

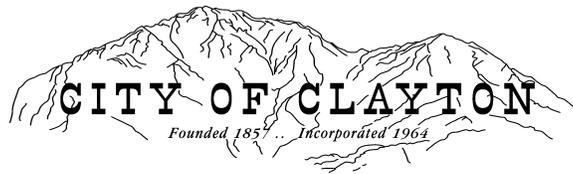
PUBLIC REVIEW DRAFT

CLAYTON COMMUNITY CHURCH PROJECT ENVIRONMENTAL IMPACT REPORT



LSA

May 2011



**NOTICE OF AVAILABILITY
CLAYTON COMMUNITY CHURCH PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT (EIR)
AND NOTICE OF PUBLIC HEARING – MAY 24, 2011**

NOTICE IS HEREBY GIVEN that the City of Clayton, as Lead Agency, has completed a Draft Environmental Impact Report (Draft EIR) for the Clayton Community Church Project, as described below.

PUBLIC HEARING: The Clayton Planning Commission is scheduled to receive public comments on the Draft EIR on **May 24, 2011, at 7:00 p.m.** in Hoyer Hall at the Clayton Community Library, 6125 Clayton Road, Clayton, California.

PUBLIC REVIEW TIMELINE: The public review for the Draft EIR begins on May 11, 2011 and ends on June 25, 2011. The City must receive all written comments regarding the adequacy of the Draft EIR within this time period. Written comments may be submitted in person, by mail, by e-mail, or by fax. The mailing and physical address is City of Clayton City Hall, 6000 Heritage Trail, Clayton, CA 94517-1250, the e-mail address is dwoltering@ci.clayton.ca.us, and the fax number is (925) 672-4917. Direct all comments to David Woltering, AICP, Community Development Director.

DOCUMENT AVAILABILITY: Copies of the Draft EIR are available for review Monday through Friday, between the hours of 9:00 a.m. and 5:00 p.m., at the City of Clayton City Hall, Community Development Department, 3rd floor, 6000 Heritage Trail, Clayton, CA 94517-1250, except on specified holidays. The Draft EIR is also available at the City of Clayton Library, 6125 Clayton Road, and on the City of Clayton Website at www.ci.clayton.ca.us. Additionally, CDs of this document may be purchased at the Clayton Community Development Department.

PROJECT LOCATION: The project site is an approximately 2.3-acre property located at 6005 Main Street in downtown Clayton. The site, which comprises two parcels (APNs 118-560-010-1 and 119-011-003), is bounded by Clayton Road to the north; a parking lot to the east; Main Street to the south; and Main Street and a landscaped area to the west. The site is not on a list of sites enumerated under Section 65962.5 of the Government Code, including but not limited to a list of hazardous waste facilities.

PROJECT DESCRIPTION: The primary objective of the proposed project is to develop a new church and associated facilities on the subject property to serve the Clayton Community Church congregation and the local community. The project would result in the demolition of the former Pioneer Inn building which exists on the subject property and the redevelopment of the site with four buildings, including a 500-seat sanctuary, retail and office space, and associated facilities. The proposed buildings would comprise approximately 42,000 square feet of interior space.

The proposed buildings include the following:

- Building 1, which would be located in the northwestern portion of the site, would be a two-story 22,244-square-foot sanctuary building containing up to 500 seats.
- Building 2, which would be located slightly southeast of Building 1, would contain a total of 8,516 square feet of interior space, including 2,261 square feet of retail space and 6,255 square feet of office space, church classrooms, and a welcome center. This building would be two stories.
- Building 3, which would be located on the site of the Pioneer Inn, would contain a total of 10,204 square feet of interior space, including 5,696 square feet of retail space and 4,508 square feet of office space. Building 3 would be two stories.

- Building 4, which would be located in the northeastern corner of the project site, would be a one-story building containing a total of 1,200 square feet of space and would function as the Church's teen center.

The project would be phased, with Buildings 1 and 2 proposed for development as part of Phase 1 and Building 3 developed as part of Phase 2. Building 4 would be constructed in one of the first two phases or in a separate third phase.

The church would be a venue for regular weekday and weekend activities, in addition to Sunday morning services. Regular weekly activities would range from bible study on Monday mornings (with attendance by 10 to 40 persons) to Friday night (summer) movie nights (attended by up to 500 persons). Sunday services occur from 8:45 a.m. to 1:00 p.m. and would be attended by approximately 450 persons. Special events, generally held once a year, would include a soap box derby (attended by approximately 1,000 persons), two separate Easter gatherings (each attended by approximately 1,000 persons), and a "Daddy/Daughter Dance" (attended by approximately 150 persons). Weddings, funerals, and other events would also occur at the church.

Approximately 54 parking spaces would be provided on the project site, mainly in an on-site parking lot located between Buildings 3 and 4. The on-site parking requirement for the project as proposed would be approximately 222 spaces, per the Clayton Municipal Code. Because the proposal for on-site parking falls short of City code requirements, the project applicant proposes to utilize existing off-site parking (via shared use agreements to use parking on other properties and existing on-street parking) to make up for the shortfall of on-site spaces. One such agreement, involving approximately 34 parking spaces at the KinderCare Learning Center (to the east of the site) has been executed by the Church and may be subject to further City approval.

Approximately 55 percent of the site would consist of open space. Based on information provided by the project applicant, the project was designed to concentrate additional retail space along Main Street, so as to support existing retail uses in the vicinity. The architecture of the buildings fronting Main Street would reflect "the western style of buildings found in Clayton and other historic, early western town centers throughout California."

The project would require several entitlements from the City of Clayton, including a General Plan Amendment (to allow assembly uses); Specific Plan Amendment (to allow assembly uses and establish lower on-site parking requirements); Zoning Amendments (to allow assembly uses; establish a consistent zoning designation for the site; and establish lower on-site parking requirements); Use Permit Approval; Development Plan Approval; and Tentative Parcel Map Approval (to divide the site into four parcels).

SIGNIFICANT ANTICIPATED ENVIRONMENTAL EFFECTS: The Draft EIR provides an evaluation of the potential environmental impacts of the proposed project and recommends mitigation measures to reduce impacts to a less than significant level, as feasible. The proposed project is not anticipated to result in any significant unavoidable environmental impacts, assuming the ability to successfully implement the recommended mitigation measures in the report. Impacts associated with the following environmental topics would be significant without the implementation of mitigation measures but would be reduced to a less-than-significant level if the mitigation measures recommended in the EIR are implemented: Land Use and Planning Policy; Transportation, Circulation, and Parking; Air Quality; Noise; Cultural Resources; Visual Resources; and Hydrology and Water Quality.

QUESTIONS: If you have any questions about this proposed project, please contact David Woltering, Clayton Community Development director, (925) 673-7340 or dwoltering@ci.clayton.ca.us.

PUBLIC REVIEW DRAFT

CLAYTON COMMUNITY CHURCH PROJECT ENVIRONMENTAL IMPACT REPORT

Submitted to:

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I. INTRODUCTION

A. PURPOSE OF THE EIR

In compliance with the California Environmental Quality Act (CEQA), this report describes the environmental consequences of the Clayton Community Church Project (project) proposed for a 2.3-acre (gross¹) site in the City of Clayton (City). This Environmental Impact Report (EIR) is designed to inform City decision-makers, responsible agencies and the general public of the proposed project and the potential physical consequences of project approval. This EIR also examines alternatives to the proposed project and recommends mitigation measures to reduce or avoid potentially significant physical impacts. The City of Clayton is the Lead Agency for environmental review of the proposed project. This EIR will be used by the City and the public in their review of the proposed project and associated approvals, including those described in Chapter III.

B. PROPOSED PROJECT

The proposed project is intended to develop a new church worship center and associated facilities on the project site in order to serve the Clayton Community Church congregation. The project is designed to include a mix of uses, including retail and office uses, in order to contribute to the vitality of downtown Clayton and capitalize on the location of the project site at a key western entrance to downtown. The project is intended to accommodate activities beyond basic worship services, including summer movie nights, concerts, a soap box derby, and other special events (such as funerals, banquets, weddings, parties, and community theater), in addition to regular weekday meetings, such as bible studies. As part of the project, the existing structure on the site (formerly the Pioneer Inn) would be demolished and four buildings would be constructed, comprising approximately 42,000 square feet of interior space. In addition, 54 parking spaces would be provided on the project site.

C. EIR SCOPE

The City of Clayton circulated a Notice of Preparation (NOP) for this EIR on August 12, 2010. The NOP notified responsible agencies and interested parties that an EIR would be prepared for the project and indicated the environmental topics anticipated to be addressed in this EIR. The NOP was mailed to public agencies, organizations, and individuals likely to be interested in the potential impacts of the project (agencies and the public were also notified of the NOP through direct mailings, publication in the Contra Costa Times, and the City's website). Comments on the NOP were received by the City and considered during preparation of the EIR. A scoping session for the Draft EIR was held as a public meeting on August 26, 2010. A copy of the NOP and the comment letters received are included in Appendix A of this EIR.

¹ "Gross" square footage is the total square footage of the project site, including buildable and non-buildable areas.

The following environmental topics are addressed as separate sections in this EIR:

- A. Land Use and Planning Policy
- B. Transportation, Circulation, and Parking
- C. Air Quality
- D. Global Climate Change
- E. Noise
- F. Cultural Resources
- G. Visual Resources
- H. Hydrology and Water Quality

D. REPORT ORGANIZATION

This EIR is organized into the following chapters:

- *Chapter I – Introduction:* Discusses the overall EIR purpose and provides a summary of the proposed project, environmental impact report scope, and organization of the EIR.
- *Chapter II – Summary:* Provides a summary of the proposed project and of the impacts that would result from implementation of the proposed project, and describes mitigation measures recommended to reduce or avoid significant impacts. A discussion of alternatives to the proposed project is also provided.
- *Chapter III – Project Description:* Provides a description of the project site, site development history, project objectives, required approval process, and details of the project itself.
- *Chapter IV – Setting, Impacts and Mitigation Measures:* Describes the following for each environmental technical topic: existing conditions (setting); potential environmental impacts and their level of significance; and measures to mitigate identified impacts. Potential adverse impacts are identified by level of significance, as follows: less-than-significant impact (LTS), significant impact (S), and significant and unavoidable impact (SU). The significance of each impact is categorized before and after implementation of any recommended mitigation measure(s).
- *Chapter V – Alternatives:* Provides an evaluation of four alternatives to the proposed project in addition to the No Project alternative.
- *Chapter VI – CEQA Required Assessment Conclusions:* Provides additional specifically-required analyses of the proposed project's growth-inducing effects, significant irreversible changes, cumulative impacts, and effects found not to be significant.
- *Chapter VII – Report Preparation:* Identifies preparers of the EIR, references used, and persons and organizations contacted.

II. SUMMARY

A. PROJECT UNDER REVIEW

This EIR has been prepared in order to evaluate the environmental impacts of the proposed Clayton Community Church Project (project) proposed for an approximately 2.3-acre (gross) site in the City of Clayton. A detailed description of the proposed project is provided in Chapter III, Project Description.

The proposed project is intended to develop a new church worship center and associated facilities on the project site in order to serve the Clayton Community Church congregation. The project is designed to include a mix of uses, including retail and office uses, in order to contribute to the vitality of downtown Clayton and capitalize on the location of the project site as a key western entrance to downtown. The project is intended to accommodate activities beyond basic worship services, including summer movie nights, concerts, a soap box derby, and other special events (such as funerals, banquets, weddings, parties, and community theater), in addition to regular weekday meetings, such as bible studies. As part of the project, the existing structure on the site (formerly the Pioneer Inn) would be demolished and four buildings would be constructed, comprising approximately 42,000 square feet of interior space. In addition, 54 parking spaces would be provided on the project site.

B. SUMMARY OF IMPACTS AND MITIGATION MEASURES

This summary provides an overview of the analysis contained in Chapter IV, Setting, Impacts and Mitigation Measures. CEQA requires a summary to include discussion of: 1) potential areas of controversy; 2) significant impacts; 3) recommended mitigation measures; and 4) alternatives to the proposed project.

1. Potential Areas of Controversy

The City received a total of eight letters in addition to the verbal comments presented at the scoping session on August 26, 2010 (see Appendix A). These potential areas of controversy surrounding the proposed project identified as part of the EIR scoping and Notice of Preparation (NOP) process are evaluated in Chapters IV (Setting, Impacts, and Mitigation Measures) and VI (CEQA-Required Assessment Conclusions) of this EIR and listed below.

- Stormwater retention
- Visual changes due to redevelopment of the site
- The provision of community services
- Traffic
- Land use in the context of applicable planning documents (General Plan and Town Center Specific Plan)
- Fiscal issues
- Parking

- Proximity of site to establishments with liquor licenses
- Air pollution

2. Significant and Less-Than-Significant Impacts

Under CEQA, a significant impact on the environment is defined as: a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.¹

As discussed in Chapter IV of this EIR, implementation of the proposed project has the potential to result in adverse environmental impacts in several areas. Impacts associated with the following environmental topics would be significant without the implementation of mitigation measures, but would be reduced to a less-than-significant level if the mitigation measures recommended in this EIR are implemented:

- Land Use and Planning Policy
- Transportation, Circulation, and Parking
- Air Quality
- Noise
- Cultural Resources
- Visual Resources
- Hydrology and Water Quality

Impacts associated with the following environmental topic would be considered less than significant and would not require any mitigation measures based on the identified criteria of significance:

- Global Climate Change

3. Significant Unavoidable Impacts

As discussed in Chapter IV of this EIR, the project would result in no significant unavoidable impacts.

4. Alternatives to the Project

The following alternatives to the project are considered in this EIR:

- The **No Project alternative**, under which the project site would not be redeveloped in the short-term, and would remain generally in its existing condition.
- The **Policy Consistency alternative**, which assumes that the site would be redeveloped with a mix of uses (retail, office, and residential uses) consistent with the Town Center Specific Plan, General Plan, Zoning Ordinance, and Parking Code (and development would not exceed the maximum building envelope permitted in the General Plan). This alternative would entail the

¹ CEQA Sections 21060.5 and 21068.

development of 40,000 square feet of ground-floor retail uses, 20,000 square feet of second-floor office uses, and 20 second-floor multi-family residential units.

- The **Mixed Use/Church alternative**, which assumes that development of the site would occur in general accordance with the development guidelines of the Specific Plan, General Plan, and Zoning Ordinance, but the Town Center Specific Plan would be amended to allow Religious Assembly uses in areas designated Town Center Commercial (with a Use Permit). Under this alternative, a new sanctuary would be developed on the project site, but it would be smaller than the one currently proposed (the sanctuary itself would be 12,000 square feet and would contain only 250 fixed seats). Other uses that would be developed as part of this alternative include 4,000 square feet of church/accessory space, 15,000 square feet of ground-floor retail space, and 11 second-floor multi-family residential units.
- The **Off-Site alternative**, which assumes that the project would be developed on an approximately 5.2-acre site outside the Town Center. The off-site location, which is located just east of the intersection of Marsh Creek Road and Pine Lane in unincorporated Contra Costa County, is informally known as the Sorensen Property.

The No Project alternative is identified as the environmentally superior alternative (the Policy Consistency alternative is the secondary environmentally superior alternative). Each alternative is described and analyzed in Chapter V of this EIR.

C. SUMMARY TABLE

Table II-1 identifies the impacts and mitigation measures for the proposed project. The information in the tables is organized to correspond with environmental issues discussed in Chapter IV. The tables are arranged in four columns: 1) impacts; 2) level of significance prior to mitigation measures; 3) mitigation measures; and 4) level of significance after mitigation. For a complete description of potential impacts and recommended mitigation measures, please refer to Chapter IV.

Table II-1: Summary of Impacts and Mitigation Measures

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
A. Land Use and Planning Policy			
<p><u>LU-1</u>: The proposed project, by introducing religious uses to the Town Center, would conflict with the intent of the General Plan, Town Center Specific Plan, and Zoning Ordinance, resulting in physical environmental impacts related to parking supply and demand and the future development viability of Downtown Clayton.</p>	S	<p><u>LU-1</u>: Implement Mitigation Measure TRANS-1.</p>	LTS
B. Transportation, Circulation, and Parking			
<p><u>TRANS-1</u>: The project would result in inadequate parking capacity.</p>	S	<p><u>TRANS-1</u>: The project sponsor shall implement the following measures to the satisfaction of the Community Development Director prior to the issuance of a building permit:</p> <ul style="list-style-type: none"> • Clayton Community Church shall develop a site-specific parking management program that incorporates the following elements: <ul style="list-style-type: none"> ○ Pursue reciprocal parking agreements with adjacent businesses that are closed or have underutilized parking during time periods of church operations, or identify opportunities for off-site parking with shuttle service. Based on a total parking supply of 57 spaces on a weekday (i.e., 54 on-site spaces and three new spaces along Main Street) and 86 spaces on a weekend (i.e., 54 on-site spaces, three new spaces along Main Street, and 29 spaces on the Kindercare site per a reciprocal parking agreement), an additional 81 spaces would be needed on weekdays and an additional 223 spaces would be needed on Sundays for typical church operations. Although the parking demand during special events could exceed the total parking supply (both on- and off-site), special events would not occur on a weekly basis. In order to ensure that church members utilize parking spaces per reciprocal parking agreements, church staff shall make announcements verbally and by email, and distribute flyers at the end of church services and meetings indicating the church-designated parking areas. ○ Enter into a reciprocal parking agreement with the City that would allow the public to utilize on-site parking spaces at the church during Town Center events, such as the annual Art and Wine Festival. ○ Develop a public information program to make parishioners aware of the availability of parking at the Clayton Community Library and the lot located at Heritage Trail. Parishioners should be directed to utilize these alternative parking areas (when parking in these areas is available) prior to seeking parking in downtown public parking spaces. 	LTS

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>TRANS-1</u> <i>Continued</i></p>		<ul style="list-style-type: none"> ○ During peak attendance events, provide free valet parking such that vehicles are parked in an off-site area. This measure would minimize the demand for downtown public parking spaces and eliminate the need to circle the downtown area looking for parking. ○ Schedule non-religious activities that would tend to generate peak attendance (such as the Annual Banquet, concerts, and school plays) during times when downtown parking demand is otherwise low, such as during weekday evenings. In addition, coordinate large events with the Town Center event schedule to avoid scheduling large church and community events at the same time. ● The Clayton Community Church shall pay a pro-rata share of the cost to develop a Downtown Parking Management Program (DPMP). The DPMP shall ensure adequate parking availability for church activities as well as other existing and future merchants and patrons in the downtown area. The DPMP shall include measures such as the following: <ul style="list-style-type: none"> ○ Create a Transportation Management Association to collect public/private funds to promote the use of ridesharing/commuting among all downtown patrons, including church members. ○ Require payment for parking (e.g., installation of parking meters for on-street and/or off-street spaces, and monthly/yearly permits for public parking lots). ○ Identify additional parking opportunities and options for funding new parking in the downtown area. ○ Require private parking spaces to be “shared” with other downtown uses so that parking is maintained for individual businesses but excess parking is shared among individual parcels. ○ Identify additional opportunities for ridesharing, transit, and alternative transportation to/from and within downtown Clayton. ○ Ensure that public parking spaces are available at all times (i.e., a 5 percent parking buffer). If adequate parking is not provided (i.e., less than 5 percent parking buffer or a deficit occurs) in the downtown area, the City shall post signs with time restrictions for on-street parking and/or increase fees for metered spaces (if a fee system is implemented). 	

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>TRANS-2</u>: The project, in combination with reasonably foreseeable future development in the Town Center, would result in inadequate parking capacity.</p>	S	<p><u>TRANS-2</u>: Implement Mitigation Measure TRANS-1.</p>	LTS
C. Air Quality			
<p><u>AIR-1</u>: Construction of the proposed project would generate air pollutant emissions that could expose sensitive receptors to substantial pollutant concentrations.</p>	S	<p><u>AIR-1</u>: Consistent with guidance from the BAAQMD, the following actions shall be required of construction contracts and specifications for the project.</p> <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt tracked-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. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • 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. • 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 reminding workers of this requirement shall be provided at all access points. • 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. • A publicly visible sign shall be posted with the telephone number and person to contact at the City of Clayton regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's 24-hour phone number shall also be visible to ensure compliance with applicable regulations. 	LTS
D. Global Climate Change			
<p><i>There are no significant global climate change impacts.</i></p>			

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
E. Noise			
<p><u>NOI-1</u>: Construction period activities could create significant temporary noise impacts on existing noise sensitive land uses in the project vicinity.</p>	S	<p><u>NOI-1</u>: The project sponsor and construction contractor shall implement the following measures at the construction site:</p> <ul style="list-style-type: none"> • All construction equipment must have appropriate sound muffling devices, which shall be properly maintained and used at all times such equipment is in operation. • Where feasible, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site. • The construction contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project. <p>Except as otherwise permitted, all noise producing construction activities shall be restricted to the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday. Any construction beyond the limited time is strictly prohibited unless authorized by the City Engineer or designee or by project conditions of approval.</p>	LTS
<p><u>NOI-2</u>: Local traffic with implementation of the proposed project would generate long-term noise resulting in a permanent increase in existing ambient noise levels in the project vicinity and would expose sensitive receptors to noise levels in excess of established standards.</p>	S	<p><u>NOI-2</u>: All buildings of the proposed project shall include an alternative form of ventilation, such as air conditioning systems, to ensure that windows can remain closed for prolonged periods of time to meet the interior noise standard of 45 dBA L_{dn} established by the City.</p>	LTS
F. Cultural Resources			
<p><u>CULT-1</u>: Ground-disturbing activities associated with site preparation and construction could adversely affect archaeological cultural resources.</p>	S	<p><u>CULT-1</u>: Project ground-disturbing construction shall be monitored by a qualified archaeologist. The archaeological monitor shall be empowered to halt construction activities at the location of the discovery to review possible archaeological material and to protect the resource while the finds are being evaluated. Monitoring shall continue until, in the archaeologist's judgment, cultural resources are not likely to be encountered.</p>	LTS

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>CULT-1</u> <i>Continued</i></p>		<p>Because the monitoring would occur in a sensitive area with the potential to contain intact deposits, the archaeological monitoring shall be implemented through the execution of an Archaeological Monitoring and Evaluation Plan (AMEP). The purpose of the AMEP is to ensure that any significant archaeological deposits discovered during construction are identified, evaluated, and appropriately treated through the use of a pre-established research design and field evaluation strategy, consistent with the requirements of <i>CEQA Guidelines</i> Section 15126.4 (b)(3)(C). The AMEP shall be approved by the City in advance of construction, and its implementation shall be made a condition of the issuance of a grading or building permit for the project. The AMEP shall be prepared by professionals who meet the Secretary of the Interior’s Professional Qualifications Standards in historical archaeology and prehistoric archaeology (36 CFR Part 61, Appendix A). The AMEP shall include a construction monitoring component and an evaluation component.</p> <p>The <i>monitoring</i> component of the AMEP shall contain a site-specific archaeological sensitivity assessment of the project site to: 1) identify areas that will be subject to monitoring; 2) define the frequency of monitoring; and 3) identify those areas with little to no possibility of containing intact deposits. This assessment should focus on the project site’s land use history based on historical maps and photographs, past site improvement/utilities construction plans, historical documents, and soils/geotechnical information. The possibility for encountering human remains during construction should also be addressed by consultation with the appropriate descendant groups.</p> <p>The <i>evaluation</i> component of the AMEP shall guide fieldwork if archaeological remains identified during monitoring are evaluated for legal significance. The purpose of this component is to establish an evaluation process to shorten the time necessary to respond to and evaluate discoveries made during archaeological monitoring. The evaluation component shall contain a field study and technical analysis work plan to guide the methods and procedures to be used during the significance evaluation. The treatment of human remains during the evaluation process shall be addressed, and procedures for the respectful treatment of such remains shall be developed through consultation with descendant communities prior to the final draft of the AMEP.</p>	

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>CULT-1</u> <i>Continued</i>		<p>In the event that a significant archaeological deposit is identified, the deposit shall be treated in accordance with the recommendations of the evaluating archaeologist, in consultation with the City and descendant groups. In accordance with <i>CEQA Guidelines</i> Section 15126.4(b)(3), preservation in place through project redesign, or a combination of redesign and site capping, shall be among the options considered by the City in consultation with the archaeologist.</p> <p>Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results of the monitoring, including any evaluation and treatment conducted as a result of a find. The report shall be submitted to the project applicant, the City, and the NWIC.</p> <p>This approach shall provide for the identification of potential impacts, avoidance of such impacts if possible, and the mitigation of those impacts that are unavoidable. This shall occur through the recovery of that scientifically consequential information that would otherwise be lost if the archaeological deposit was otherwise destroyed.</p>	
<u>CULT-2</u> : Ground-disturbing activities associated with site preparation and construction could adversely affect paleontological resources.	S	<u>CULT-2</u> : If paleontological resources are discovered during project activities, all work within 25 feet of the discovery shall be redirected and a qualified paleontologist shall be contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. It is recommended that adverse effects to paleontological resources be avoided by project activities. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, adverse effects on the resources must be avoided, or such effects shall be mitigated. Mitigation can include, but is not necessarily limited to: excavation of paleontological resources using standard paleontological field methods and procedures; laboratory and technical analyses of recovered materials; production of a report detailing the methods, findings, and significance of recovered fossils; curation of paleontological materials at an appropriate facility (e.g., the University of California Museum of Paleontology) for future research and/or display; an interpretive display of recovered fossils at a local school, museum, or library; and public lectures at local schools on the findings and significance of the site and recovered fossils. The City shall ensure that any mitigation involving excavation of the resource is implemented prior to project construction or actions that could adversely affect the resource in question.	LTS

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>CULT-2</u> <i>Continued</i>		<p>Upon completion of the assessment, the paleontologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the paleontological resources discovered. This report should be submitted to the project proponent, the City, and the paleontological curation facility.</p> <p>Paleontological resources include fossil plants and animals, and evidence of past life such as trace fossils and tracks. Ancient marine sediments may contain invertebrate fossils such as snails, clam and oyster shells, sponges, and protozoa; and vertebrate fossils such as fish, whale, and sea lion bones. Fossil vertebrate land animals may include bones of reptiles, birds, and mammals. Paleontological resources also include plant imprints, petrified wood, and animal tracks.</p>	
<u>CULT-3</u> : Ground-disturbing activities associated with site preparation and the construction of building foundations and underground utilities could disturb human remains, including those interred outside of formal cemeteries.	S	<u>CULT-3</u> : If human remains are encountered, work within 25 feet of the discovery should be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. The project proponent shall also be notified. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission shall identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the project sponsor, the City, the MLD, and the NWIC.	LTS
G. Visual Resources			
<u>VIS-1</u> : The proposed project could increase the amount of light and glare in downtown Clayton.	S	<u>VIS-1</u> : The project applicant shall prepare a final lighting plan and photometric study and submit them to the City for review and approval prior to issuance of a building permit. City staff shall review the plan to ensure that any outdoor lighting for the project is oriented downwards and is designed to minimize lighting or glare off-site.	LTS

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
H. Hydrology and Water Quality			
<p><u>HYD-1</u>: Runoff from the project, due to the increase in impervious area, could exceed the capacity of the existing stormwater drainage system.</p>	S	<p><u>HYD-1</u>: During the final design process, the project applicant shall calculate pre- and post-project peak flow rates for the 25-year and 50-year storm events, which would be conveyed via overland flow. If required, the project applicant shall provide on-site flood control detention where post-project peak discharge rates exceed pre-project rates, in accordance with the City of Clayton's standard conditions of approval.</p>	LTS
<p><u>HYD-2</u>: Project construction period activities could generate stormwater runoff that could cause or contribute to a violation of water quality standards or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade the water quality of Mitchell Creek/Mount Diablo Creek and ultimately Suisun Bay.</p>	S	<p><u>HYD-2</u>: Consistent with the requirements of the Statewide Construction General Permit, the project applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential adverse impacts to surface water quality through the project construction period. The SWPPP shall be designed to address the following objectives:</p> <p>(1) all pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled; (2) where not otherwise required to be under a Water Board permit, all non-storm water discharges are identified and either eliminated, controlled, or treated; (3) site Best Management Practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the BAT/BCT standard; (4) calculations and design details as well as BMP controls for site run-on are complete and correct; and (5) stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.</p> <p>The SWPPP shall be prepared by a Qualified SWPPP Developer. The SWPPP shall include the minimum BMPs required in Attachment D for Risk Level 2 dischargers, or Attachment E for Risk Level 3 dischargers (as applicable, based on final determination of the project's Risk Level status [to be determined as part of the Notice of Intent for coverage under the Construction General Permit]). These include: BMPs for erosion and sediment control, site management/housekeeping/waste management, management of non-stormwater discharges, infiltration and runoff controls, and BMP inspection/maintenance/repair activities. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook-Construction or the Caltrans Storm Water Quality Handbook Construction Site BMPs Manual.</p>	LTS

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HYD-2</u> <i>Continued</i></p>		<p>The SWPPP shall include a construction site monitoring program that identifies requirements for dry weather visual observations of pollutants at all discharge locations, and as appropriate (depending on the Risk Level), sampling of the site effluent and receiving waters (receiving water monitoring is only required for some Risk Level 3 dischargers). A Qualified SWPPP Practitioner shall be responsible for implementing the BMPs at the site and performing all required monitoring and inspection/maintenance/repair activities. If the project is Risk Level 2 or 3, the project applicant shall also prepare a Rain Event Action Plan as part of the SWPPP.</p> <p>The following are the types of BMPs that shall be implemented for the project (at a minimum), subject to review and approval by the Water Board/City Engineer.</p> <p><u>Erosion Control BMPs</u></p> <ul style="list-style-type: none"> • <i>Scheduling.</i> To reduce the potential for erosion and sediment discharge, construction shall be scheduled to minimize ground disturbance during the rainy season. The project applicant shall: <ul style="list-style-type: none"> ○ Sequence construction activities to minimize the amount of time that soils remain disturbed. ○ Stabilize all disturbed soils as soon as possible following the completion of ground- disturbing work. ○ Install erosion and sediment control BMPs prior to the start of any ground-disturbing activities. • <i>Preservation of Existing Vegetation.</i> Where feasible, existing vegetation shall be preserved to provide erosion control. • <i>Stabilize Soils.</i> Hydroseeding, geotextile fabrics and mats, mulch, or soil binders shall be used, as appropriate, to reduce erosion on exposed soil surfaces. • <i>Stabilize Streambanks.</i> When working along stream banks or within channels, BMPs shall be implemented to minimize channel erosion and sedimentation. Proper erosion and sediment controls, such as silt fences, mulch, geotextiles, and hydroseeding, shall be used. To the extent possible, existing vegetation that stabilizes the stream banks shall be preserved. 	

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HYD-2</u> <i>Continued</i></p>		<ul style="list-style-type: none"> • <i>Earth Dikes, Drainage Swales and Slope Drains.</i> Earth dikes, drainage swales, or slope drains shall be constructed to divert runoff away from exposed soils and stabilized areas, and redirect the runoff to a desired location, such as a sediment basin. • <i>Outlet Protection and Velocity Dissipation Devices.</i> Rock, concrete rubble, or grouted riprap shall be installed at culvert and pipe outlets to drainage conveyances, to prevent scour of the soil caused by concentrated high-velocity flows. <p><u>Sediment Control BMPs</u></p> <ul style="list-style-type: none"> • <i>Silt Fence/Fiber Roll.</i> Silt fences or fiber rolls shall be installed around the perimeter of the areas affected by construction, at the toe of slopes, around storm drain inlets, and at outfall areas, to prevent offsite sedimentation. • <i>Street Sweeping and Vacuuming.</i> Areas with visible sediment tracking shall be swept or vacuumed daily, to prevent the discharge of sediment into the stormwater drainage system or creeks. • <i>Storm Drain Inlet Protection.</i> Storm drains shall be protected using a filter fabric fence, gravel bag barrier, or other methods, to allow sediments to be filtered or settle out before runoff enters drain inlets. • <i>Check Dams.</i> Barriers shall be constructed of rock, gravel bags, sand bags, or fiber rolls across a constructed swale or drainage ditch, to reduce the effective slope of the channel. This reduces the velocity of runoff, which allows sediment to settle and reduces erosion. • <i>Sediment Traps.</i> Sediment traps shall be constructed where sediment-laden runoff may enter the stormwater drainage systems or creeks. Sediment traps are appropriate for drainage areas less than 5 acres. <p><u>Wind Erosion Control BMPs</u></p> <ul style="list-style-type: none"> • <i>Dust Control.</i> Potable water shall be applied using water trucks to alleviate nuisance caused by dust. Water application rates shall be minimized to prevent erosion and runoff. • <i>Stockpile Management.</i> Silt fences shall be used around the perimeter of stockpiles, and stockpiles shall be covered to prevent wind dispersal of sediment. 	

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HYD-2</u> <i>Continued</i></p>		<p><u>Tracking Controls</u></p> <ul style="list-style-type: none"> • <i>Stabilized Construction Entrance/Exit.</i> Construction site entrances and exits shall be graded and stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles. • <i>Stabilized Construction Roadway.</i> Access roads, parking areas, and other on-site vehicle transportation routes shall be stabilized immediately after grading is completed, and frequently maintained to prevent erosion and to control dust. • <i>Tire Wash.</i> A tire washing facility shall be installed at stabilized construction access points to allow for tire washing when vehicles exit the site to prevent tracking of dirt and mud onto public roads. <p><u>Non-Stormwater Controls</u></p> <ul style="list-style-type: none"> • <i>Dewatering.</i> The SWPPP shall include a dewatering plan for non-contaminated groundwater specifying methods of water collection, transport, treatment, and discharge. The discharger shall consult with the Water Board regarding any required permit (other than the Construction General Permit) or Basin Plan conditions prior to discharging groundwater to land, storm drains, or receiving waters. Water produced by dewatering shall be impounded in holding tanks, sediment basins, or other holding facilities to settle the solids and provide other treatment as necessary prior to discharge to receiving waters. Discharges of water produced by dewatering shall be controlled to prevent erosion. • <i>Illicit Connection/Discharge Detection and Reporting.</i> Contractors shall regularly inspect the site for evidence of illicit connections, illegal dumping, or discharges. Such illicit activities shall immediately be reported to the City. • <i>Vehicle and Equipment Cleaning.</i> Construction equipment shall be washed regularly in a designated stabilized area on-site, or offsite. Steam cleaning shall not be performed on-site. Phosphate-free, biodegradable soaps shall be used for on-site activities. Wash water from on-site activities shall be contained and infiltrated, to avoid discharges to drain inlets and creeks. 	

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HYD-2</u> <i>Continued</i></p>		<ul style="list-style-type: none"> • <i>Vehicle and Equipment Fueling and Maintenance.</i> Vehicles and equipment shall be inspected daily for leaks. Perform vehicle maintenance and fueling off-site whenever possible. If maintenance and fueling must take place on-site, designated areas shall be located at least 50 feet away from storm drain inlets, drainage courses, and receiving waters. Fueling areas shall be protected with berms and dikes to prevent infiltration and runoff, and to contain spills. Fueling shall be performed on level grade. Nozzles shall be equipped with automatic shutoffs to control drips. Stored fuel shall be enclosed or covered. Drip pans shall be used for all vehicle and equipment maintenance activities. Spill kits shall be available in maintenance and fueling areas, and spills shall be removed with absorbent materials and not washed down with water. If spills or leaks occur, contaminated soil and cleanup materials shall be properly disposed. • <i>Paving and Grinding Operations.</i> Proper practices shall be implemented to prevent infiltration and runoff, and to properly dispose of waste. Paving and grinding activities shall be avoided during the rainy season, when feasible. <p><u>Waste Management and Materials Pollution Control BMPs</u></p> <ul style="list-style-type: none"> • <i>Material Delivery and Storage and Use.</i> Materials such as detergents, concrete compounds, petroleum products, and hazardous materials shall be stored in a designated area away from vehicular traffic, drain inlets, and Mitchell Creek. The materials shall be stored on pallets with secondary containment. Spill clean-up materials, material safety data sheets, a material inventory, and emergency contact numbers shall be maintained in the storage area. • <i>Spill Prevention and Control.</i> Proper procedures shall be implemented to contain and clean-up spills and prevent material discharges into the storm drain system. • <i>Waste Management.</i> Solid waste shall be collected in designated areas, and stored in watertight containers located in a covered area, or with secondary containment. Waste shall be removed from the site regularly. Hazardous wastes shall be stored and disposed in accordance with applicable regulatory requirements. 	

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HYD-2</u> <i>Continued</i>		<ul style="list-style-type: none"> • <i>Sanitary/Septic Waste Management.</i> Portable toilets shall be located at least 50 feet away from drain inlets and waterbodies, and away from paved areas. • <i>Stockpile Management.</i> Stockpiles shall be surrounded by sediment controls, covered, and located at least 50 feet from concentrated flows of stormwater, inlets, and creeks. • <i>Concrete Waste Management.</i> Concrete washout shall be performed offsite, or in a designated area at least 50 feet away from storm drain inlets or creeks. A temporary pit or bermed area shall be constructed where the waste can be discharged and allowed to set for proper disposal. • <i>Training.</i> Construction site personnel shall receive training on implementing all BMPs included in the SWPPP. A Qualified SWPPP Practitioner shall perform all BMP inspection/maintenance/repair and site monitoring activities. 	
<u>HYD-3:</u> Operational period activities within the project site could generate stormwater runoff that could cause or contribute to a violation of water quality standards or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade the water quality of Mitchell Creek/Mount Diablo Creek and ultimately Suisun Bay.	S	<u>HYD-3:</u> In accordance with the MRP, the County's <i>Stormwater C.3 Guidebook</i> , and City of Clayton Municipal Code Chapter 13.12, the project applicant shall submit an Operations and Maintenance (O&M) Plan to the City with the application for a building permit. The O&M Plan shall identify the party responsible for maintenance and the sources of funds, and shall include the maintenance agreement for the Ownership Association. The O&M Plan shall include the design information/calculations and construction specifications for the Integrated Management Practices (IMPs), a maintenance plan, schedule, inspection checklist, and maintenance log for each stormwater treatment facility. The project applicant shall execute a Covenant and Agreement (C&A) acknowledging and accepting these maintenance obligations. This C&A shall be recorded at the County Recorder's Office in order to provide constructive notice to future property owners.	LTS

Source: LSA Associates, Inc., 2011.

III. PROJECT DESCRIPTION

This chapter describes the proposed Clayton Community Church Project (project) that is evaluated in this Environmental Impact Report (EIR). A description of the project site, background, and objectives is followed by details of the project itself and a summary of required approvals and entitlements.

A. PROJECT SITE

The following section describes the project site's location, surrounding land uses, and site characteristics.

1. Location

The approximately 2.3-acre (gross) project site is located in the City of Clayton, a community of approximately 10,873 people¹ located in Contra Costa County between the City of Concord and the City of Brentwood. Clayton is bordered by undeveloped land and regional open space preserves (including Black Mines Regional Preserve, Mount Diablo State Park, and Lime Ridge Regional Open Space to the north, east, and south) and the City of Concord to the west. The site is located at 6005 Main Street in downtown Clayton and comprises two parcels: APNs 118-560-010-1 and 119-011-003. These parcels are occupied by a one-story building (formerly known as the Pioneer Inn) currently used by the Clayton Community Church, a small parking lot, and undeveloped land. Figure III-1 shows the project site's regional and local geographic context.

Regional vehicular access to the project site is provided by Interstate 680 (I-680), State Route 242 (SR 242), Ygnacio Valley Road, and Clayton Road from the north, south, and west. State Route 4, and linkages such as Bailey Road, Kirker Pass Road, and Marsh Creek Road/Camino Diablo Road provide additional access routes from the north and east. Main Street and the project site are accessed primarily via Clayton Road, which is a major east/west route that borders downtown Clayton to the north. Pedestrian access is via sidewalks along Main Street and the pedestrian pathway in the western portion of the site that connects downtown Clayton to the complex of City facilities surrounding City Hall.

2. Surrounding Land Uses

The project site is located in downtown Clayton, which is organized around Main Street and Center Street, and contains a cluster of smaller-scale retail, restaurant, and office uses. Downtown is considered the physical center of Clayton. The site is bordered by the following land uses:

- *North:* Clayton Road is located to the north of the site. Beyond Clayton Road are City civic facilities, including City Hall, the Police Department, the Maintenance Department, and the Clayton Community Library (owned by the City and operated by Contra Costa County).

¹ California Department of Finance, 2009. *E-1, City/County Population Estimates with Annual Percent Change*.

- *East*: Two surface parking lots (one public and one private) are located east of the site, beyond which are the Clayton Historical Society and Museum and the Kindercare Learning Center. The Clayton Historical Society and Museum is the City's major repository of local historical information. The facility includes exhibit space and is open to the public on Wednesdays, Sundays, and by appointment. Kindercare Learning Center is a privately-operated daycare and educational facility for school-age and younger children.
- *South*: Main Street is located to the south of the site. Retail and service uses, which include a pizzeria, coffee shop, barber shop, and salon, are located on the south side of Main Street across from the project site. Diablo Street, a north/south street whose north end terminates at Main Street, extends south of the project site.
- *West*: Beyond the north/south pathway connecting downtown Clayton to the complex of City facilities surrounding City Hall (via a tunnel under Clayton Road) is a landscaped area, Mitchell Creek (which is located in a culvert at that location), and Main Street (which turns northward to meet Clayton Road). Beyond Clayton Road to the west is the Mount Diablo Elementary School.

Figure III-2 is an aerial photograph of the project site and its immediate surroundings.

3. Site Characteristics

The approximately 2.3-acre (gross) project site is occupied by a one-story building used by the Clayton Community Church for office and related purposes, a parking lot, and undeveloped land. The site is generally flat and is approximately 385 to 390 feet in elevation. Approximately 22 percent of the site (approximately 0.5 acre) is covered with impervious surfaces; the remaining 78 percent of the site (approximately 1.8 acre) is covered with pervious surfaces. The site generally drains from the south to the north, and most stormwater is collected in existing storm drain inlets that discharge to Mitchell Creek (which is located immediately west of the site). Runoff from the site also drains into facilities adjacent to Main Street, and then into Mitchell Creek.² Figure III-3 illustrates existing conditions on the site.

Approximately 98 percent of the project site (i.e., all of the site except for a triangle-shaped, 2,000-square-foot area in the far southeastern corner of the site) is located within Flood Zone AO, as designated by the Federal Emergency Management Agency (FEMA). FEMA defines Flood Zone AO as: "Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet. Average flood depths derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply." Average flood depths in Flood Zone AO are between 1 and 3 feet. The area along the extreme western and southwestern boundary of the site is considered a "Regulatory Floodway," which is defined by FEMA as: "the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height."³

² Carlson, Barbee & Gibson, Inc., 2009. *Stormwater Control Plan, Clayton Community Church, City of Clayton, Contra Costa County, California*. December 3.

³ Federal Emergency Management Agency, 2010. Website: www.fema.gov/. Accessed September 16.

According to the Geotechnical Investigation prepared for the project, the top layer of the site consists of 2 to 4 feet of undocumented fill consisting of loose to medium-dense silty sand and stiff to hard lean clay with varying amounts of sand and gravel. The layer of fill is generally underlain by native alluvial soils that consist of medium-dense to dense clayey gravel, poorly-graded gravel with sand, and clayey sand interbedded with layers of stiff to very-stiff clay to at least 40 feet below the surface. When borings were drilled on the project site, groundwater was encountered at depths of 10 to 18 feet below the ground surface. However, groundwater levels are expected to fluctuate due to seasonal precipitation, underground drainage patterns, and other factors.⁴ The following discussion describes other characteristics of the project site.

a. Existing Building. The project site contains one existing structure, which comprises approximately 6,800 square feet of interior space which is approved for administrative and related uses by the Clayton Community Church. The structure was originally constructed in 1857 and served as the Clayton Hotel. Following a fire in 1864, which destroyed most of the business district of Clayton, the hotel was rebuilt as a two-story hotel and tavern. After the walls of the building collapsed in 1901, the structure was rebuilt, and was operated by a succession of owners. In 1946, the building became the Pioneer Inn, a popular local restaurant. The building was operated as a restaurant until the early 1990s. In 2002, Clayton Community Church (the project sponsor) purchased the building.

b. Other Land Uses. Other land uses on the site include undeveloped land and a parking lot. Approximately 1.8 acres of the 2.3-acre (gross) site consists of undeveloped land. This area is covered with a turf, trees, and gravel. A gazebo is located to the east of the existing building on the site. A parking lot containing approximately 25 spaces is located to the west of the building and is used primarily by Church staff and members. In addition, 11 on-street parking spaces are located along the Main Street frontage of the project site, within the public right-of-way.

c. Trees. The project site contains 48 mature trees, which are predominantly members of the following species: London plane (*Platanus acerfolia*); eucalyptus (including *Eucalyptus sideroxylon* and *Eucalyptus camaldulensis*); coast live oak (*Quercus agrifolia*); olive (*Olea europea*); American pepper (*Schinus molle*); and Valley oak (*Quercus lobata*). Particularly prominent trees on the project site include a Valley oak with a 38-inch trunk diameter in the southwestern portion of the site and a eucalyptus with an 84-inch trunk diameter in the southeastern portion of the site (adjacent to the existing building).⁵

d. Circulation. Vehicle access to the project site is via Main Street. The Clayton Community Church's existing parking lot to the west of the existing building contains one driveway for entering vehicles and one driveway for existing vehicles. Pedestrian access to the site is via the pathway along the western boundary of the site and sidewalks along Main Street. The existing building's main entrance is along Main Street.

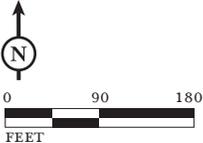
⁴ Cornerstone Earth Group, 2009. *Geotechnical Investigation, Clayton Community Church*. December 4.

⁵ Burmann, Courtney, 2009. *Arborist Report, Clayton Community Church, Clayton, California*.



LSA

FIGURE III-2



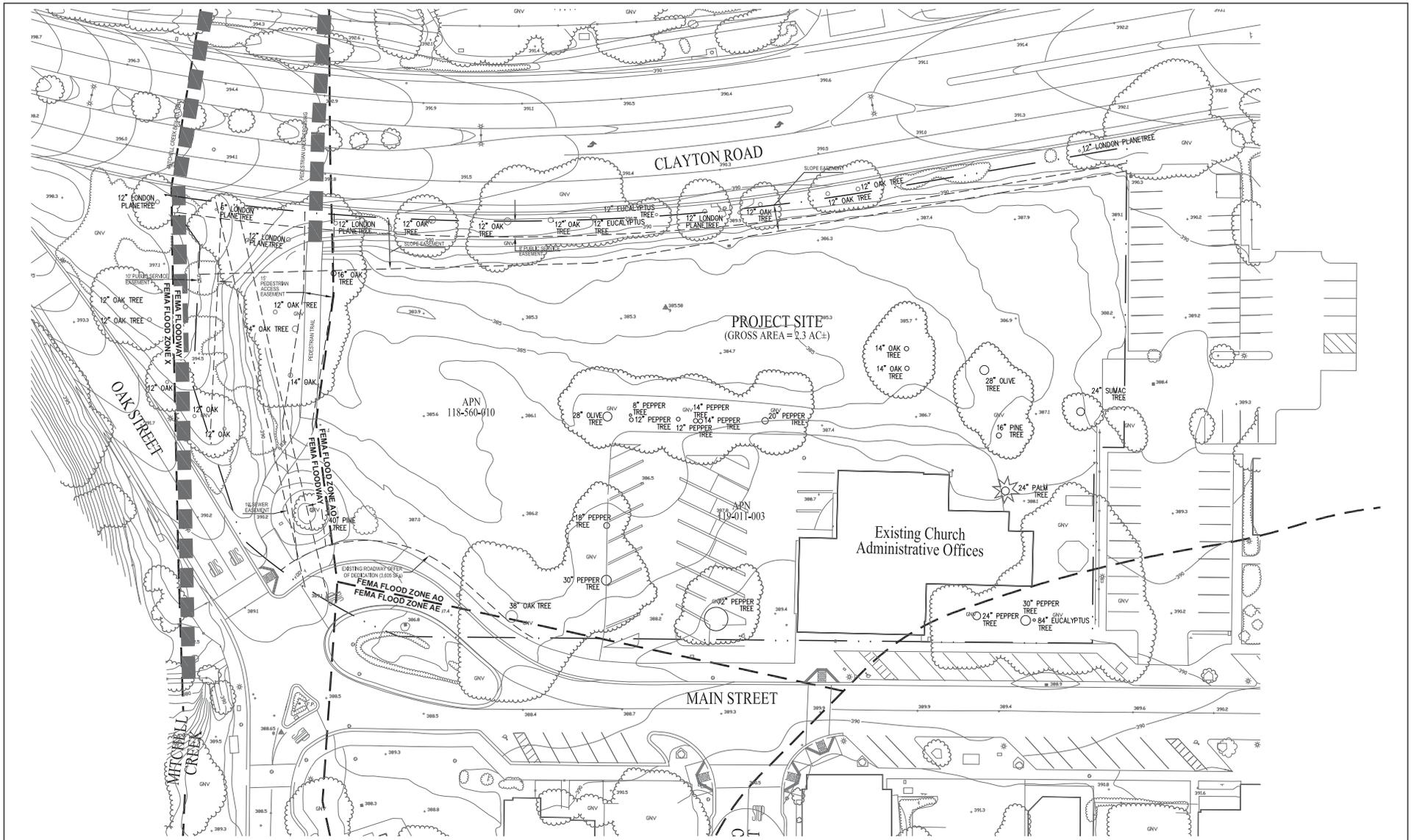
 PROJECT SITE

*Clayton Community Church Project EIR
Aerial Photograph of Project Area*

SOURCES: GOOGLE EARTH, 10/02/09; LSA ASSOCIATES, INC., 2010.

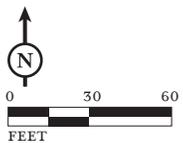
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FIGURE III-3



SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., FEB. 9, 2010.

Clayton Community Church Project EIR
Existing Conditions

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4. Land Use Designations

The following subsection provides a brief overview of land use designations within the project site. Chapter IV.A, Land Use and Planning Policy, provides additional discussion of applicable land use regulations and the consistency of the proposed project with adopted planning policies.

a. City of Clayton General Plan. The existing General Plan designation for the project site is Town Center. The land uses permitted within this designation are those outlined in the Town Center Specific Plan and include retail sales, commercial service, restaurant, bar, commercial recreation, child day care, office, upper-floor residential, and visitor accommodation uses. According to the General Plan, new uses in areas designated Town Center must be reviewed for design compatibility with existing structures, in addition to the theme and character of the Town Center, as described in the Town Center Specific Plan.

b. City of Clayton Zoning Ordinance. The project site contains two zoning designations. The portion of the site occupied by the existing building (APN 119-011-003) is zoned “Limited Commercial.” The remainder of the site (APN 118-560-010-1) is zoned “Planned Development.”

Because the project site is located within the Town Center Specific Plan, land uses permitted within the Limited Commercial zone within the project site are the retail sales, commercial services, restaurant, bar, commercial recreation, office, upper-floor residential and visitor accommodation uses permitted under the “Town Center Commercial” designation in the Town Center Specific Plan.

The Planned Development zone is intended to allow for “an integrated, comprehensively-planned area located on a single tract or contiguous tracts of land under a single or joint ownership which allows flexibility in the land use controls typically required by another zone.” The purpose of the Planned Development zone is to: implement the objectives of the General Plan; conserve outstanding natural and archaeological features; provide more open space; encourage building variety and innovative approaches to design; and promote efficiencies through shared facilities and services. Permitted uses are those listed in the General Plan for the governing land use designation or designations.

c. Town Center Specific Plan. The Town Center Specific Plan covers the historic center of Clayton and encompasses the project site. The land use designation of the site is “Town Center Commercial.” Permitted land uses include retail sales, commercial, services, and office uses, as well as limited residential and visitor accommodation uses.

B. PROJECT BACKGROUND

Clayton Community Church is a church affiliated with the Evangelical Presbyterian Church that currently conducts its administrative and related functions in the former Pioneer Inn building on the project site and holds worship services at Diablo View Middle School (300 Diablo View Lane in Clayton). Clayton Community Church was established in 1996 by Shawn Robinson (the current pastor of the church) in response to demand for a local place of worship. The church indicates it currently has over 700 members, and desires its own sanctuary and community space, including space to provide social services to the community.

On August 12, 2010, the City issued a Notice of Preparation (NOP) for the EIR, which included notice of two scoping sessions (one for agency staff and one for the general public), convened on August 26, 2010. Agencies and the public were advised of the NOP and the scoping sessions through direct mailings, publication in the Contra Costa Times, and the City's website.

C. PROJECT OBJECTIVES

The proposed project would result in the redevelopment of the project site with a church worship center and associated uses, including retail and office uses and administrative space. The stated objectives of the applicant for the proposed project are to:

- Develop new church space in Clayton to serve the local community and fulfill a public need for spiritual and social gatherings.
- More effectively provide social services to the community, including youth and seniors.
- Bring additional patrons into downtown Clayton to support existing commercial businesses in downtown Clayton, and attract economic investment.
- Extend the Main Street commercial corridor through the development of new structures containing retail space adjacent to Main Street and careful site planning.
- Enhance the walkability of downtown Clayton.
- Build a sustainable project that efficiently uses energy and water, preserves open space and important vegetation, and contributes to the vitality of Clayton.

D. PROPOSED PROJECT

This section provides a description of the proposed project based on information provided to LSA Associates, Inc. by Clayton Community Church in the summer of 2010. The proposed project is intended to develop a new church and associated facilities on the project site in order to serve the Clayton Community Church congregation and the overall community. The project is designed to include a mix of uses, including retail and office uses, in order to contribute to the vitality of downtown Clayton and capitalize on the location of the project site as a key western entrance to downtown. The project is intended to accommodate activities beyond basic worship services, including summer movie nights, concerts, a soap box derby, and other special events (such as funerals, banquets, weddings, parties, and community theater), in addition to regular weekday meetings, such as bible studies.

As part of the project, the existing structure (formerly the Pioneer Inn) would be demolished and four buildings would be constructed, comprising approximately 42,000 square feet of interior space. In addition, 54 parking spaces would be provided on the project site in an on-site parking lot. Because the proposal for on-site parking falls well short of City code requirements, the project sponsor proposes to utilize existing off-site parking – via shared use agreements to use parking on other private properties and existing on-street public parking and public parking lots – to make up for the shortfall of on-site spaces. A lower allocation of on-site parking would require amendments to the City of Clayton Zoning Ordinance and the Town Center Specific Plan.

The planner and architect for the project is William Hezmalhalch Architects (WHA), based out of Santa Ana and San Ramon, California. The project landscape architect is Gates + Associates, also based out of San Ramon. The individual components of the project, including proposed structures and the parking plan, are described in more detail below.

1. Proposed Buildings

As discussed above, the project includes the development of four buildings. Structures containing retail and office uses would be located on the south side of the site, adjacent to Main Street (situated in a similar fashion to many existing buildings containing commercial uses along Main Street), so as to more effectively extend the Main Street retail district. The main building containing the Church sanctuary would be located in the northwest portion of the site; a teen center would be located in the northeast portion of the site. The buildings proposed for the project site are described in more detail below. Please refer to Figure III-4 for an illustrative site plan. Table III-1 summarizes the proposed uses.

- Building 1, which would be located in the northwestern portion of the site, would be a two-story 22,244-square-foot sanctuary building containing up to 500 seats. The ground floor of the structure would comprise 14,050 square feet and would include the church stage and auditorium, classrooms and community space, and restrooms and other accessory uses. The second floor would comprise approximately 8,194 square feet and would include classrooms, flexible space, restrooms and accessory uses, and the auditorium balcony (a portion of the second floor would be open to the auditorium below).
- Building 2, which would be located in the southwestern portion of the site, southeast of Building 1, would contain a total of 8,516 square feet of interior space and would be two stories in height. The building would be the first of two proposed buildings to contain ground-floor retail space adjacent to Main Street. The ground floor of the structure would comprise a total of 4,829 square feet, including 2,261 square feet of retail space adjacent to Main Street and 2,568 square feet of space that would be used for children's ministry activities. For the purpose of this analysis, it is assumed that the retail space in Building 2 would be rented by Clayton Community Church to non-church tenants. The second floor of the structure would contain 3,687 square feet of administration uses.
- Building 3, which would be located on the site of the Pioneer Inn (in the southeastern portion of the site), would be a two-story building containing a total of 10,204 square feet of interior space, including 5,696 square feet of retail space and 4,508 square feet of office space. The retail space would be contained entirely on the ground floor; the office space would be contained entirely on the second floor. For the purpose of this analysis, it is assumed that the retail and office space in Building 3 would be rented by Clayton Community Church to non-church tenants.
- Building 4, which would be located in the northeastern corner of the project site, would be a one-story building containing a total of 1,200 square feet of space and would function as the Church's teen center.

Table III-1: Use Summary

Use	Square Feet
Sanctuary/Educational/Community Space	26,012
Retail	7,957
Office/Administration	8,195
TOTAL	42,164

Source: WHA, Inc., 2010.

Figure III-5a and Figure III-5b show representative elevations and sections of Building 1 (Church/Community Building), respectively. Figure III-5c, Figure III-5d, and Figure III-5e show representative elevations of Building 2 (Church Administration/Children’s Ministry/Retail Building), Building 3 (Office/Retail Building), and Building 4 (Teen Center), respectively. Figure III-6 shows representative renderings of the proposed structures. No tenants have yet been identified for the proposed retail/office space.

2. Circulation and Parking

Figure III-7 shows the proposed circulation plan, which includes linkages to Main Street, in addition to a sidewalk along Main Street and the pedestrian path along the western boundary of the site. Primary vehicle access to the site would occur via a driveway extending into the eastern edge of the site (and the proposed parking lot) from a City-owned parking lot to the east of the site. This driveway would avoid the need for a new driveway and curb cut on Main Street. Drivers would be able to circle through the proposed parking lot, dropping off passengers at a drop-off/pick-up zone adjacent to Building 1, before parking in the lot or proceeding to the shared entry/exit. An extensive pedestrian circulation system is proposed as part of the project to link the proposed structures with each other, the existing pedestrian trail in the western portion of the site, and to the rest of downtown Clayton. Pedestrian access within the site would occur via a series of interlinking pathways and courtyards. The existing pathway along the western boundary of the site, which connects City facilities with downtown Clayton, would be preserved and connected to the buildings on the project site with east/west pathways.

The project includes an on-site parking lot in the northeastern portion of the site that would contain 54 parking spaces. The project would also include 26 bike parking spaces at a to-be-determined location. As described above, the parking lot would be accessed via a driveway extending from the parking lot to the east of the project site. The parking lot would be made available to the public through a public parking easement. In addition, 15 on-street parking spaces would be provided along the Main Street frontage of the project site, within the public right-of-way adjacent to the project site (representing an addition of three spaces beyond the existing number of spaces). Based on the City of Clayton Municipal Code, the project would be required to provide a total of 222 parking spaces, including 167 spaces for the church building/sanctuary and 54 parking spaces for the proposed administrative, educational, and accessory uses.

Additional parking needed to serve the demand of Church members, beyond that provided on-site, is proposed to be provided via the use of existing on-street public parking and public parking lots, and through shared parking agreements with owners of private parking lots in the vicinity of the site. Such agreements would allow the Church to use off-site parking owned by another entity on certain days and times. A parking study conducted by TJKM Transportation Consultants for the project sponsor identified 351 public parking spaces within 600 feet (a 2- to 3-minute walk) of the project site, many of which are vacant during Sundays and other periods of expected peak activity at the proposed Church.⁶ Clayton Community Church secured a shared parking agreement with Kindercare Learning Center, located to the east of the project site, which would be subject to City approval. This agreement would allow the Church to use Kindercare Learning Center's 34 parking spaces on Friday night, Saturday, and Sunday. In exchange for use of the parking, Clayton Community Church is required to pay rent of \$200 per month and be responsible for a pro rata share of parking lot maintenance costs.⁷ Refer to Section IV.B, Transportation, Circulation and Parking, for an evaluation of the adequacy of the proposed parking allocation.

The parking supply proposed by the project sponsor would be substantially less than that required by the Municipal Code, but, according to the project sponsor, could achieve environmental benefits (e.g., reduce urban heating associated with large expanses of asphalt and reduce stormwater runoff), use land more efficiently, and better utilize existing parking in downtown Clayton, as many of the church-related activities would occur when there is reduced demand for parking in the vicinity. However, proposed church activities would occur throughout the week (and not only on Sundays), and could generate competition for existing on-street parking spaces and spaces in parking lots, which are used by downtown visitors and businesses. In addition, there are a number of undeveloped or underdeveloped parcels in the Town Center Specific Plan area. As these properties are developed, it is expected that there would be competition for available parking spaces. Direct and secondary impacts associated with the proposed on-site parking deficit are evaluated in this EIR.

3. Open Space and Landscaping

Figure III-8 shows the conceptual landscape plan for the site. The project includes open space between proposed buildings and on the periphery of the site. After project implementation, approximately 56,242 square feet (approximately 55 percent) of the site would consist of open space, including open space in the form of paseos, courtyards, walkways, and other public gathering places, and landscaped areas.

Key landscape elements of the project include a plant buffer along the northern boundary of the site adjacent to Clayton Road. A bioswale⁸ would be located at the foot of the buffer, which would slope down from Clayton Road. A planting buffer would also be included along the western boundary of the project site, in the vicinity of the pathway extending from the City civic facilities north of Clayton Road and downtown Clayton. A bioswale would be built immediately to the east of the planting buffer.

⁶ TJKM Transportation Consultants, 2009. *Parking Study for the Clayton Community Church*. December 7.

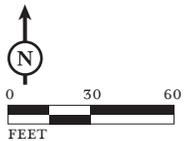
⁷ Clayton Community Church and Kindercare Learning Centers, Inc., 2009. Parking Lot Sublease Agreement. December 9.

⁸ A bioswale is a landscape element designed to remove silt and pollution from stormwater that consists of a ditch with gently-sloped sides that is filled with materials or vegetation.



FIGURE III-4

LSA



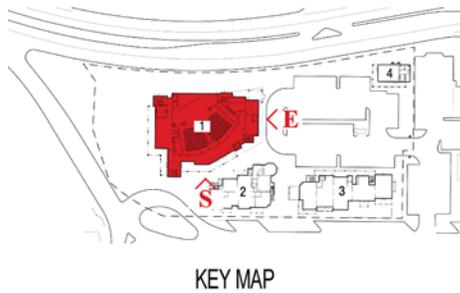
SOURCE: GATES + ASSOCIATES, FEB. 9, 2010.

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SOUTH ELEVATION



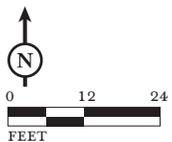
KEY MAP



EAST ELEVATION

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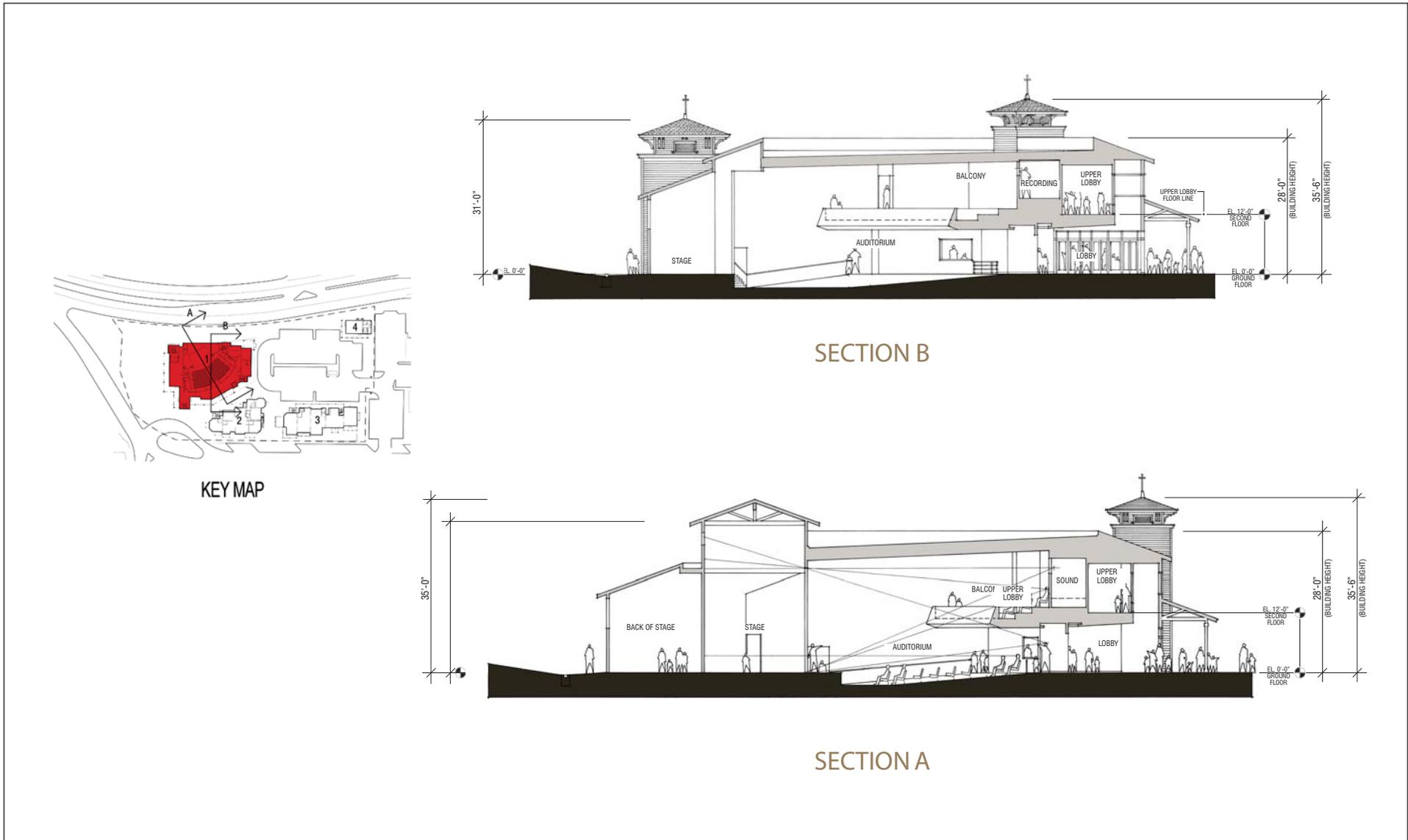
FIGURE III-5a



SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., FEB. 9, 2010.

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Clayton Community Church Project EIR
 Building 1 (Church/Community Building)
 Representative Elevations



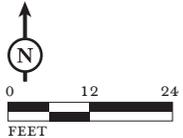
SECTION B

SECTION A

KEY MAP

FIGURE III-5b

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Clayton Community Church Project EIR
 Building 1 (Church/Community Building)
 Representative Sections



SOUTH ELEVATION



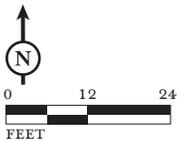
KEY MAP



EAST ELEVATION

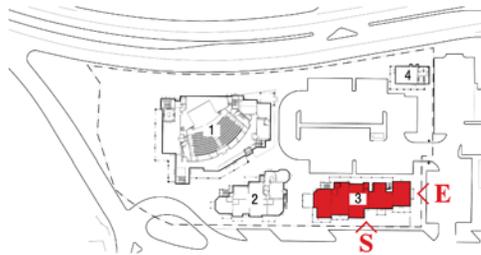
FIGURE III-5c

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SOUTH ELEVATION

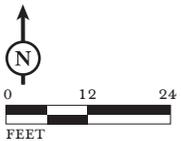


KEY MAP



EAST ELEVATION

LSA



SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., FEB. 9, 2010.

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FIGURE III-5d

Clayton Community Church Project EIR
 Building 3 (Office/Retail)
 Representative Elevations

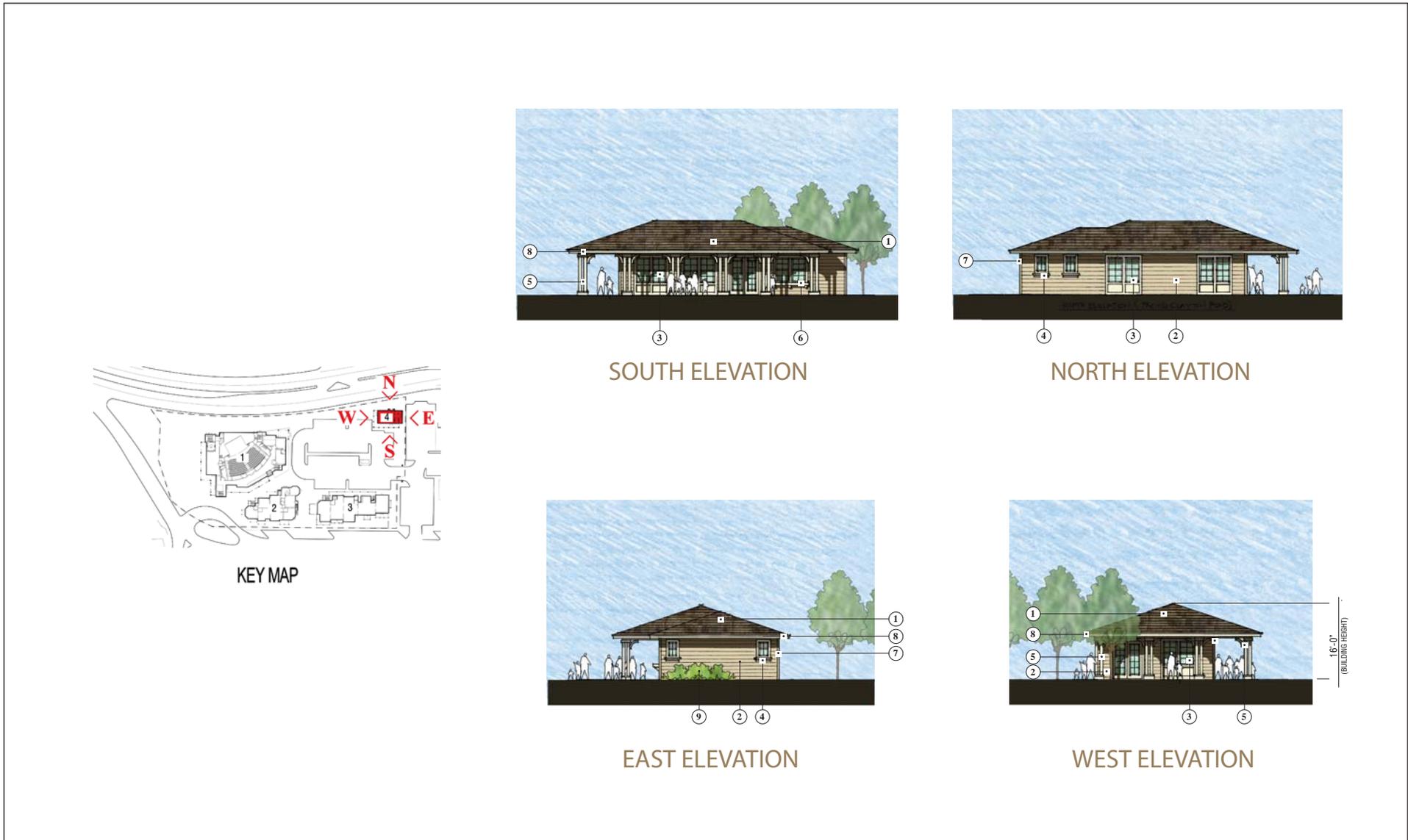
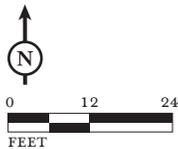


FIGURE III-5e

LSA



SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., FEB. 9, 2010.

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Clayton Community Church Project EIR
Building 4 (Teen Center)
Representative Elevations



A



B



C



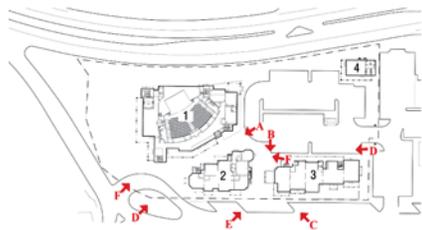
D



E



E



KEY MAP

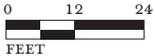


C



F

LSA



SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., FEB. 9, 2010.

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FIGURE III-6

Clayton Community Church Project EIR
Representative Renderings

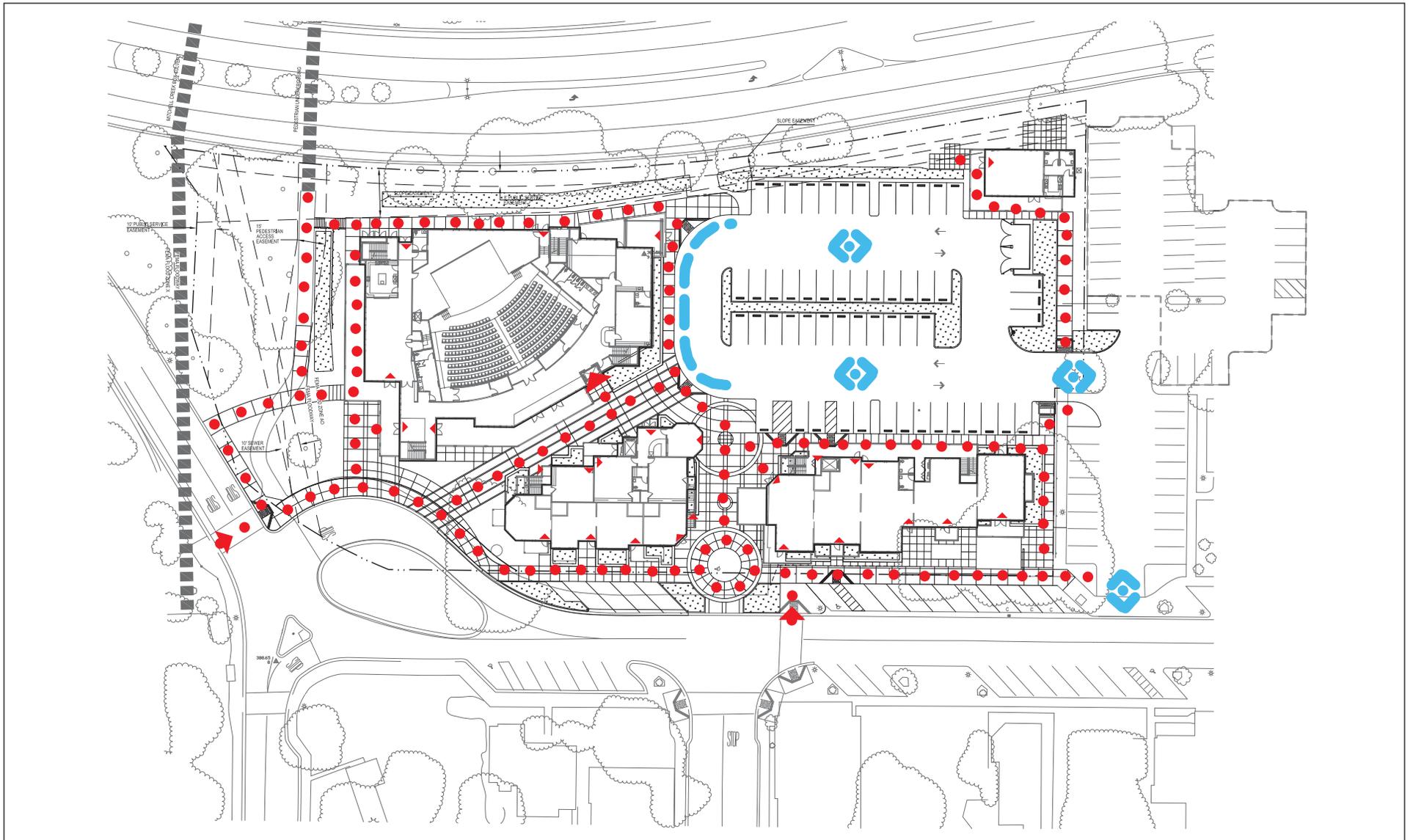
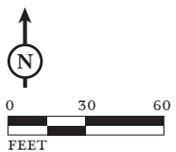


FIGURE III-7

LSA



- PEDESTRIAN ACCESS TO SITE
- PEDESTRIAN PATH
- MAJOR BUILDING ENTRY
- MINOR BUILDING ENTRY
- VEHICLE ENTRY/ROUTE
- VEHICLE PASSENGER DROP OFF

Clayton Community Church Project EIR
Circulation Plan

SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., FEB. 9, 2010.

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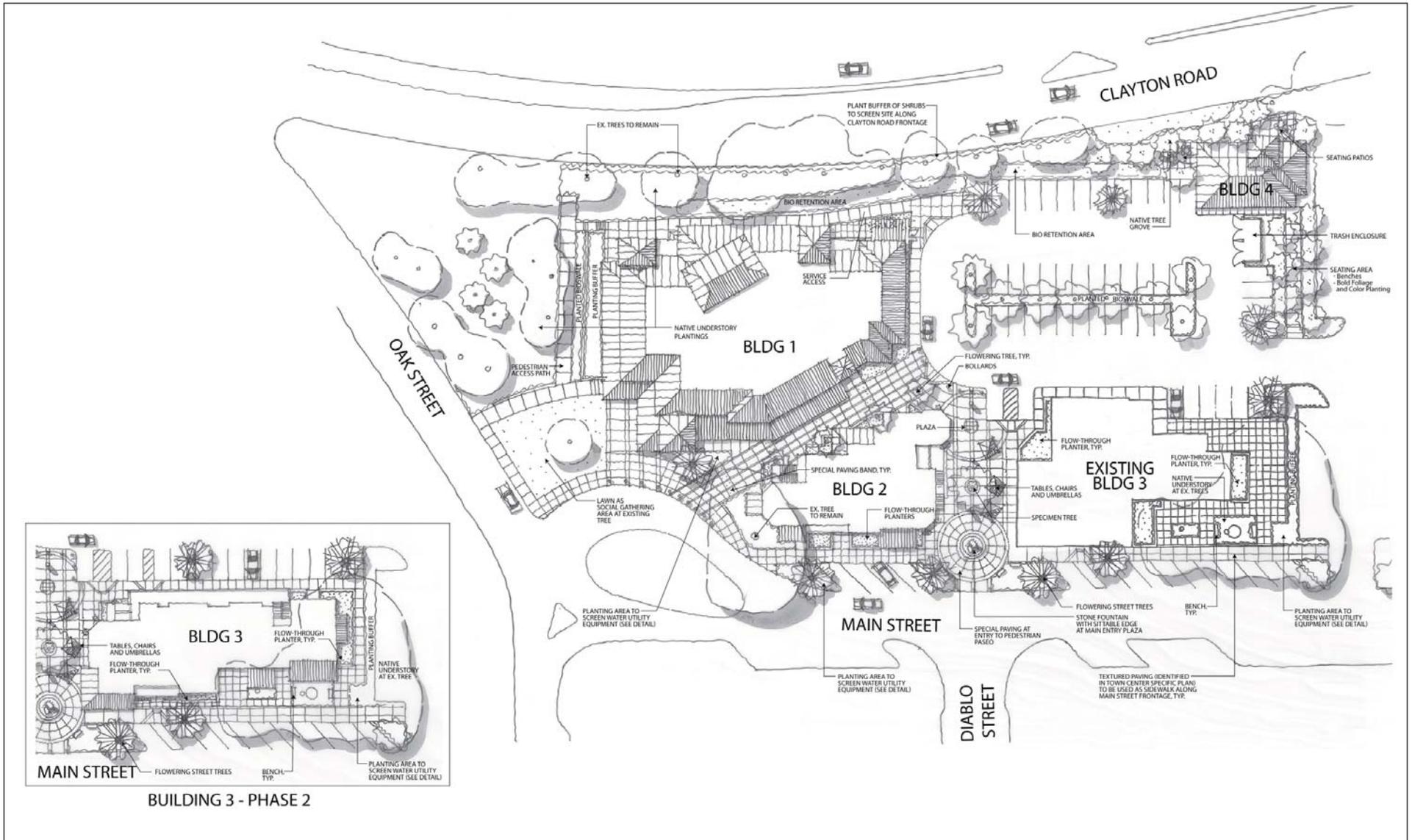
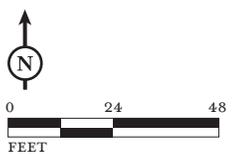


FIGURE III-8

LSA



SOURCE: GATES + ASSOCIATES, FEB. 9, 2010.

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Clayton Community Church Project EIR
Conceptual Landscape Plan

Patios and seating areas would be interspersed throughout the courtyards and open areas of the site, in between proposed structures. These open areas would be immediately accessible from the sidewalk along Main Street. Bollards would be installed, where necessary, to prevent vehicle through-access. In addition, a lawn, to be used as a place for outdoor community gatherings, would be planted in the southwestern corner of the site, around an existing blue spruce tree. The designated open space in the western portion of the site overlaps with the area designated as a Regulatory Floodway designated by FEMA and is intended to provide for flood control.

Of the 48 mature trees on the site, approximately 31 trees (65 percent of the total) would be preserved. Of the 17 trees proposed for removal, 15 are in “poor” condition, according to the Arborist Report prepared for the project. The other two trees are in “fair” condition. Of the 15 oak trees present on the project site, three would be removed. Refer to Figure III-9 for the tree removal plan. The proposed planting palette includes many California natives and drought-resistant plants, including blue-eyed grass (*Sisyrinchium bellum*), ceanothus (*Ceanothus sp.*), California wild grape (*Vitis californica*), Pacific wax myrtle (*Myrica californica*), and California buckeye (*Aesculus californica*).

4. Drainage

Refer to Figure III-10 for the preliminary grading and drainage plan. As discussed above, approximately 98 percent of the project site is located within Flood Zone AO and the far western portion of the site is located within a Regulatory Floodway, as defined by FEMA. Therefore, the site is likely to be exposed to flooding in the foreseeable future. To reduce flood risks, all built areas (including structures) would be elevated above the FEMA Flood Zone base flood elevation. The area along the far western and southwestern edges of the site would be retained as open space to allow flood waters to infiltrate into the groundwater system. In addition, an underground detention system would be installed under the proposed on-site parking lot.

Stormwater generated on the project site would be treated through a combination of landscape features and storm drain infrastructure. As discussed above, bioswales would be developed along the northern and western boundaries of the site to retain stormwater. A bioswale would also be developed in the middle of the parking lot. Planters would also be distributed among the proposed plazas and pathways to capture stormwater generated by paved surfaces on the site.

New storm drain infrastructure that would be installed on the site would include a new 12-inch storm drain pipe extending through the central portion of the site that would connect to an existing 18-inch storm drain pipe extending north of the site and into the proposed bioswale along the northern boundary of the site. New 12-inch storm drains would also be installed along the western and southern boundaries of the site that would connect to proposed bioswales and an existing 18-inch storm drain, respectively.

5. Architecture and Design

The architecture and design of the project is intended to reference historic buildings and the development pattern in downtown Clayton, which are characterized by two-story wood-frame buildings with horizontal siding, front porches, and the use of rectangular facades. In general buildings in downtown Clayton are located near front property lines and parking lots are located on the sides or behind buildings. Retail space is generally located on the ground floor, facing Main and Center streets.

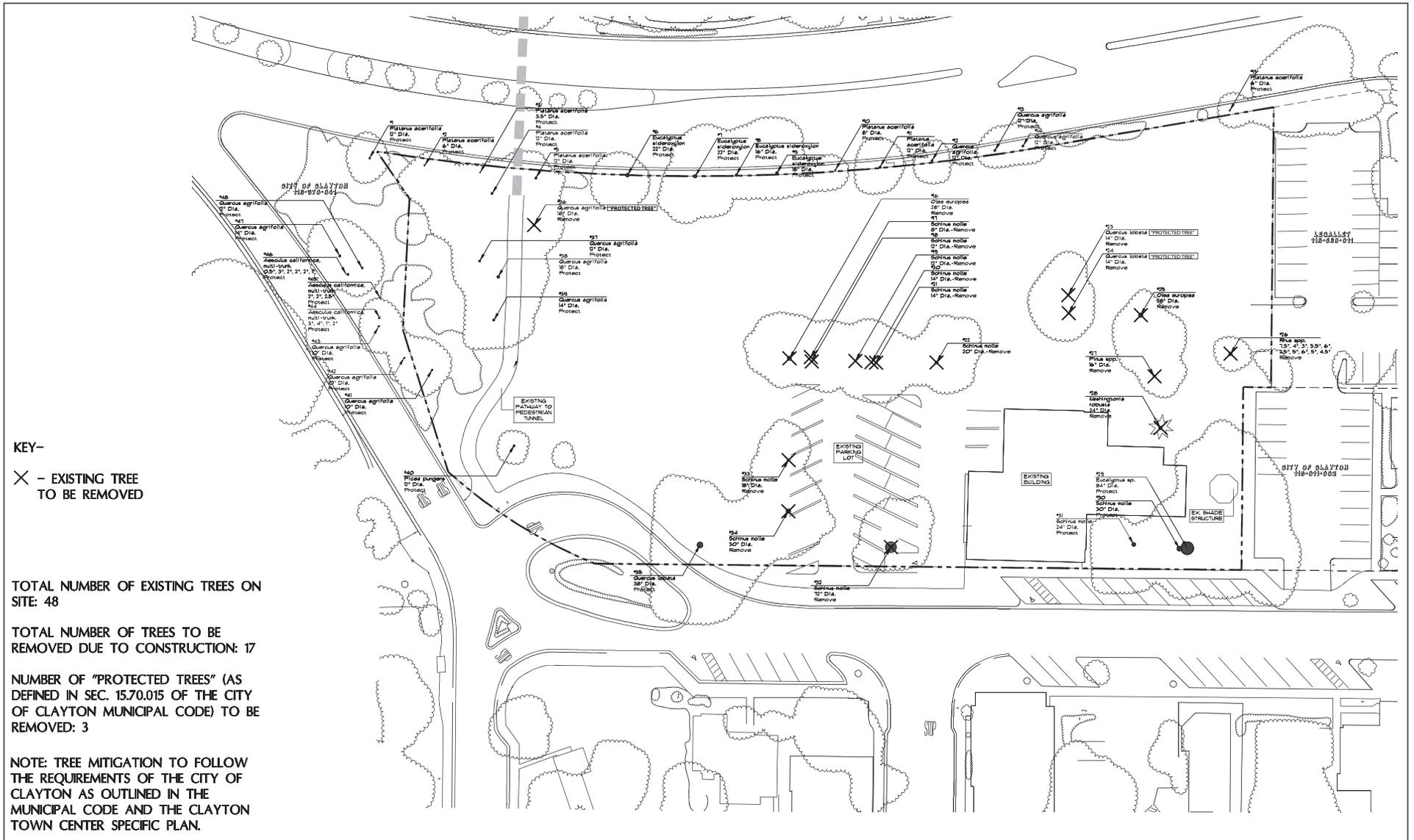


FIGURE III-9

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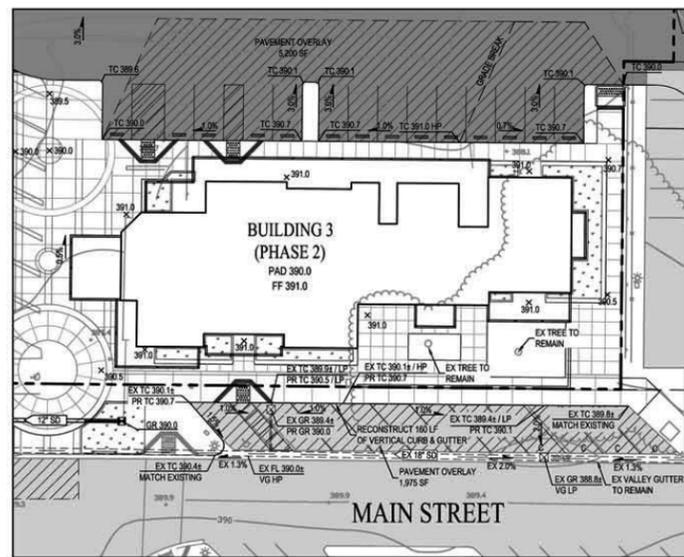
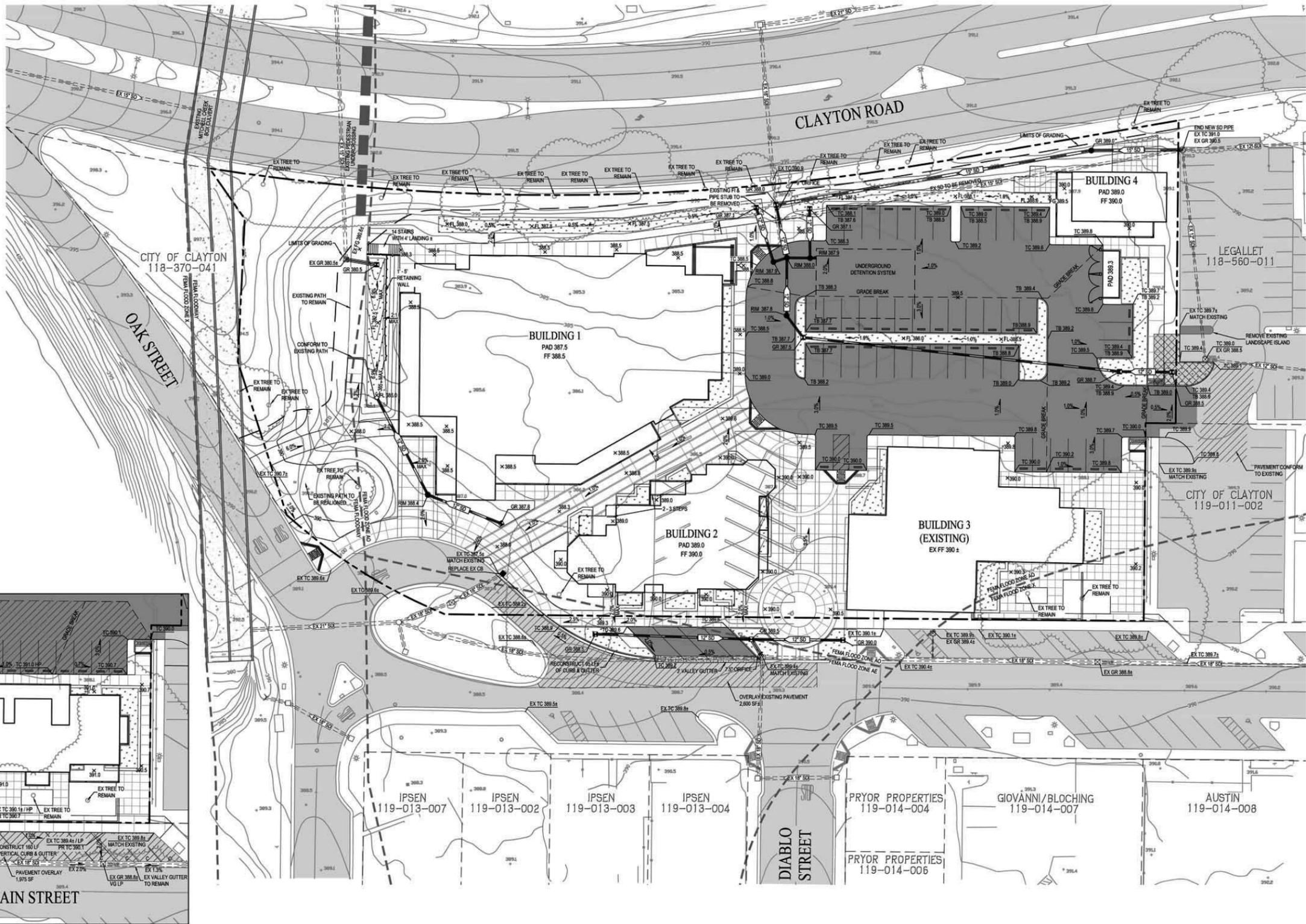


SOURCE: GATES + ASSOCIATES, FEB. 9, 2010.

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LEGEND

- SITE IMPROVEMENT LIMITS
- - - EXISTING PARCEL LINE
- EXISTING CURB
- PROPOSED VERTICAL CURB
- PROPOSED FLUSH CURB
- PROPOSED BUILDING
- PROPOSED AC PAVEMENT
- ▨ EXISTING AC PAVEMENT TO REMAIN
- ▩ EXISTING AC PAVEMENT TO REMOVE
- ▧ PROPOSED AC PAVEMENT OVERLAY
- ▦ PROPOSED SIDEWALK / WALKWAY
- PROPOSED WATER QUALITY FACILITY
- LIMIT OF GRADING
- 24" SD EXISTING STORM DRAIN FACILITIES
- 18" SD PROPOSED STORM DRAIN LINE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN (COUNTY STD CD20 TYPE A)
- EXISTING STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN MANHOLE (COUNTY STD CD30 TYPE I)
- ⊠ EXISTING FIELD INLET
- ⊠ PROPOSED FIELD INLET (PER DETAIL CD22 TYPE "C")
- P 62.0 PAD ELEVATION
- FF 63.0 FINISHED FLOOR ELEVATION
- LP LOW POINT
- HP HIGH POINT
- + TC 61.2 VERTICAL CURB ELEVATION
- + TB 61.2 TOP OF CONCRETE BAND
- + FG 61.2 FINISHED GRADE ELEVATION
- + 62.0 SPOT ELEVATION
- WATER QUALITY SWALE
- 2.0% PAVEMENT SLOPE



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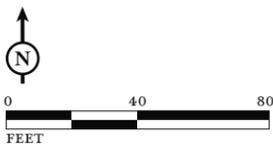


FIGURE III-10

The proposed project would emulate this general pattern of design. The buildings at the southern end of the project site would contain ground-floor retail space oriented towards Main Street. These buildings would contain horizontal siding, parapets, and sidewalk awnings. The buildings within the site would be spaced to create pedestrian connections between Main Street and the interior of the site. All buildings would be a maximum of two stories. The Church/Community building would be a maximum of 40 feet in height. The two buildings containing ground floor retail space in the southern portion of the site would be a maximum of 28 feet in height. The teen center would be a maximum of 16 feet in height. The design includes the preservation of approximately 65 percent of the mature trees on the site, including 12 of the 15 existing oak trees. As part of the project, the project sponsor would also create three additional parking spaces along the Main Street frontage of the project site.

6. Church Operations

As part of the project, Church worship services would move from Diablo View Middle School (300 Diablo View Lane in Clayton) to the project site, and all Church operations would be conducted from the project site. Main worship services would be held between 8:45 a.m. and 1:00 p.m. on Sundays, and would be attended by approximately 450 persons. Table III-2 lists a range of activities, including special events, that the Church would seek to hold on the project site as part of the project. As shown in Table III-2, regular operations would include activities on every day of the week. Events would range from meetings of the 10- to 15-person Worship Team on Tuesday evenings or afternoons to summer movie nights on Friday evenings, which are attended by approximately 500 persons. Special events would range from Super Bowl parties in February attended by 30 persons to soap box derbies at the end of summer that are attended by approximately 1,000 persons. In addition, weddings and funerals would be held throughout the year, as needed.

Activities associated with standard Church operations, such as bible study programs, worship services, and weddings and funerals would be permitted under the current project application. Larger community events (including those held outdoors), such as the summer movie night, soap box derby, concerts, Christmas Eve gathering, and other special events (such as banquets, parties, and community theater) would require approval of separate City of Clayton Temporary Use Permits.

This EIR evaluates the potential environmental effects of the events specified in Table III-2 (and associated attendance numbers). If the Church seeks to hold additional events not listed in Table III-2, or exceeds the attendance estimates listed in Table III-2 for specific events, supplemental environmental review may be required. This environmental review would evaluate, for instance, whether adequate parking would be provided for events not listed in Table III-2, and whether there is the potential for such events to result in environmental impacts beyond those identified in this EIR. Certain events listed in Table III-2 may require a Use Permit.

In addition to these activities, the Church would also provide social services from the project site. These services include after-school and evening activities for teens, and to-be-developed programs to address issues of aging and health for seniors. The number of Church employees (14) is not expected to change with implementation of the proposed project (as existing staff could handle added responsibilities associated with the proposed facilities and activities).

Table III-2: Church Operations

Day of Week	Time of Day	Usage Description	Approximate Attendance
Regular Operations			
Monday	AM	Bible Study	10 to 40
	AM	Office Staff	14
Tuesday	AM	Office Staff	14
	PM	Rehearsal	15
	PM	Leadership Council	15
	PM	Prayer Gathering	50
	PM	Worship Team	10 to 15
Wednesday	AM	Office Staff	14
	9:00 a.m. to 12:00 p.m.	Women's Bible Study	50 plus 30 children
	AM and PM	Summer Program	100 children
Thursday	Evening		30 to 40
	6:30 a.m.	Men's Bible Study	35 to 50
	PM	High School	35 to 50
	AM	Office Staff	14
Friday	AM	Office Staff	14
	8:30 p.m.	Summer Movie Night	500
Saturday	8:00 a.m. to 10:00 a.m.	Men's Breakfast	50
	6:00 p.m. to 8:00 p.m.	Sat Night Services	200
Sunday	8:45 a.m. to 1:00 p.m.	Main Worship Services	300 Adults 60 Children 30 Youth (Junior High School) 40 High School 15-20 College
	Occasional	Gathering	10 to 50
	PM	AA Group	20
Special Events			
August – September	7:00 a.m. until done	Soap Box Derby	1,000
December	Christmas Eve	Gathering	600 to 700
	AM and PM	Youth Celebration	100
February	AM and PM	Super Bowl Party	30
	AM and PM	Daddy/Daughter Dance	150
March – April	9:00 a.m. - All Day	Easter Gathering	1,000
	11:00 a.m. - All Day	Easter Gathering	1,000
April	PM	Church Banquet	900 to 1,000
May	PM	Spring Formal	100
Future Events			
First Wed of Month	3:00 p.m. to 5:00 p.m.	Kids Worship	20
Various	AM and PM	Concerts	300 to 400
Various	AM and PM	Community Theater 1. Drama Mama 2. High School	Not Determined (Use Permit would be required)
Various	AM and PM	Weddings and Funerals	Not Determined (Use Permit would be required)

Source: Clayton Community Church, 2010.

7. Utilities

Water service to the site would be provided by the Contra Costa Water District. The project would include new water lines that would connect the site to the existing water main under Main Street. Sewage treatment would be provided by the Central Contra Costa Sanitary District. The project would include new sewage lines that would connect to the existing sewage main under Main Street.

Sewage generated on the project site would be treated at the Central Contra Costa Sanitary District's treatment plant. Energy (electricity and gas) would be provided to the site by Pacific Gas and Electric Company. On-site utility boxes would generally be screened by landscaping.

8. Construction

The project would be phased, with Buildings 1 and 2 proposed for development as part of Phase 1 and Building 3 developed as part of Phase 2. Building 4 would be constructed in one of the first two phases or in a separate third phase. As part of project construction, 3,500 cubic yards of fill would be brought into the site in order to achieve required design grades.

E. DISCRETIONARY CITY ACTIONS

The project would require several entitlements from the City of Clayton, including a General Plan Amendment; Zoning Ordinance Amendment; Specific Plan Amendment; Development Plan and Use Permit Approval; and Tentative Parcel Map Approval, as described below and summarized in Table III-3.

1. General Plan Amendment

The text of the City of Clayton General Plan would be amended to allow "religious assembly" uses (which would allow for worship services as well as other church-related activities listed in Table III-2) to be developed in areas designated Town Center. The General Plan amendment would consist of a text revision resembling the following (underline text indicates added text; ~~strikethrough~~ text indicates deleted text):

Uses

The uses allowed within this designation are the retail sales, commercial service, restaurant, bar, commercial recreation, child day care, office, upper-floor residential, visitor-accommodation, and religious assembly and accessory uses such as classrooms, child care, and teen center uses listed in the "Town Center Commercial" land use designation of the *Town Center Specific Plan*. Population in residential uses is estimated at 1 person per 300 square feet.

2. Zoning Ordinance Amendment

The City of Clayton Zoning Ordinance would be amended to: 1) establish a consistent zoning designation for the site that would allow for the development of religious assembly uses; and 2) establish lower on-site parking requirements. The amendments would consist of the following:

- *Map Amendment.* The project site currently contains two zoning designations: Limited Commercial and Planned Development. As part of the project, the parcel zoned Limited Commercial (APN 119-011-003, the site of the former Pioneer Inn building) would be rezoned to Planned Development so that the zone of the parcels comprising the project site is consistent. Because permitted uses in areas zoned Planned Development are based on the uses permitted in the overlying land use designation, the General Plan amendment described above would effectively permit religious assembly uses in the project site as part of the rezoning of APN 119-011-003 to Planned Development.

- *Text Amendments: Parking Schedules.* The text of Section 17.37.030 of the Municipal Code (Zoning Ordinance) would be amended to allow for reduced parking requirements on the project site. These amendments would apply to Schedule 17.37.030C (Off Street Parking Spaces Required with Public Parking Easement) and Schedule 17.37.030D (Reduction in Required Parking and Loading Spaces During the Waiver Period), as shown below. The amendments to Section 17.37.030 of the Municipal Code would consist of the following text revisions, all of which would be additive to the existing text (new text is underlined and highlighted).

SCHEDULE 17.37.030C OFF-STREET PARKING SPACES REQUIRED WITH PUBLIC PARKING EASEMENT	
Use Classification	Required Off-Street Parking Spaces
Retail Sales – 1st and/or 2nd Floor	1 per 400 sq. ft.
Restaurant and/or Bar – 1st and/or 2nd Floor On-Site Eating and/or Drinking Entertainment or Dancing	Greater of 1 per 125 sq. ft. or 1 per 5 seats. 1 per 75 sq. ft of public assembly area.
Office – 2nd Floor	1 per 350 sq. ft.
Commercial Services– 2nd Floor <u>and/or Rear, 1st Floor</u>	1 per 350 sq. ft.
<u>Religious Assembly</u>	<u>1 per 3 fixed seats</u>

SCHEDULE 17.37.030D REDUCTION OF REQUIRED PARKING AND LOADING SPACES DURING WAIVER PERIOD		
Parcel Area* ⁽¹⁾	Use Classification	Reduction
≤ 10,000 sq ft	Retail Sales / Restaurant – 1st and/or 2nd Floor Office or Personal Services – 2nd Floor	100%
		100%
> 10,000 sq ft	Retail Sales / Restaurant – 1st and/or 2nd Floor	75%
	Office or Personal Services – 2nd Floor	25%
	<u>Religious Assembly⁽²⁾</u>	<u>17%</u>

*⁽¹⁾ Parcel Area is that shown on the Assessor’s Maps of the Contra Costa County Assessor’s Office as of January 1, 2007 (termed “Original Parcels”). Development projects located on parcels created by any subsequent division of the Original Parcels must comply with the requirements applicable to the parcel areas of the Original Parcels.

(2) Project must demonstrate availability of other parking within the Town Center during peak operating times.

- *Text Amendment: Use Permits.* Section 17.60.030 would be amended to remove the asterisk from after “3. Churches, synagogues, temples, and places of worship,” to permit the development of such uses under the Town Center Commercial land use designation of the Town Center Specific Plan. The revision is shown below.

17.60.030 Use Permits Required.

A. General Uses. The establishment of the following uses or uses of a similar nature requires a Use Permit. Any change to an existing permitted use which is determined to be significant by the Community Development Director requires a Use Permit. Uses include but are not limited to the following:

1. Schools (public or private).*
2. Congregate care and convalescent care facilities.*

3. Churches, synagogues, temples, and places of worship.*

Applicable Districts: All Districts, unless noted with an asterisk (*), in which case the use is not allowed within the Town Center Commercial land use designation of the *Town Center Specific Plan*. (Ord. 414, 2008)

3. City of Clayton Town Center Specific Plan Amendment

The Town Center Specific Plan would be amended to allow the development of religious assembly uses, remove the Pioneer Inn building from the list of historic resources in the City, and establish lower on-site parking requirements. The amendments would consist of the following:

- Page 13 would be amended as follows to add religious assembly uses as a use subject to a Use Permit in areas with a Specific Plan designation of Town Center Commercial:

USES SUBJECT TO USE PERMIT

The following uses are allowed only after special review and the granting of a use permit. The primary purpose of the review is to assure an appropriate mixture and balance of uses in the Town Center – a mixture and balance that the uses listed below could jeopardize, for a variety of factors including:

- The location would interfere with the pedestrian and retail orientation of the district; or
- The use or its size, in conjunction with existing uses, would overwhelm the Town Center or interfere with the pedestrian and retail orientation of the district.

Further, some of the uses listed below might require building or storage areas that would be too large or otherwise inappropriate in the Town Center:

Bars which are not part of a full-service dining establishment
Bed and breakfast guest facilities
Commercial recreation (including billiards/pool and video arcades with more than three machines)
Establishments with dancing, live entertainment, or live audio/video entertainment
Home appliances, except small electrical appliances
Home furnishings, except lamps and lighting
Massage therapy, unless part of recognized medical office or clinic
Office, commercial service, or studio uses (listed as Permitted Uses above) in ground floor locations
Religious assembly and accessory uses such as childcare, classrooms, and teen center

- Page 14 would be amended as follows to remove the existing structure on the project site from the list of historic resources. Please note that the appropriateness of this proposed de-listing is evaluated in Section IV.F, Cultural Resources, of this EIR. The project sponsor's proposal to remove the Pioneer Inn building from the list of historic resources is based on a Phase I Cultural Resources Assessment, which concluded that the building is not eligible for listing on the National Register of Historic Places or California Register of Historical Resources, nor does it otherwise qualify as a historic resource pursuant to the California Environmental Quality Act (CEQA).⁹

⁹ Michael Brandman Associates, 2009. *Phase I Cultural Resources Assessment, Clayton Community Church Project, City of Clayton, Contra Costa County, California*. November 12.

2.4 HISTORIC RESOURCES

The Town Center contains a variety of historic buildings, sites, and features which add character and charm to the community. Some of these historic buildings have been in continual use for commercial purposes. Other buildings have been restored or converted to various commercial and civic uses. Based upon the Clayton Heritage Preservation Task Force Report, the following buildings and structures are recognized as historic resources in the Town Center.

Endeavor Hall
Keller Ranch House
De Martini Winery
Joel Clayton Dairy Cellar
Keller Lane Bridge
Clayton-Pape House
Clayton Club
~~Former Pioneer Inn~~
Former La Cocotte Restaurant

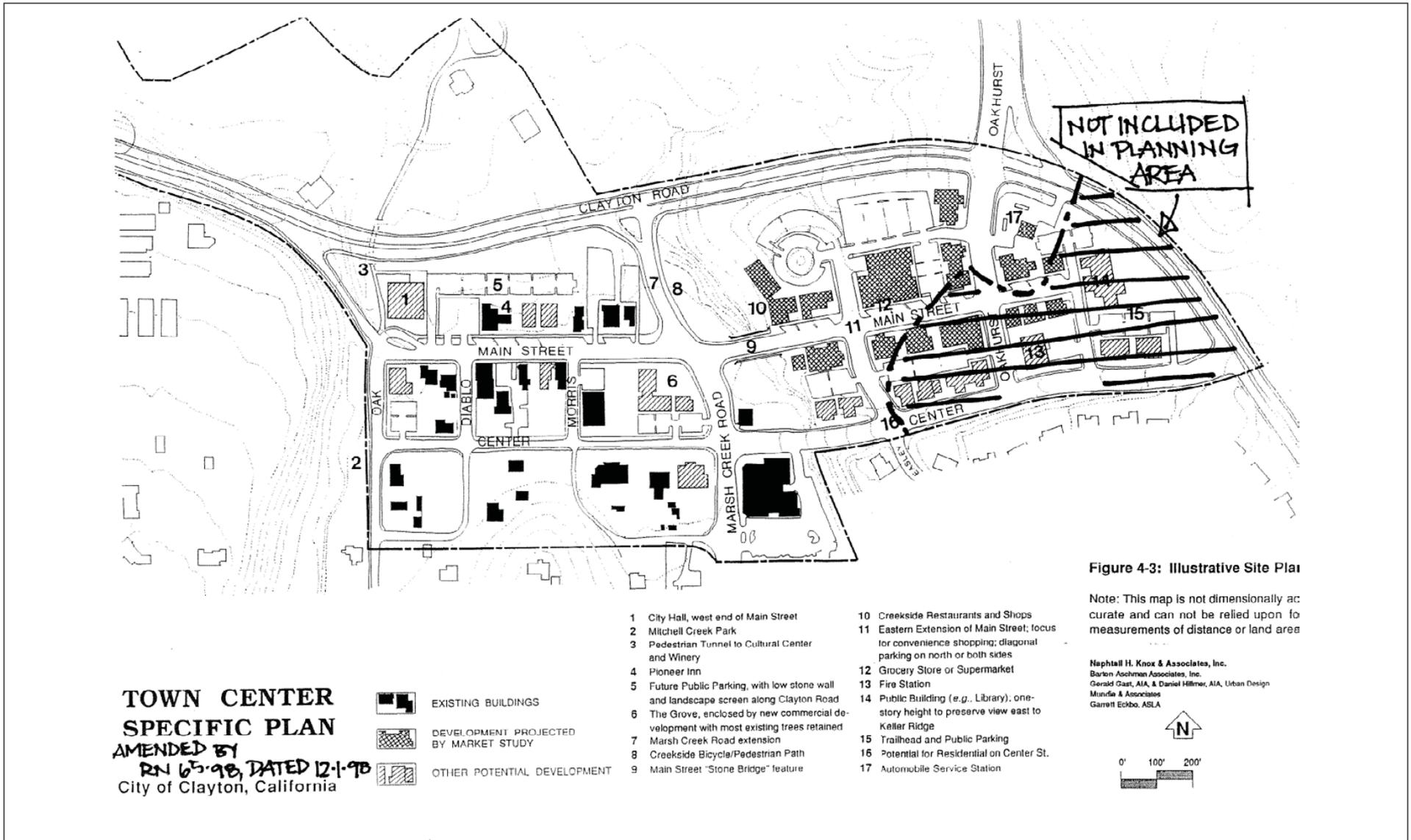
- Figure 4-3, Illustrative Site Plan, would be revised to show the proposed building configuration on the project site. Refer to Figures III-11a and III-11b for the adopted and proposed Illustrative Site Plan, respectively.
- Figure 4-15, The New City Hall Site, would be changed to Figure 4-15, Landmark Building Site, and the text under the figure would be revised to reflect the proposed project, including objectives for site planning. Refer to Figures III-12a and III-12b for the adopted and proposed Figure 4-15 and associated text.

4. Development Plan and Use Permit Approval

Because the project includes mixed use development in an area that would be zoned Planned Development, on a parcel of 15,000 square feet or greater, a Development Plan and Use Permit would be required. The Development Plan submittal would include architecture and landscape plans of the project. Refer to Figures III-4 through III-10 for key portions of this submittal. The Use Permit would require a written statement identifying the type of proposed activities, days/hours of operations, and the number of attendees. Please refer to Table III-2 for these operational data. As noted above, any deviations from these operational characteristics would require an amendment to the Use Permit and could require supplemental environmental review.

5. Tentative Parcel Map Approval

The project would result in the subdivision of the two-parcel site into four parcels ranging from 3,660 square feet to 68,990 square feet. Reciprocal easements would be established between all parcels, allowing each parcel to share access, parking, landscaping and open space, and utility rights. These easements would be recorded concurrent with the Final Parcel Map for the site.



LSA



NOT TO SCALE

SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., 2010.

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FIGURE III-11a

Clayton Community Church Project EIR
 Adopted Specific Plan
 Illustrative Site Plan

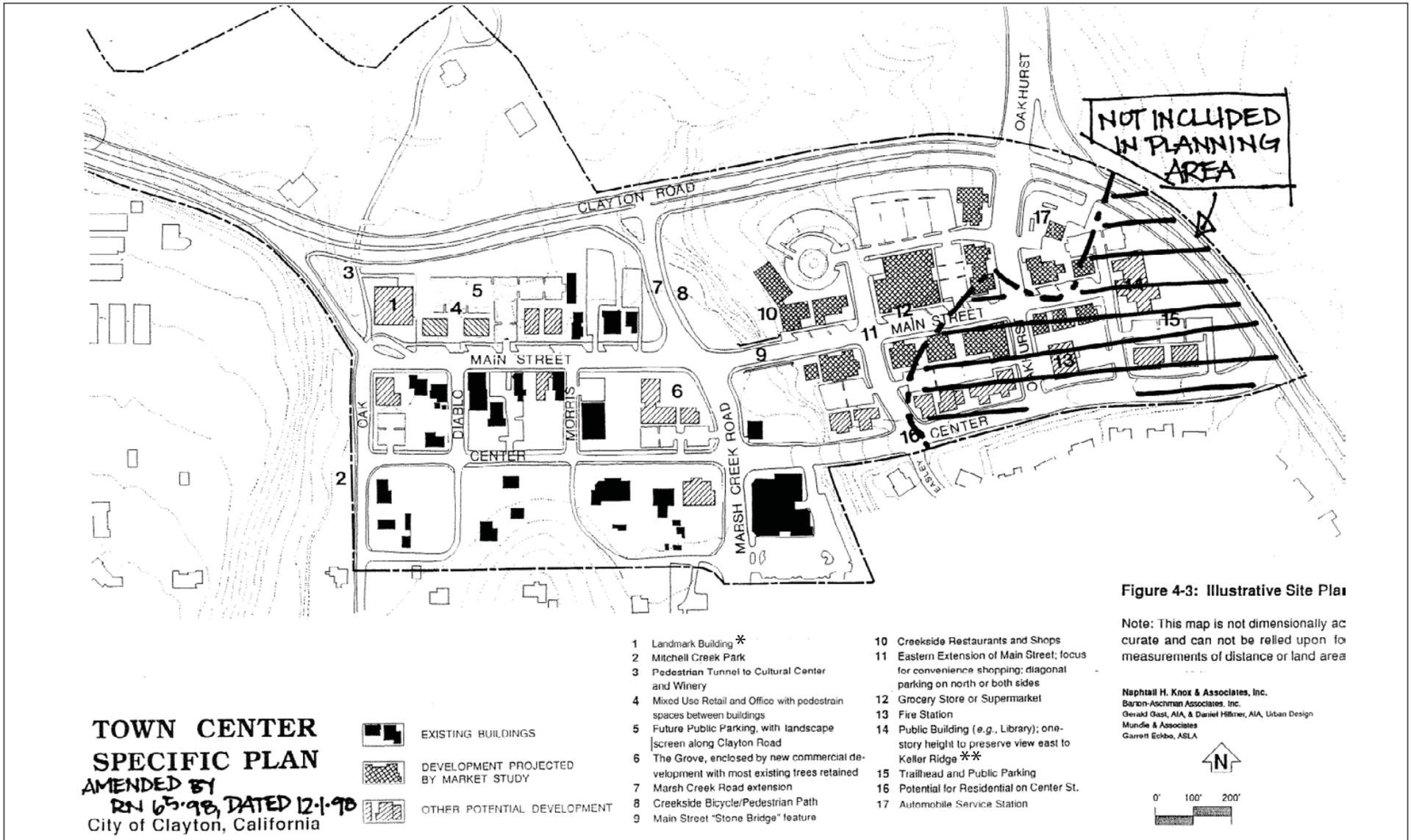


FIGURE III-11b

LSA



NOT TO SCALE

* The City intends to use the former DeMartini Winery as a permanent City Hall

** This property has been developed with a senior residential facility

Clayton Community Church Project EIR
Proposed Specific Plan
Illustrative Site Plan

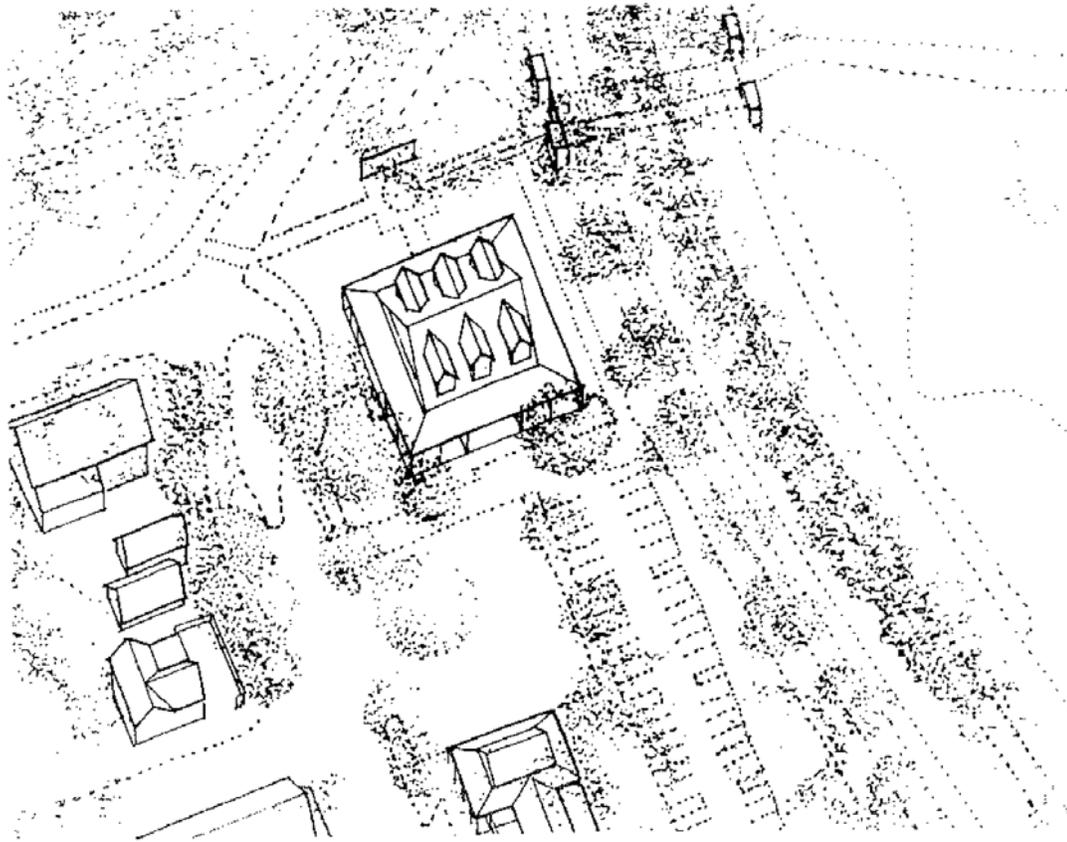
SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., 2010.

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GUIDELINES FOR SPECIAL AREAS AND SITES

Special design considerations and illustrative sketches for key areas of the Town Center are described in this section.

4-15: The New City Hall Site



Locating the new City Hall at the west end of Main Street offers the following advantages and opportunities:

The City Hall will be highly visible from Clayton Road and will become the Town Center's most important building.

The site provides a direct pedestrian connection to the Historic and Cultural Center through the pedestrian underpass. This linkage should be incorporated into the design of the City Hall and its grounds, and should be extended to the Mitchell Creek/Oak Street Park as well.

City Hall and public parking for the west end of the Town Center is located east of the building, between Clayton Road and the Main Street commercial buildings.

LSA

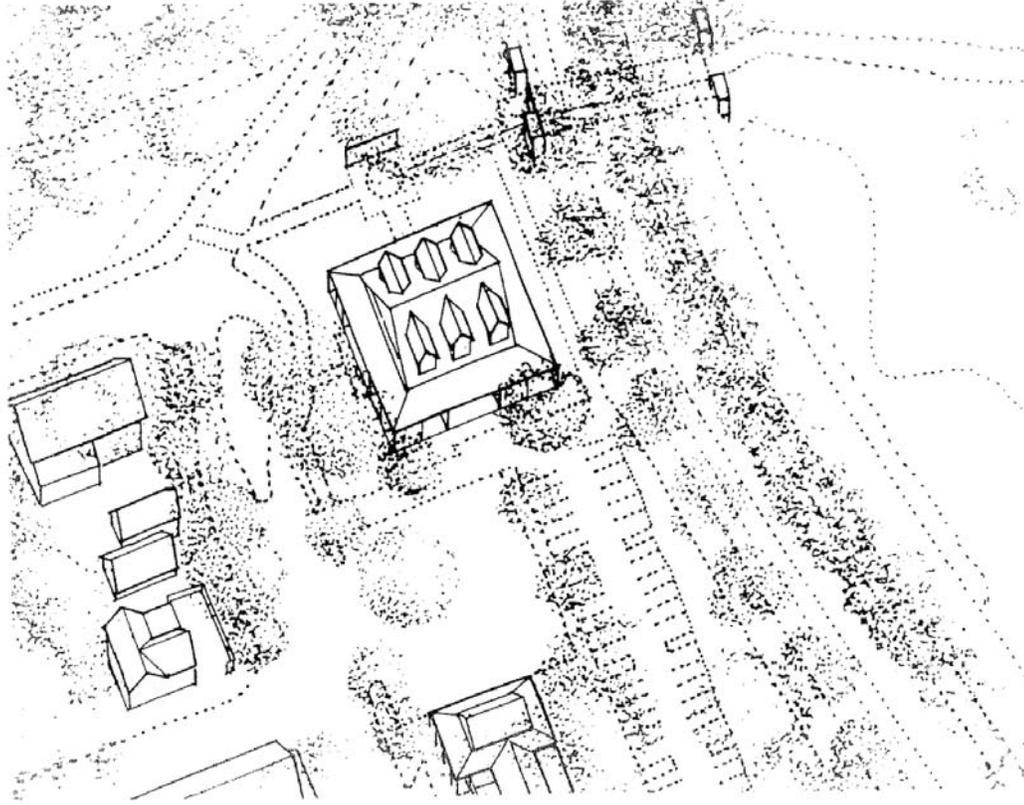
FIGURE III-12a

Clayton Community Church Project EIR
Adopted Specific Plan Guidelines
for Special Areas and Sites

GUIDELINES FOR SPECIAL AREAS AND SITES

Special design considerations and illustrative sketches for key areas of the Town Center are described in this section.

Figure 4-15: Landmark Building Site



The Town Center Gateway site is located at the west end of main street, at the intersection of Oak Street and Clayton Road.

Any building located on this site will be highly visible from Clayton Road and will become an identifying feature for the Town Center; therefore, any building proposed for this location shall be designed as a landmark building. This landmark building shall establish the architectural design theme of the Town Center, set the tone for the area, and announce entry into the Town Center.

The site provides a direct pedestrian connection to the Historic and Cultural Center as well as City Hall. This linkage shall be incorporated into the design of the building and its grounds, and should be extended to the Mitchell Creek/Oak Street Park as well.

Parking shall be located east of the building, between Clayton Road and behind Main Street Commercial Buildings. Parking shall be screened by Main Street buildings and by landscaping along Clayton Road.

LSA

FIGURE III-12b

Clayton Community Church Project EIR
Proposed Specific Plan Guidelines
for Special Areas and Sites

USES OF THIS EIR

A number of permits and approvals, including the discretionary actions listed above, would be required before development of the proposed project is able to proceed. As lead agency for the proposed project, the City of Clayton would be responsible for the majority of approvals required for development. Other agencies also may have some authority related to the project and its approvals. A list of the permits and approvals that may be required by the City and other agencies is provided in Table III-3. This EIR is intended to be used by the City and other agencies when deliberating on required permits and approvals.

Table III-3: Required Permits and Approvals

Lead Agency	Permit/Approval
City of Clayton	<ul style="list-style-type: none"> • Environmental Review • General Plan Amendment • Zoning Ordinance Amendment • Town Center Specific Plan Amendment • Development Plan • Use Permit • Tentative Parcel Map
Responsible Agencies	
San Francisco Bay Regional Water Quality Control Board (RWQCB)	• National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge
Federal Emergency Management Agency (FEMA)	• Conditional Letter of Map Revision and Letter of Map Revision

Source: LSA Associates, Inc., 2010.

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IV. SETTING, IMPACTS AND MITIGATION MEASURES

This chapter contains an analysis of each issue that has been identified through preliminary environmental analysis and the public scoping session for the Clayton Community Church Project EIR, and, as such, comprises the major portion of the Draft EIR. Sections A through H of this chapter describe the environmental setting of the project as it relates to each specific environmental issue evaluated in the EIR and the impacts that are expected to result from implementation of the project. Proposed mitigation measures to reduce potential impacts are recommended, where appropriate.

A. DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial, or potentially substantial, adverse change in the environment.¹ The guidelines implementing CEQA direct that this determination be based on scientific and factual data. Each impact and mitigation measure section of this chapter is prefaced by a summary of criteria of significance. These criteria have been developed using Appendix G of the *CEQA Guidelines* and applicable City policies.

B. ISSUES ADDRESSED IN THE DRAFT EIR

The following environmental issues are addressed in this chapter:

- Land Use and Planning Policy
- Transportation, Circulation, and Parking
- Air Quality
- Global Climate Change
- Noise
- Cultural Resources
- Visual Resources
- Hydrology and Water Quality

C. FORMAT OF ISSUE SECTIONS

Each environmental topic considered in this chapter comprises two primary sections: 1) setting, and 2) impacts and mitigation measures. An overview of the general organization and the information provided in the two sections is provided as follows:

¹ Public Resources Code 21068.

- *Setting.* The setting section for each environmental topic provides a description of the physical setting for the project site and its surroundings at the beginning of the environmental review process (e.g., existing land uses, noise environment, traffic conditions). An overview of regulatory considerations that are applicable to the specific environmental topic is also provided.
- *Impacts and Mitigation Measures.* The impacts and mitigation measures section for each environmental topic presents a discussion of the impacts that could result from implementation of the proposed Clayton Community Church Project. The section begins with the criteria of significance, establishing the thresholds to determine whether an impact is significant. The latter part of this section presents the impacts from the proposed project and mitigation measures, if warranted. The impacts of the proposed project are organized into separate categories based on their significance according to the criteria listed in each topical section: less-than-significant impacts, which do not require mitigation measures, and significant impacts, which require mitigation measures.

Impacts are numbered and shown in bold type, and the corresponding mitigation measures are numbered and indented. Impacts and mitigation measures are numbered consecutively within each topic and begin with an acronymic reference to the impact section (e.g., LU). The following symbols are used for individual topics:

LU:	Land Use and Planning Policy
TRANS:	Transportation, Circulation, and Parking
AIR:	Air Quality
GCC:	Global Climate Change
NOI:	Noise
CULT:	Cultural Resources
VIS:	Visual Resources
HYD:	Hydrology and Water Quality

These notations are found following each impact and mitigation measure to identify the significance of impacts before and after mitigation:

LTS:	Less Than Significant
S:	Significant
SU:	Significant and Unavoidable

A. LAND USE AND PLANNING POLICY

This section evaluates the land use-related effects of the proposed project, including effects associated with land use compatibility and land use patterns in Clayton. This section also contains a discussion of the consistency of the proposed project with relevant land use policies.

Policy conflicts do not, in and of themselves, constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts only when they would result in direct physical impacts. All other associated physical impacts are discussed in this EIR in specific topical sections, such as the Transportation, Circulation, and Parking; Air Quality; and Noise sections.

In reviewing this section, it is important to understand that the determination of whether a project is consistent with a specific policy can be subjective, and that consistency determinations are best made with a broad understanding of the often-competing policy objectives in a planning document. As a result, policy consistency determinations are ultimately made by the City's local decision-making or recommending bodies (e.g., the City Council and Planning Commission). The analysis in this section is intended to provide decision-makers with a list of the policies that are pertinent to the project and the site, and a preliminary conclusion regarding whether the project is generally consistent with these identified policies. These preliminary conclusions are intended to supplement decision-makers' own understanding of the various policy considerations surrounding the project.

1. Setting

The following section describes existing land uses within the project site and its vicinity, and summarizes relevant land use policies.

a. Overview. The project site is located in the City of Clayton (City), a community of approximately 10,873 people¹ located in Contra Costa County. Clayton was settled in 1857 and served initially as a supply town for coal mines after coal deposits were discovered nearby in 1859. After the mining boom ended in the 1870s, Clayton evolved into a predominantly agricultural community (which included cattle ranching and vineyards), and the population of the area declined or stagnated until post-World War II development activities.²

Clayton is currently bordered by undeveloped land and regional open space preserves (including Black Diamond Mines Regional Preserve, Mount Diablo State Park, and Lime Ridge Regional Open Space) to the north, east, and south, and the City of Concord to the west. The City of Clayton is located immediately to the east of the City of Concord and is located approximately 6 miles southwest of the City of Antioch; approximately 9 miles northeast of the City of Danville; and approximately 14 miles west of the City of Brentwood. Figure III-1 shows the location of the project site, and the site's regional context.

The project site is located at the western terminus to downtown Clayton. Downtown Clayton (also known as the Town Center), which comprises a concentration of commercial uses centered around Main Street and Center Street, is generally considered to be bounded by Clayton Road on the north; Marsh Creek on the east; High Street on the south; and Oak Street on the west. Residential

¹ California Department of Finance, 2009. *E-1, City/County Population Estimates with Annual Percent Change*.

² Clayton, City of, 1985. *Clayton 2000 General Plan*. Amended February 6, 2007.

subdivisions extend outward from downtown Clayton, terminating in open space preserves to the north, east, and south, and neighborhoods in the City of Concord to the west.

b. Project Boundaries. The site is bordered by Clayton Road to the north; two parking lots to the east (beyond which are the Clayton Historical Society and Kindercare Learning Center); Main Street to the south; and a landscaped area (beyond which is the northward extension of Main Street) to the west. Refer to Figure III-2 for an aerial photograph of the project site and its immediate surroundings.

c. Existing Land Uses Within the Project Site. The approximately 2.3-acre (gross) project site is located at 6005 Main Street in downtown Clayton and comprises two parcels: APNs 118-560-010-1 and 119-011-003. Land uses on the site include a one-story building and associated 25-space parking lot in the south-eastern and south-central portion of the site, and approximately 1.8 acres of undeveloped land in the remainder of the site. This area is covered with a turf, trees, and gravel. A gazebo is located to the east of the existing building on the site.

d. Existing Land Uses in the Vicinity of the Project Site. The following discussion details the land uses in the vicinity of the project site, traveling in a clockwise direction, starting from the area north of the project site.

- *North:* Clayton Road is located to the north of the site. Beyond Clayton Road are City civic facilities, including City Hall, the Police Department, the Maintenance Department, and the Clayton Community Library (owned by the City but operated by Contra Costa County).
- *East:* Two surface parking lots are located east of the site, beyond which are the Clayton Historical Society and Museum and the Kindercare Learning Center. The Clayton Historical Society and Museum comprise the City's major repository of local historical information. The facility includes exhibit space and is open to the public on Wednesdays, Sundays, and by appointment. Kindercare Learning Center is a daycare and educational facility for school-age and younger children.
- *South:* Main Street is located to the south of the site. Retail and service uses, including a pizzeria, coffee shop, barber shop, and salon are located on the south side of Main Street across from the project site. Diablo Street, a north/south street whose north end terminates at Main Street, extends south of the project site.
- *West:* Beyond the north/south pathway connecting downtown Clayton to the complex of City and County facilities surrounding City Hall (via a tunnel under Clayton Road) is a landscaped area, Mitchell Creek (which is located in a culvert), and Main Street (which turns northward to meet Clayton Road). Beyond Clayton Road to the west is Clayton Park and Mount Diablo Elementary School.

e. Planned Land Uses. No major projects are planned in the vicinity of the project site. However, elsewhere in Clayton, planned projects include smaller-scale residential and commercial projects, including the following: the fully-permitted Creekside Terrace at the northwest corner of Oak Street/High Street (7,200 square feet of retail space and seven single-family homes); Silver Oak Estates on the south side of Center Street–Oakhurst Drive–Concord Boulevard (nine single-family homes and 55 multifamily units); Diablo Pointe at the southeast corner of Regency Drive/Rialto Drive (24 single-family homes); and Oak Creek Canyon north of Diablo Parkway/Marsh Creek Road (five single-family homes).

2. Applicable Local Plans and Policies

The main guiding documents regulating land use within and around the project site are the City of Clayton General Plan (including the Land Use Element, Community Design Element, and Open Space/Conservation Element), City of Clayton Zoning Ordinance, and Town Center Specific Plan. The consistency of the proposed project with other non-land use related policies (including those in the Circulation Element and Growth Management Element) are addressed in the appropriate topical sections of the EIR (e.g., Transportation, Circulation and Parking). Applicable land use policies from the General Plan and Town Center Specific Plan are listed in Table IV.A-1.

a. City of Clayton General Plan. The City of Clayton General Plan (General Plan) is a comprehensive plan to guide development and use of land in the City. The General Plan is intended to accomplish the following goals:

1. Identify the community's environmental, social, and economic goals.
2. State the City's policies on the maintenance and improvement of existing development and the location and characteristics of future development needed to achieve community goals.
3. Establish within local government the ability to analyze local conditions and to respond to problems and opportunities concerning community development in a way consistent with local, regional, and State goals and policies.
4. Provide citizens with information about their community and with opportunities to understand and participate in the planning and decision-making process of local government.
5. Identify the need for and methods of improving the coordination of community development activities among all units of government.
6. Create a basis for subsequent planning efforts, such as the preparation of specific plans and special studies.

The following sections discuss elements of the General Plan that are applicable to land use policy as it relates to the project and project site.

(1) Land Use Element. The Land Use Element is intended to guide the organization of land uses in Clayton. The goals of the Land Use Element are:

1. To maintain the rural character that has been the pride and distinction of Clayton.
2. To encourage a balance of housing types and densities consistent with the rural character of Clayton.
3. To preserve the natural features, ecology, and scenic vistas of the Clayton area.
4. To control development through appropriate zoning, subdivision regulations and code enforcement.
5. To provide a comprehensive, integrated, greenbelt system, which includes bicycle, equestrian, and walking paths and is connected to regional systems.
6. To encourage a pedestrian-oriented community with areas of open space and recreational facilities for public use.

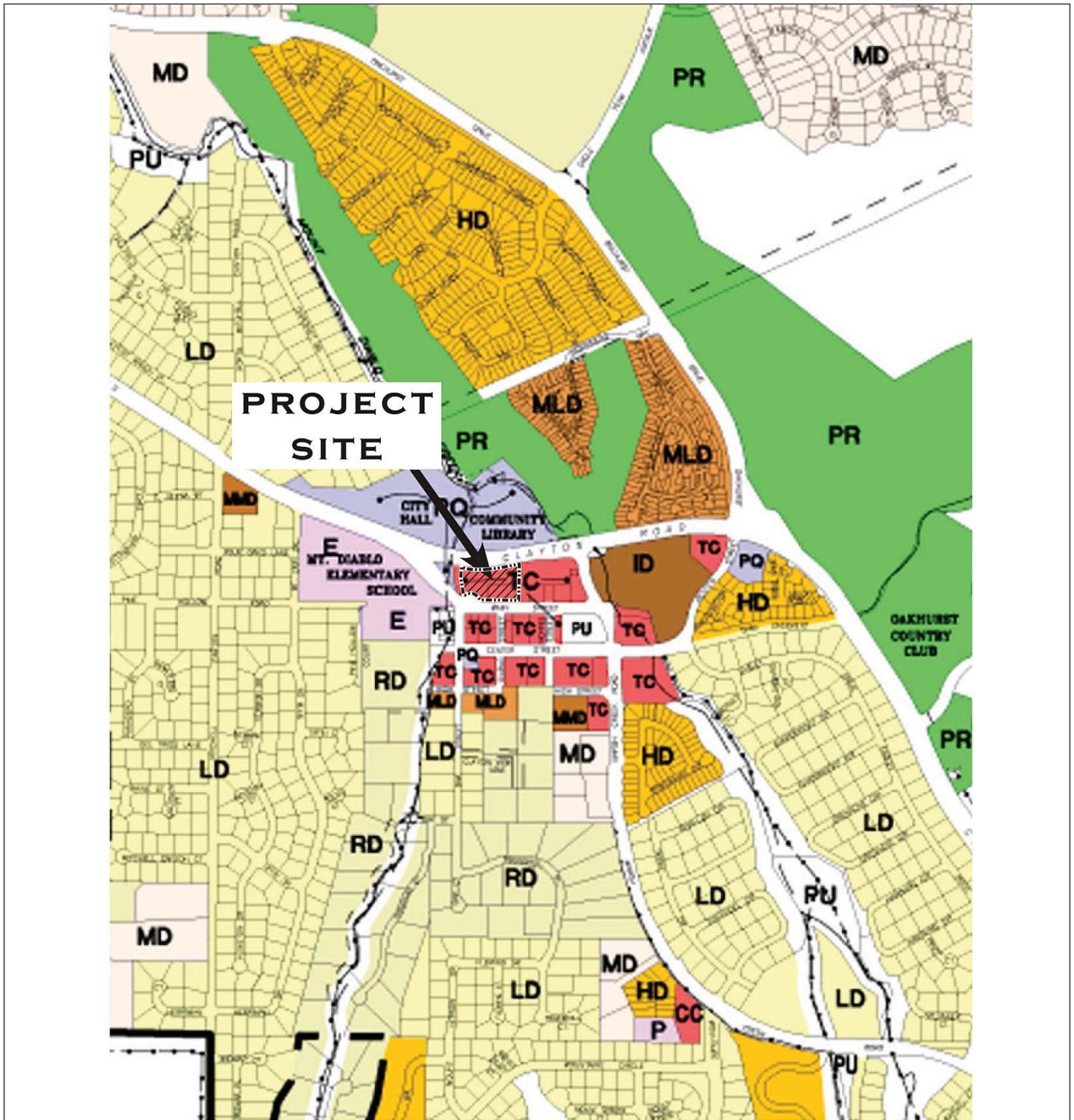
7. To enhance the sense of identity and pride in and to encourage historical awareness of Clayton.
8. To ensure an adequate commercial tax base for Clayton.
9. To create and maintain an attractive Town Center area and to make it the commercial, civic, and heritage focus for the community.
10. To provide housing opportunities which serve the varied social and economic segments of the Clayton community.

A primary component of the Land Use Element is the mapped pattern of land use designations that are assigned to the City, which dictate the “application, location, extent, type and density of development.” The project site is designated “Town Center” in the General Plan Diagram (i.e., the General Plan’s land use map). The land uses permitted within this designation are “the retail sales, commercial service, restaurant, bar, commercial recreation, child day care, office, upper-floor residential, visitor-accommodation uses listed in the “Town Center Commercial” land use designation of the *Town Center Specific Plan*.” Since the Town Center Specific Plan is the governing document for areas designated Town Center, the General Plan requires that all new development projects be reviewed for design compatibility with the existing urban fabric, in addition to the “theme and character” of the Town Center, as described in the Specific Plan. Figure IV.A-1 shows General Plan land use designations within and around the project site.

The General Plan also establishes a maximum building height of 40 feet and lot coverage maximums for parcels of different sizes. The structural coverage of sites primarily used for ground-floor office uses is limited to 35 percent. The structural coverage of sites used for other uses ranges from 100 percent for sites less than 10,000 square feet in size to 40 percent for parcels over 40,000 square feet.

(2) Community Design Element. The Community Design Element is intended to guide the design of Clayton such that the aesthetic character of the City and its surroundings is protected. The overarching goals of the Community Design Element are: 1) To maintain the rural and historical character of Clayton’s neighborhoods and 2) To establish an attractive and vibrant pedestrian-friendly Town Center with a mixture of commercial, civic, recreational, and residential uses. Guidance on design-related land use and circulation issues is contained in the Town Center Specific Plan. However, the Community Design Element also notes that the Mitchell Creek trail provides important access to the Town Center, and encourages the use of hitching posts downtown to allow for equestrian use.

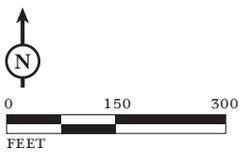
(3) Open Space/Conservation Element. The Open Space/Conservation Element is intended to guide the protection and enhancement of open space in and around the City, and reflect the multiple uses of open space (ranging from the protection of scenic views, to providing cross-City bike and pedestrian routes, protecting agricultural land, allowing for the development of parks, and limiting development in areas considered hazardous due to geologic or other reasons). The goal of the Open Space/Conservation Element is to maintain a system of active open space along stream channels and passive open space in hillside areas as a means to preserve the rural character of the community. Key policy objectives that relate to potential development of the project site include the careful design of projects in floodways and the protection of greenbelts, including those around creeks.



**PROJECT
SITE**

LSA

FIGURE IV.A-1



Residential	Commercial	
Rural Estate	Town Center	Private Open Space
Single Family Low Density	Kirker Corridor	Project Site
Single Family Medium Density	Convenience Commercial	
Single Family High Density	Cultural Center/ Public/Quasi-Public	
Multifamily Low Density	School	
Medium Density	Private Open Space	
Institutional Density	Public Park/Open Space	
	Agriculture	
	Quarry	

Clayton Community Church Project EIR
General Plan Land Use
Designations Map

SOURCES: CITY OF CLAYTON, MARCH 2010; LSA ASSOCIATES, INC., 2010.

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b. City of Clayton Zoning Ordinance. The City of Clayton Zoning Ordinance (Zoning Ordinance), which is contained in Chapter 17 of the Municipal Code, implements the policies of the General Plan, and other City plans, policies, and ordinances. The Zoning Ordinance divides the City into districts, each of which is assigned different development regulations. These regulations direct the construction, nature, and spatial orientation of new development. Figure IV.A-2 shows Zoning Ordinance land use designations within and around the project site.

The project site contains two zoning designations. The portion of the site occupied by the existing building (APN 119-011-003) is zoned “Limited Commercial.” The remainder of the site (APN 118-560-010-1) is zoned “Planned Development.”

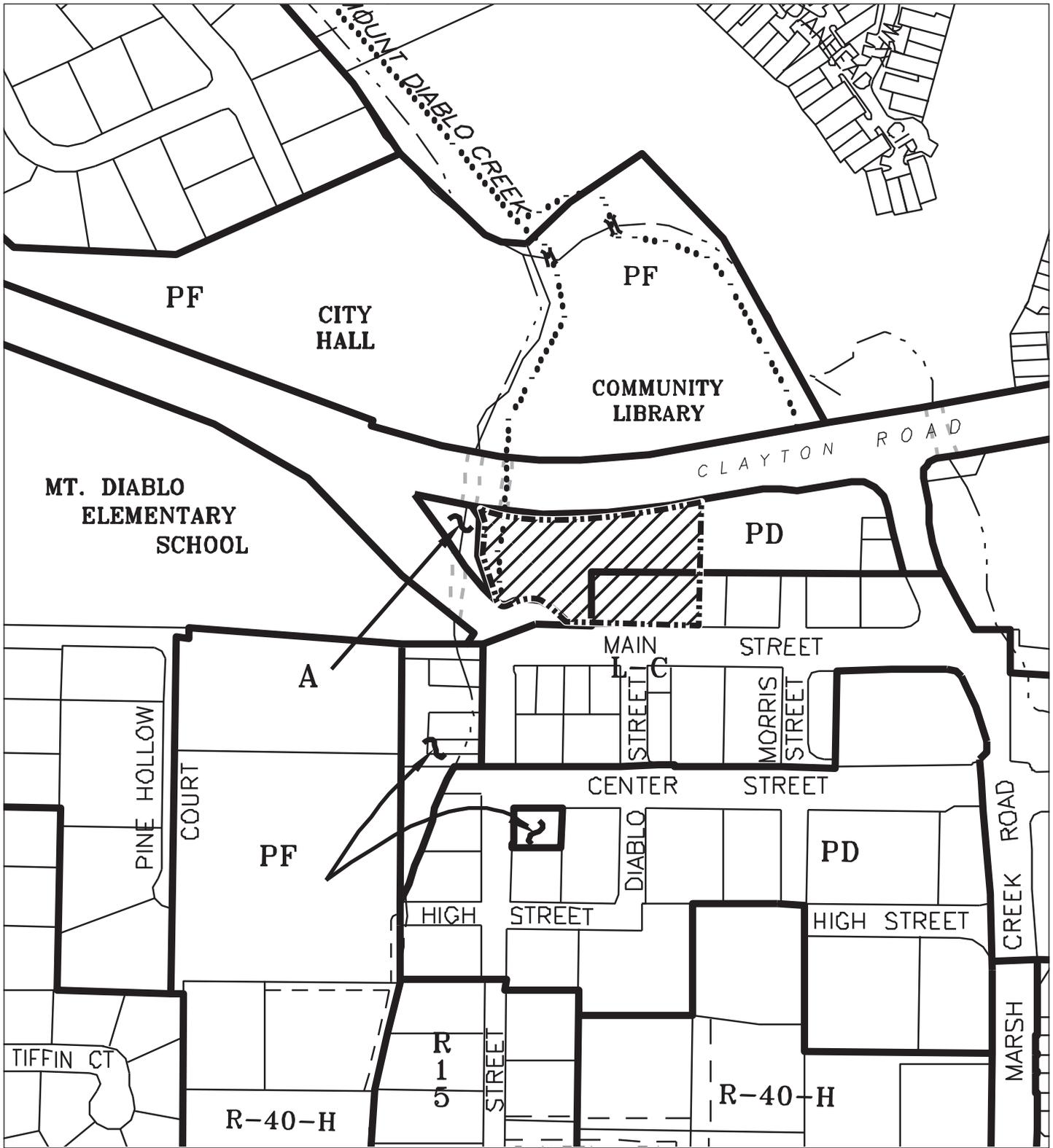
Because the project site is located within the Town Center Specific Plan, land uses permitted within the Limited Commercial zone within the project site are the retail sales, commercial services, restaurant, bar, commercial recreation, office, upper-floor residential and visitor accommodation uses permitted under the “Town Center Commercial” designation in the Town Center Specific Plan. Building height in the Limited Commercial zone is limited to 40 feet, and required setbacks are 5 feet from all lot lines (unless the lot shares a common lot line with a property in a residential zone, in which case the required setback is 10 feet).

The Planned Development zone is intended to allow for “an integrated, comprehensively-planned area located on a single tract or contiguous tracts of land under a single or joint ownership which allows flexibility in the land use controls typically required by another zone.” The purpose of the Planned Development zone is to: implement the objectives of the General Plan; conserve outstanding natural and archaeological features; provide more open space; encourage building variety and innovative approaches to design; and promote efficiencies through shared facilities and services. Only properties greater than 0.5 acre in size can be rezoned to Planned Development, and all mixed use developments would require rezoning to a Planned Development zone prior to the development sponsor seeking development approvals.

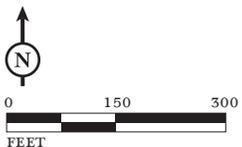
Permitted uses and densities are those listed in the General Plan for the overlying land use designation or designations. However, the Planning Commission or City Council may adopt as part of a Site Plan or a Development Plan (the latter would be required for the proposed project) limitations and restrictions different from those specified elsewhere in the Municipal Code, which are designed to protect, foster and maintain the health, safety, and general welfare of the community, including standards relating to building coverage, landscaping, the size and location of parking areas, architectural design, and lighting.

For projects that require a Development Plan permit, and that are larger than 1 acre, open space must be set aside that comprises at least 20 percent of the project site, and at least half the open space should be designated as active open space. Circulation and parking standards in Planned Development zones are those listed in the Municipal Code, as interpreted by the City Engineer.

c. Town Center Specific Plan. The City of Clayton Town Center Specific Plan (Specific Plan) is intended to guide the development of downtown Clayton, the commercial center of the City. The Specific Plan was designed to address planning-related issues stemming from the City’s adoption in 1985 of the General Plan and the Oakhurst (also known as Keller Ranch) project (proposed and ultimately built northeast of downtown). The Specific Plan covers the historic center of Clayton. The Specific Plan details policies and regulations pertaining to the distribution of land uses in downtown;



LSA



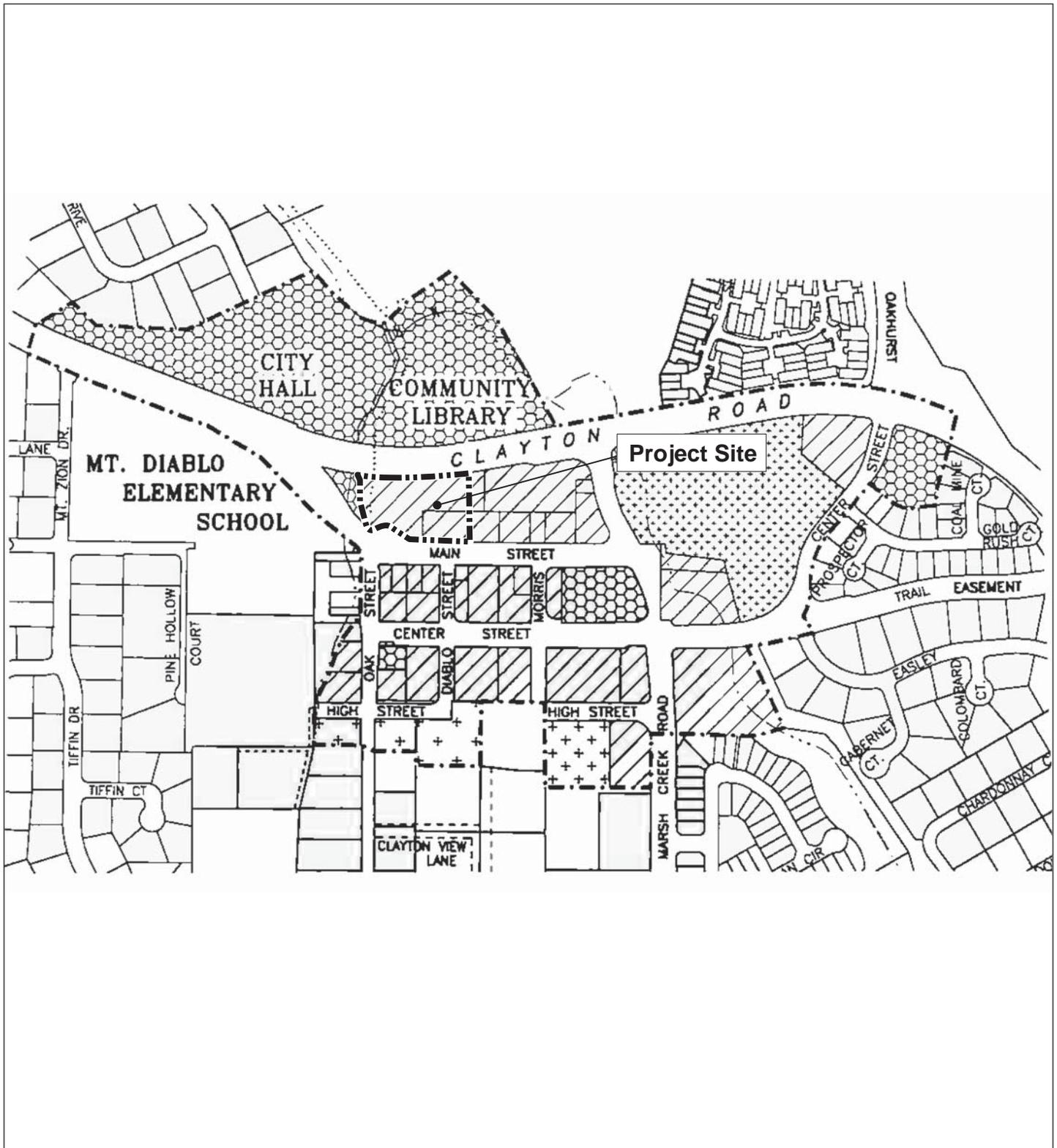
Residential Districts	
R-10	10,000 S.F. Minimum Lot Size
R-12	12,600 S.F. Minimum Lot Size
R-15	15,000 S.F. Minimum Lot Size
R-20	20,000 S.F. Minimum Lot Size
R-40	40,000 S.F. Minimum Lot Size
R-40-H	40,000 S.F. Minimum Lot Size (Horses Allowed)
Other Districts	
PD	Planned Development
PF	Public Facility
L-C	Limited Commercial
A	Agricultural

- City Limits
- Zoning Boundary
- Lot Line
- Project Site

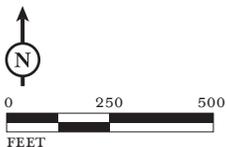
FIGURE IV.A-2

Clayton Community Church Project EIR
Zoning Map

SOURCES: CITY OF CLAYTON, MARCH 2007; LSA ASSOCIATES, INC., 2010.



LSA



- PROJECT SITE
- TOWN CENTER COMMERCIAL
- MULTI-FAMILY LOW DENSITY RESIDENTIAL
(7.8 - 10 UNITS PER GROSS ACRE)
- MULTI-FAMILY MEDIUM DENSITY RESIDENTIAL
(10.1 - 15 UNITS PER GROSS ACRE)
- INSTITUTIONAL RESIDENTIAL
(7.8 - 20 UNITS PER GROSS ACRE)
- PUBLIC FACILITY
- SPECIFIC PLAN BOUNDARY

FIGURE IV.A-3

Clayton Community Church Project EIR
Town Center Specific Plan
Land Use Designations Map

SOURCES: CITY OF CLAYTON, MARCH 2007; LSA ASSOCIATES, INC., 2010.

the location and size of streets, walks, and other infrastructure; standards for development; and methods for financing public improvements. Goals of the Specific Plan include: establish an attractive and vibrant Town Center with a mixture of uses; maintain and enhance retail and restaurant uses; establish the Town Center as the focus of the City’s economic development efforts; and protect historical resources in the Town Center.

The land use designation of the project site in the Town Center Specific Plan is “Town Center Commercial.” There are a wide variety of permitted land uses in the Town Center Commercial designation, including antique shops, banks, bookstores, jewelry stores, laundries, sporting goods stores, and video rentals. Generally, office uses, residences, medical and dental offices, real estate offices, and travel agents are limited to the upper floors of buildings in order to establish a vibrant retail presence in downtown. Religious assembly (e.g., church) uses are neither permitted nor conditionally permitted uses in the Specific Plan. Figure IV.A-3 shows the Specific Plan land use designations within and around the project site.

The former Pioneer Inn building on the project site is listed in the Specific Plan as a recognized historic resource. In addition, the Mitchell Creek embankment is noted as forming a natural boundary to the Town Center on the west. Policy 2b of the Specific Plan calls for a new City Hall to be developed “at a prominent location at the west end of Main Street” in order to reinforce the Town Center as the focus of community life in Clayton and to generate additional foot traffic downtown. The project site is identified as “The New City Hall Site” in Figure 4-15 of the Specific Plan. According to the Specific Plan, the site would be advantageous for development of a new City Hall due to: the visibility of the site from Clayton Road (and the potential for the City Hall to “become the Town Center’s most important building”); the presence of a pedestrian connection via the pathway under Clayton Road; and the availability of parking. However, plans for a new City Hall in this location have been informally discarded by the City due to the renovation in the 1990s of the former DeMartini Winery building and the use of the structure as a permanent City Hall.

Other policies in the Specific Plan seek to protect and enhance the regional trail network (including trails adjacent to creek channels) and to protect significant landscape features.

Table IV.A-1: Applicable General Plan and Specific Plan Policies

Policy	Text	Project’s Relationship to Policy
General Plan Land Use Element		
4a	Expand the commercial tax base in appropriate areas.	The project would expand the commercial tax base in the Town Center through the development of 7,957 square feet of retail space. However, the commercial tax base created by the proposed project (with its church uses) would not be expanded to the extent of a project containing entirely commercial land uses. According to the Draft Economic/Fiscal Evaluation of the proposed project prepared by Bay Area Economics, the project would generate approximately \$20,000 in annual sales tax revenues. Taking into account City expenditures to serve the proposed project and other tax revenues, the project would result in a slight surplus of \$573 per year.
4b	Maintain the Town Center and the commercial areas of Kirker Pass Road and Marsh Creek Road as the sole areas for commercial development.	As discussed under Policy 4a, the project would include commercial space, but a large proportion of total interior square footage that would be developed on the site (approximately 81 percent) would be intended for church and related land uses.

Table IV.A-1 Continued

Policy	Text	Project's Relationship to Policy
5a	Review commercial development to ensure compatibility with surrounding uses and the environmental setting.	The Town Center is characterized by a mixture of uses, including retail, restaurant, office, museum space, and open space. The proposed project's ground floor retail space along Main Street would be compatible with surrounding uses.
General Plan Community Design Element		
2a	Maintain the greenbelt system as an edge to streets and development.	The western portion of the site closest to Mitchell Creek would remain as functional open space (i.e., it would not be developed with new structures) and would not intrude on the greenbelt adjacent to the creek.
2b	Identify areas where vegetation should be preserved.	No sensitive natural communities (e.g., riparian vegetation or wetlands) exist on the site (see Chapter VI, CEQA-Required Assessment Conclusions). Of the 48 mature trees on the site, approximately 31 trees (65 percent of the total) would be preserved. Of the 17 trees proposed for removal, 15 are in "poor" condition, according to the Arborist Report prepared for the project. (See Chapter III, Project Description, for a detailed discussion.) The other two trees are in "fair" condition. Of the 15 oak trees present on the project site, three would be removed.
11a	Promote the land uses necessary to strengthen and enhance the Town Center including specialty retail shops and restaurants.	Although the project would include approximately 7,957 square feet of interior space that could be used for specialty retail shops and restaurants, the majority of interior space (34,207 square feet) would be used for church and related uses.
11b	Prioritize and stimulate the development of multi-story buildings with ground floor uses which enhance pedestrian activity in the Town Center.	The ground floor frontage of the buildings facing Main Street would contain retail space, which could enhance pedestrian activity in the Town Center. Based on the activity summary provided by the project sponsor, the site would be used throughout the week by church members, who would be expected to contribute to pedestrian activity.
11c	Integrate open space, courtyards, and paseos into new and re-configured projects.	The project includes approximately 56,242 square feet of open space, including paseos, courtyards, walkways, and other public gathering places and landscaped areas.
12b	Use existing historic buildings and structures in the Town Center as the basis for and overall design themes in the Town Center.	The proposed buildings and layout of the site would reference historical building configuration and design in downtown Clayton, including through the use of two-story wood-frame buildings with horizontal siding, front porches, and rectangular facades. The two buildings in the southern portion of the site would be clustered near Main Street, with parking to the north – similar to the configuration of existing historic buildings in the vicinity of the site.
12d	Apply the urban design guidelines of the <i>Town Center Specific Plan</i> to new construction, additions, and remodels in the Town Center.	In general, the design of the project is in accordance with the urban design guidelines of the Town Center Specific Plan. Please refer to Section IV.G, Visual Resources, for additional detail.
General Plan Open Space/Conservation Element		
1a	Designate as greenbelt, stream channel areas for flood control setback, maintenance of riparian habitat and preservation of open space.	The area along the far western and southwestern edges of the site (generally within the Regulatory Floodway around Mitchell Creek designated by FEMA) would be retained as functional open space (i.e., it would not be developed with structures) to allow flood waters to infiltrate into the groundwater system. Approximately 55 percent of the site would consist of open space.

Table IV.A-1 Continued

Policy	Text	Project's Relationship to Policy
1c	Provide non-motorized travel linkage to all areas of the community, to greenbelt paths, to schools, to activity centers and to areas of historical interest.	Pedestrian access within the site would occur via a series of interlinking pathways and courtyards. The existing pathway along the western boundary of the site, which connects City facilities with downtown Clayton, would be preserved and connected to the buildings on the project site with east/west pathways.
1e	Keep improvements along greenbelts to a minimum but provide path improvements to minimize erosion, provide directional markings and create rest areas.	The project includes connections to the existing path along Mitchell Creek, but no structures would be developed in the western portion of the site (in the vicinity of the Regulatory Floodway designated by FEMA).
3b	Cluster development in order to allow a Private Open Space designation on sites that pose natural limitations such as a stream channel, earthquake fault, unstable soil or prominent hilltop or ridge, fire hazard areas, and ground water recharge areas.	Although no "natural limitations" of the type listed in Policy 3b occur on the site, the far western portion of the site is located within a FEMA-designated Regulatory Floodway that extends along Mitchell Creek. This area would remain as open space as part of the project (although the area would not be subject to a formal open space land use designation), and buildings would be clustered in the eastern portion of the site.
Town Center Specific Plan		
I.1	Support and enhance the town center as a vital mixed use area containing retail, restaurant, civic, recreational, and residential uses. Recognize the importance of an appropriate retail mix including small businesses, to the continued vitality of the Town Center.	The proposed project would itself be mixed use, with church, office, and retail uses. However, the retail component of the project is small in the context of other uses, comprising approximately 19 percent of total interior square footage.
I.2	Prioritize and stimulate the development of multi-story buildings with ground floor uses which enhance pedestrian activity in the Town Center. Channel office and service uses to locations on upper floors.	The two buildings proposed adjacent to Main Street would contain ground floor retail uses along the street that would be expected to enhance pedestrian activity in the Town Center.
I.3	Encourage future development on Main Street to provide a continuous row of retail shops and restaurants with as few breaks as possible in the shopping frontage.	The project includes approximately 240 linear feet of nearly continuous retail frontage along Main Street (Building 2 and Building 3 would be separated by a plaza).
I.4	Encourage development of well-designed multi-story commercial buildings in order to enhance the prominence of the Town Center to motorists on Clayton Road.	While a conclusion regarding the building's design merits rests with decision-makers, the proposed buildings are designed to promote foot traffic along Main Street, encourage walkability within the site, and reference historic buildings within the Town Center.
I.6	Encourage the provision of small residential units on the upper floors of commercially-designed parcels.	The project includes no residential uses.
II.1	Prioritize the development and expansion of retail and restaurant uses in the Town Center.	The project includes approximately 7,957 square feet of retail space (which could also be used for restaurants) along Main Street, comprising approximately 19 percent of overall interior space developed as part of the project.

Table IV.A-1 Continued

Policy	Text	Project's Relationship to Policy
II.2	Encourage retail and restaurant owners to utilize the flexibility provided in the City's Off-Street Parking and Loading Regulations to develop and expand their business.	Based on the City of Clayton Municipal Code, the project would be required to provide a total of 204 parking spaces, including 167 spaces for the church building/sanctuary and 37 parking spaces for the proposed administrative, educational, and commercial uses. Therefore, the 54 spaces provided on-site would fall well short of Municipal Code requirements. The project sponsor proposes to address the parking space deficit via shared parking agreements with owners of private parking lots elsewhere in Clayton and use of existing public parking lots and on-street spaces.
III.1	Nurture and support established, expanded, and new businesses (including uses permitted with a use permit) in the Town Center.	The project includes 7,957 square feet of retail space that could be made available to existing or new businesses if the space is leased to such businesses by the project sponsor.
III.3	Encourage and support the operation of small, independent businesses and growing businesses.	See Policy III.1.
III.4	Encourage the renovation and re-use of long-term vacant or under-utilized buildings as well as the development of vacant or under-utilized parcels.	The project site is currently developed at a much lower intensity than is permitted in the General Plan, Zoning Ordinance, and Town Center Specific Plan. The project would redevelop the site with a higher intensity of uses.
IV.1	Ensure historic buildings which retain their historic character are incorporated into commercially-viable uses, re-uses, or adaptations.	Although the former Pioneer Inn building on the site is designated as historic in the Town Center Specific Plan, it is not considered a historic resource pursuant to CEQA, and is not eligible for the National Register of Historic Places or the State Register of Historic Resources. Please refer to Section IV.F, Cultural Resources, for additional detail. The building would be demolished as part of the project. However, the City may require the project sponsor to install a plaque commemorating the building on the site as a condition of approval.
IV.2	Ensure renovations of historic buildings and structures retain the building or structure's historic character.	See Policy IV.1.
IV.3	Strive to incorporate existing healthy large oaks and historically significant trees into the open space areas of development plans.	Of the 48 mature trees on the site, approximately 31 trees (65 percent of the total) would be preserved. Of the 15 oak trees present on the project site, three would be removed.
1 (Municipal Services)	New developments should maintain natural drainage patterns when possible.	To reduce flood risks, all built areas (including structures) would be elevated above the FEMA Flood Zone base flood elevation. The area along the far western and southwestern edges of the site would be retained as open space to allow flood waters to infiltrate into the groundwater system. In addition, an underground detention system would be installed under the proposed parking lot. Stormwater generated on the project site would be treated through a combination of landscape features and storm drain infrastructure.
3 (Municipal Services)	All open creeks should be maintained in as near natural a state as possible.	The project would not affect the channel of Mitchell Creek, and the far western portion of the site (closest to the creek) would be maintained as open space.

Table IV.A-1 Continued

Policy	Text	Project's Relationship to Policy
2a (Urban Design)	Create public places in the Town Center where residents can meet informally.	After project implementation, approximately 56,242 square feet (approximately 55 percent) of the site would consist of open space, including paseos, courtyards, walkways, and other public gathering places, and landscaped areas.
2b (Urban Design)	Build a new City Hall at a prominent location at the west end of Main Street, emphasizing its character as a town hall in the historic American tradition – a focus for community services and accessible local government.	The project would preclude the development of a new City Hall at the site. However, this policy has been informally discarded by the City due to the renovation and use of the former DeMartini Winery as a permanent City Hall.
2d (Urban Design)	Emphasize the Town Center character as a place for pedestrian enjoyment, following the traditional building-to-street relationship of older towns and villages. Buildings are to be located at the front of properties near the sidewalk, with active, well-scaled frontages that create pedestrian interest. Parking lots are to be located near the rear of buildings, well-planted and screened from street view.	The configuration of proposed buildings would generally reflect the historic pattern of development in the Town Center. Buildings adjacent to Main Street would be built near the southern lot line and would feature articulated facades, canvas awnings, and large windows that are typically attractive to pedestrians. The proposed parking lot would be located in the northeastern portion of the site, and would be partially screened by Building 3.
4a (Urban Design)	Preserve Mitchell Creek and Diablo Creek in their natural settings as important features and open space amenities of the Town Center.	See Policy 3 (Municipal Services).
4d (Urban Design)	Develop a densely-planted buffer along the south edge of the new Clayton Road right-of-way. The buffer should screen the view of parked cars, but not block views of the distant hills.	The proposed landscape plan includes a row of trees adjacent to Clayton Road. These trees would not be expected to substantially block views of distant hills (although views may be intermittently blocked).
4e (Urban Design)	Adopt strong design standards to retain existing mature trees and other natural features in new development.	Of the 48 mature trees on the site, approximately 31 trees (65 percent of the total) would be preserved. Of the 15 oak trees present on the project site, three would be removed.
4f (Urban Design)	Provide direct pedestrian linkages between the Town Center and the regional trail system.	The project includes pedestrian linkages to the trail running along the western boundary of the site that connects the municipal complex and Town Center.
4g (Urban Design)	Retain the Town Center's existing pattern of yards and open spaces, including the opportunity for outlooks to the surrounding foothills, by requiring yards, courtyards, or other open spaces in each new development.	Approximately 55 percent of the site would be set aside as open space, and some of this open space would allow for views to surrounding hillsides.

3. Impacts and Mitigation Measures

This subsection analyzes impacts related to land use and planning policy that could result from implementation of the proposed project. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this subsection presents the impacts associated with the proposed project. As noted at the beginning of this section, conflicts between a project and applicable policies do not constitute significant physical environmental impacts in and of themselves; as such, the proposed project's consistency with applicable policies focuses on whether policy conflicts could result in physical environmental impacts.

a. Criteria of Significance. Implementation of the proposed project would have a significant effect on land use and planning policy if it would:

- Physically divide an established community.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance).
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

b. Less-Than-Significant Land Use Impacts. The following discussion describes land use and planning policy impacts associated with implementation of the Clayton Community Church Project.

(1) Community Integrity. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may constrain travel from one side of the community to another.

Implementation of the proposed project would result in the development of a mixed-use complex comprising church, office/administrative, community, and retail space. The site is currently occupied by the former Pioneer Inn building (currently used by the Clayton Community Church for administrative and community activities), a parking lot, and open space. The former Pioneer Inn building was once a popular restaurant and informal community gathering place, but closed in the early 1990s. Although the project site is privately-owned, it is accessible to the public, and access is provided via a pedestrian path located along the western boundary of the site and Main Street. This path connects downtown Clayton to the complex of City facilities surrounding City Hall via a tunnel under Clayton Road.

Implementation of the proposed project would result in the demolition of the existing building on the site and the development of four new buildings comprising approximately 42,000 square feet of interior space. Approximately 55 percent of the site would be used for open space, with a series of publicly-accessible plazas, courtyards, lawns, and other spaces. Although these spaces would be part of the project, and would be used by the church and its members, they would not be gated and public access would not be restricted. The proposed project would increase activity on the site, due to regularly-scheduled events for church members, but is not expected to pose a formal barrier to community access.

An extensive pedestrian circulation system is proposed as part of the project to link the proposed structures with each other, the existing pedestrian trail in the western portion of the site, and the rest of downtown Clayton. The existing pathway along the western boundary of the site, which connects City facilities with downtown Clayton, would be preserved and connected to the buildings on the project site with east/west pathways. Therefore, the proposed project would allow for unconstrained access within and around the site, and would not divide an established community.

(2) Compatibility with Surrounding Land Uses. Implementation of the project would not result in the development of uses that would be inherently incompatible with surrounding land uses

(e.g., a power plant, factory, or other high noise, air pollution, or hazard-generating land use). As described below under Impact LU-1, the proposed project could compromise the availability of public parking used by local businesses in the vicinity of the project site. However, the proposed church and associated administrative, community, and retail space would not permanently interfere with the daily operations of surrounding land uses, including the City facilities to the north of the site; the parking, educational, and museum uses to the east of the site; the commercial uses to the south of the site; and the open space uses (including Mitchell Creek) to the west of the site. The proposed project would substantially increase activity on the site through attendance at regularly-scheduled and special events such as worship services, bible study, and summer movie nights. In general, regularly-scheduled/weekly events, such as Sunday worship services, would have a peak attendance of 500 persons or fewer. Although such attendance would generate increased traffic and noise levels in the vicinity of the site, and increase demand for a limited parking supply (see Sections IV.B, Transportation, Circulation and Parking and IV.E, Noise, for additional detail), this increase in activity level would not be fundamentally inconsistent with the land use character of downtown Clayton. The project would also increase the supply of retail space in downtown by approximately 7,957 square feet, and the size and configuration of retail space on the site would be similar in character to existing retail facilities along Main Street. Therefore, the proposed project would not be incompatible with the commercial nature of downtown Clayton. However, please refer to Impact LU-1, below, for a discussion of potential adverse effects of the proposed project on the future commercial development in downtown Clayton.

In addition, none of the uses surrounding the project site are fundamentally incompatible with the uses proposed for the project site. These existing uses are not associated with use characteristics that would adversely affect the operation of the proposed sanctuary building and associated administrative, community, and retail space. Religious uses are a typical component of traditional downtown districts in smaller American cities and towns, and the proposed church and surrounding retail uses may mutually benefit from the mix of uses present in the Town Center. For instance, church members may patronize local businesses,³ and local residents visiting downtown may decide to attend church events in the course of pursuing other activities downtown.

During the EIR scoping period, concerns were raised in regard to the compatibility of proposed religious assembly uses with establishments that sell alcoholic beverages, in particular the ability of businesses in close proximity to the project site to secure liquor licenses in the event the project is approved. Article XX, Section 22 (Alcoholic Beverage Control) of the State Constitution permits the State Department of Alcoholic Beverage Control to consider the proximity of an alcohol-selling establishment to a church when reviewing an application for a liquor license. However, “(o)rdinarily the ultimate fact for determination by the Department of Alcoholic Beverage Control in passing on an application for a license, or for transfer of a license, is whether the granting ‘would be contrary to public welfare or morals[.]’ [I]f the department makes a finding that the granting of the application ‘would be contrary to public welfare,’ and there is substantial evidence to show ‘good cause’ for such determination, the finding must be sustained.” This finding must be supported by substantial evidence. Therefore, mere proximity of a church to a business seeking a liquor license does not

³ Bay Area Economics, 2011. *Draft Economic/Fiscal Evaluation of the Clayton Community Church Development Proposal*. March 28.

constitute sufficient grounds for denial of the license by the Department of Alcoholic Beverage Control.⁴

(3) Religious Land Use and Institutionalized Persons Act (RLUIPA). This short discussion of the Religious Land Use and Institutionalized Persons Act (RLUIPA) is included in this section for informational purposes only, since RLUIPA is often a concern when lead agencies are considering applications for projects involving religious assembly uses. According to the U.S. Justice Department, RLUIPA protects religious institutions from unduly burdensome or discriminatory land use regulations. The law was passed by Congress in 2000, after hearings in which Congress found that houses of worship, particularly those of minority religions and start-up churches, were disproportionately affected, and in fact often were actively discriminated against, by local land use decisions. Congress also found that, as a whole, religious institutions were treated unfairly compared to secular institutions. Congress further found that zoning authorities frequently were placing excessive burdens on the ability of congregations to exercise their faiths in violation of the Constitution. Section 2(a) of RLUIPA bars zoning restrictions that impose a “substantial burden” on the religious exercise of a person or institution, unless the government can show that it has a “compelling interest” for imposing the restriction and that the restriction is the least restrictive way for the government to further that interest.

This environmental review document, as required by CEQA, evaluates the impacts of the proposed project based on the same transparent standards and impact thresholds to which other development projects in the City of Clayton are subject. Impacts and mitigation measures are identified for the proposed project (and other development projects in the City), regardless of protections imposed by RLUIPA.

(4) Habitat Conservation Plan/Natural Community Conservation Plan. The City of Clayton is part of the East Contra Costa Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). The HCP/NCCP, which covers 175,000 acres in eastern Contra Costa County, provides regional development guidelines and a comprehensive plan to protect critical habitat, while streamlining the permit process for development regulations. The intent of the HCP/NCCP is to provide development permits for up to approximately 12,000 acres of development (along with impacts associated with approximately 1,100 acres of rural infrastructure projects) while setting aside up to approximately 30,000 acres of land that will be managed for plant and animal species and associated habitat. Under the HCP/NCCP, the U.S. Fish and Wildlife Service and California Department of Fish and Game provide regional protected species “take” permits to the cities within the HCP/NCCP and the County. Instead of seeking individual “take” permits from agencies, project proponents, under the HCP/NCCP, are able to secure permits from local agencies (streamlining the development process by alleviating the need for project-specific consultation with natural resources agencies). However, the proposed project would not fall under the jurisdiction of HCP/NCCP requirements because it would not result in the “take” of a protected plant or animal species (see Chapter VI, CEQA-Required Assessment Conclusions).

c. Significant Land Use Impacts. Implementation of the proposed project would result in the following significant land use and planning policy impact.

⁴ State of California, 2011. Alcoholic Beverage Control Act With Regulations and Related Statutes. Website: www.abc.ca.gov/forms/ABCAct_2011.pdf.

Impact LU-1: The proposed project, by introducing religious uses to the Town Center, would conflict with the intent of the General Plan, Town Center Specific Plan, and Zoning Ordinance, resulting in physical environmental impacts related to parking supply and demand and the potential adverse effect on future commercial development of Downtown Clayton. (S)

The following discussion addresses the consistency of the proposed project with the three key land use planning documents discussed in this section: the General Plan, Zoning Ordinance, and Town Center Specific Plan.

General Plan. Implementation of the proposed project would require an amendment to the General Plan that would add “religious assembly and accessory uses such as classrooms, child care, and teen centers” to the list of uses permitted under the “Town Center Commercial” land use designation of the Town Center Specific Plan. This amendment would bring the proposed project into general consistency with the General Plan (although additional amendments would be required to bring the proposed project into consistency with the Zoning Ordinance Amendment and Town Center Specific Plan, as discussed in more detail in Chapter III, Project Description).

From a land use and planning policy perspective, the proposed General Plan amendment would have two related effects: 1) it would allow for religious assembly and related uses to be developed on the project site and 2) it would allow for such uses to be developed throughout areas designated “Town Center Commercial” in the Specific Plan. The introduction of religious uses into the Town Center could change the land use character of downtown Clayton. The neighborhood is currently characterized by a predominance of commercial uses, and commercial uses in the Town Center are a preferred land use, according to Policy 4b in the Land Use Element and Policy 11a in the Community Design Element. Other uses, such as residential and office uses, are generally limited to the upper floors of multi-story buildings.

The Town Center Specific Plan was amended in 2008 to prohibit the development of assembly uses (including religious assembly uses) in the area. This amendment was based on the premise that assembly uses utilize space that would otherwise be available to retail uses, and that they do not attract pedestrian activity or generate sales tax revenue in the manner of retail uses.

Furthermore, City staff in the past have concluded that even temporary religious assembly uses are inappropriate in the Town Center, based on the policy direction of the Town Center Specific Plan. In a May 29, 2007 Staff Report to the Planning Commission, City staff recommended against approval of a Use Permit to allow assembly worship services on a temporary basis on Saturday evenings from June 23 to September 1, 2007 at Clayton Community Church’s existing one-story building. In recommending against granting of the Use Permit, staff concluded that assembly worship services in the Town Center would not be consistent with the Town Center Specific Plan, specifically the focus of the Specific Plan on the development of retail uses:

With the development of Longs Drugs and The Grove, the prospective opening of Moresi’s Chop House steak restaurant, the re-opening of the Village Market, and the recruitment of new retail tenants to the Clayton Oaks commercial building and Village Market deli space, the Town Center is approaching critical phase for new investors. The proposed assembly worship services may provide some short-term benefits for selected food establishments. However, these benefits would come at the long-term cost by discouraging investment in the Town Center by other commercial property owners and retail tenants. As a result, staff concludes that the temporary location of an assembly worship

service in the applicant's commercial office building would be a detriment to the retention of existing retail tenants and recruitment of new retail tenants in the Town Center.

A draft economic and fiscal evaluation of the proposed project conducted by Bay Area Economics (BAE) also concluded that the project could hinder the future economic viability of the Town Center as a retail center.⁵ BAE identified the following ways in which the proposed project could have a neutral to adverse effect on the physical development of the Town Center:

- *Competition for Parking.* BAE concludes that, since most of the non-religious special events associated with the project would occur on weekend evenings (considered a peak period for Town Center businesses), the project could compromise the availability of parking relied on by local businesses. This reduced availability of parking could adversely affect downtown businesses, which compete with suburban businesses, many of which offer plentiful free parking. According to the BAE report: "It is important to note that although traditional downtown areas like the Clayton Town Center are unique within the marketplace, they still compete on some level with other more suburban shopping center(s) where parking is typically in great supply and optimized for the convenience of shoppers. Merchants in traditional downtown areas often connect difficulty in competing with suburban shopping centers with customers' concerns regarding parking availability and convenience; thus having an adequate and convenient supply of parking in the Town Center area will be critical to supporting efforts to develop the Town Center Specific Plan to its full potential. At the same time, if there is a perception among merchants and restaurants that there is a perpetual parking problem that impacts peak shopping periods, then it will be more difficult for the City to attract additional tenants to the area."
- *Pedestrian Activity.* BAE concludes that, while the proposed project would likely generate some pedestrian activity, "(t)he influx of church parishioners should not be viewed as an economic engine for the downtown, and is unlikely to spur a burst in leasing activity and rental sales." However, BAE also noted that the commercial space proposed as part of the project "would likely be beneficial in terms of helping to create a critical mass of commercial activity in the Town Center and generating synergy with other downtown commercial establishments," if suitable commercial tenants occupy the space.
- *Loss of Potential Parking Subsidy.* BAE concludes that the future development of underutilized parcels other than the project site would allow for sufficient commercial space in the Town Center such that locally- and regionally-driven demand for such commercial space would be met. However, because the proposed project would utilize such a large proportion of available public parking during peak periods, the project could compromise the ability of the City to use an existing parking waiver to encourage investment in the Town Center. As described in Chapter III, Project Description, Schedule 17.37.030D of the Municipal Code (Reduction in Required Parking and Loading Spaces During the Waiver Period) allows the City to waive the need for all or a portion of off-street parking that would typically be required for certain retail, office, and personal service uses in the Town Center. As described by BAE, "The Parking Waiver is a public asset that is used to subsidize desirable development; if the Council grants the parking entitlements requested by the applicant, it will effectively be transferring a significant portion of that subsidy to a single entity that consists in large part of uses not currently prioritized in the [Town Center] Specific Plan."

⁵ Bay Area Economics, 2011. *Draft Economic/Fiscal Evaluation of the Clayton Community Church Development Proposal*. March 28.

- *Loss of High-Profile Site for Commercial Development.* BAE notes that the project site poses constraints to successful development with commercial uses, including the elevation differential between Clayton Road and the site, visibility constraints posed by landscaping and signage at the Oak Street entrance to Main Street, and the fact that the site is “not located on a particularly dynamic” side of Main Street. However, BAE also concludes that “(t)here are no comparable opportunities for this scale of retail development on a single parcel elsewhere in the Town Center,” and the site represents “perhaps the most prominent site in the Town Center.” With development of the proposed project, the site could not be used for “a medium-sized retail development (up to approximately 20,000 to 25,000 square feet of ground floor space if provided with full parking on-site; larger if parking waiver granted).” Therefore, with implementation of the proposed project, the City would lose the opportunity to develop the site fully with commercial uses, as envisioned in the General Plan and Town Center Specific Plan.
- *Realization of Town Center Specific Plan Goals.* BAE concludes that the project could benefit the Town Center by drawing additional visitors to downtown Clayton and promoting the Town Center as a vibrant commercial district to Clayton Community Church’s congregation, approximately half of which lives outside the City. In addition, the project would contribute 7,957 square feet of new retail space to the Town Center. However, use of the public parking supply as part of the proposed project (if not mitigated) “would undermine other efforts to revitalize downtown Clayton.”

Therefore, the expansion of religious uses into areas designated “Town Center Commercial” would conflict with the policy impetus of the General Plan (and, by extension, the Town Center Specific Plan), which seek to ensure that the Town Center will be predominantly commercial in nature. Only approximately 19 percent of the total interior space developed as part of the project would be designated for retail uses (the remaining 81 percent of uses would be sanctuary and community uses, along with accessory administrative/office uses). In addition, the proposed project would not contribute to the establishment of the Town Center as an active retail center to the extent that a purely commercial project would, and could, hinder future development of retail uses by nature of the location of the project on Main Street and the disproportionate use of public parking.

Please refer to Table IV.A-1 for a summary of the consistency of the project with specific planning-related policies in the Land Use, Community Design, and Open Space/Conservation elements of the General Plan. In general, the proposed project would be consistent with specific applicable General Plan policies governing the physical development of the site. The project would preserve 12 of the 15 oak trees on the site, would set aside approximately 55 percent of the site as open space, would introduce additional pedestrian activity to downtown, and would integrate the existing pedestrian pathway along Mitchell Creek into the site’s internal circulation system. However, because the proposed project would be inconsistent with the overarching policy impetus of the General Plan and this inconsistency could result in physical environmental impacts associated with parking supply and the future viability of the Town Center as a commercial hub, the project would result in a significant policy-related environmental impact.

Zoning Ordinance. As part of the project, the portion of the project site zoned Limited Commercial would be rezoned to Planned Development so that the zone of the parcels comprising the project site would be consistent. Undertaking a rezoning such that the entire site would be Planned Development would be consistent with the intent of the Planned Development Ordinance in that it would allow for the site to be planned in a comprehensive way, with flexibility in the land use controls

that would be otherwise imposed as part of the Limited Commercial zone. Because the project site is in a prominent location at the western entrance to downtown Clayton, would result in a large-scale development in the context of Clayton, and would result in a mixture of religious assembly, office, community, retail, and open space, the Planned Development designation is appropriate. A Development Plan would ultimately be adopted for the project that would establish standards relating to building coverage, landscaping, parking, design, and lighting. Therefore, the rezoning of the site to Planned Development would be considered appropriate and would not result in adverse impacts.

The text of Section 17.37.030 of the Zoning Ordinance would also be amended as part of the project to allow for reduced parking requirements on the project site. Please refer to Section IV.B, Transportation, Circulation and Parking, for a discussion of the impacts of this proposed amendment on the parking supply in and around downtown Clayton. As discussed in that section, this amendment would result in a shortage of parking such that a significant environmental impact would result.

The project would also include a text amendment to Section 17.060.030 to permit the development of religious assembly uses under the Town Center Commercial land use designation of the Town Center Specific Plan. As discussed above, under “General Plan,” this amendment would conflict with the policy thrust of City planning documents (which promote the Town Center as a primarily commercial area), and this conflict would result in physical environmental impacts, including impacts associated with inadequate parking supply and the future viability of the Town Center as a commercial district.

Town Center Specific Plan. As part of the project, the Town Center Specific Plan would be amended to allow the development of religious assembly uses, remove the former Pioneer Inn building from the list of historic resources in the City, and establish the site as a location for a “Landmark Building Site” instead of “The New City Hall Site.” Please refer to the discussion under “General Plan,” above, regarding the policy conflict associated with the development of a project containing primarily religious assembly uses (and the conclusion that this policy conflict would result in a significant environmental impact).

The impacts associated with the proposed delisting (and demolition) of the former Pioneer Inn building are discussed in Section IV.F, Cultural Resources. As discussed in that section, the former Pioneer Inn building is not considered a historic resource pursuant to CEQA and is not eligible for listing on the National Register of Historic Places or the State Register of Historic Resources. Therefore, the proposed delisting of the building (and ultimate demolition) would not result in a significant impact to historic resources.

The designation of the project site as a location for a landmark building (as opposed to a new City Hall site) would not have adverse environmental effects. In the 1990s, the City restored the DeMartini Winery (constructed in 1885) for use as permanent City Hall. Therefore, the City has no plans to build a new City Hall on the project site, and the development of an alternate project on the site would not represent a policy conflict. The site, which is highly visible at the western approach into downtown, is an appropriate location for a “landmark building.” The design guidelines that would correspond to the “Landmark Building Site” would require the building to be designed in a way that would establish the design theme for the Town Center and announce entry into the district. Parking would be required to be located behind the Main Street buildings, and the pedestrian pathway along Mitchell Creek would be incorporated into the internal circulation plan for the site. This proposed design guidance is consistent with the design-related policies in the Specific Plan (which are listed and discussed in Table IV.A-1).

Conclusion of Consistency with Local Plans and Policies. Please refer to Table IV.A-1 for a summary of the consistency of the project with specific planning-related policies in the General Plan and Specific Plan that pertain to the physical development of the site. The project would set aside 55 percent of the site as open space, and would preserve 65 percent of the mature trees on the site (including 12 of the 15 oak trees). The area closest to Mitchell Creek in the far western portion of the site would be designated open space; therefore, the project would not intrude on the Mitchell Creek corridor. In addition, the project would integrate the existing creekside pathway that connects the municipal buildings north of the site to the Town Center. Therefore, the project would be consistent with Municipal Services Policies 1 and 2, and Urban Design Policies 2a, 2d, 4a, 4e, 4f, and 4g. However, as described above, the project would conflict with the designation of the Town Center as a primarily commercial area and this conflict would result in a substantial adverse physical impact associated with the area's parking supply and the future viability of the Town Center as a commercial hub. Although the project would expand downtown's supply of retail space (including ground floor retail space adjacent to Main Street located in multi-story buildings) and would contribute a mix of uses, the project on the whole could hinder the future commercial development of the Town Center, which is considered a significant physical environmental impact.

However, the provision of an adequate supply of parking in the Town Center would mitigate this impact to a less-than-significant level. The establishment of an area-wide parking management plan would ensure that the viability of existing businesses in the Town Center would not be substantially adversely affected by increased competition for parking associated with project-related activities and would help ensure that potential future development is not discouraged by the perception of inadequate parking. Although the project would utilize a high-visibility site on Main Street, the availability of sufficient parking in downtown Clayton would allow for the continuation of the City's parking waiver program under Schedule 17.37.030D of the Municipal Code, which could attract additional commercial development in the Town Center. As described above, sufficient development sites exist in downtown Clayton to allow the City to meet local and regional demand for commercial uses. Implementation of the following mitigation measure would thus reduce Impact LU-1 to a less-than-significant level:

Mitigation Measure LU-1: Implement Mitigation Measure TRANS-1. (LTS)

B. TRANSPORTATION, CIRCULATION, AND PARKING

This section discusses the potential transportation-related impacts associated with the proposed Clayton Community Church Project. This analysis is consistent with the requirements of the City of Clayton (City) General Plan Circulation Element and Growth Management Element, Contra Costa Transportation Authority (CCTA) Technical Procedures, and applicable provisions of the California Environmental Quality Act (CEQA).

1. Setting

a. Existing Roadways. The following discussion provides an overview of the regional and local circulation system in the vicinity of the project site (study area). This system is illustrated in Figure IV.B-1.

- *Mitchell Canyon Road:* Mitchell Canyon Road provides north-south travel west of the project site. Mitchell Canyon Road is a two-lane roadway and is classified as a Collector Street in the City's General Plan Circulation Element.
- *Clayton Road:* Clayton Road is the main roadway providing east-west travel through the study area. Clayton Road is a four-lane roadway and is classified as an Arterial Street in the City's General Plan Circulation Element. Clayton Road borders the project site to the north.
- *Marsh Creek Road:* Marsh Creek Road provides north-south travel east of the project site. Marsh Creek Road is a two-lane roadway and is classified as an Arterial Street in the City's General Plan Circulation Element.
- *Main Street:* Main Street provides east-west travel from Clayton Road to Marsh Creek Road through the downtown area. Main Street is a two-lane local street providing direct access to the project site, and borders the site to the south.
- *Center Street–Oakhurst Drive:* Center Street–Oakhurst Drive provides north-south and east-west travel east and south of the project site. South of Clayton Road, this roadway is known as Center Street, while north of Clayton Road, it is named Oakhurst Drive. Center Street–Oakhurst Drive is a four-lane roadway and is classified as an Arterial Street in the City's General Plan Circulation Element.

b. Study Area. The study area comprises intersections in the vicinity of the project site that provide access to the downtown area and have the potential to experience a measurable increase in traffic volumes due to the project. The intersections were selected in consultation with City staff. The study area includes the following four intersections within the area generally bounded by Mitchell Canyon Road on the west, Clayton Road on the north, Center Street–Oakhurst Drive on the east, and Main Street on the south. The intersection locations, which are shown in Figure IV.B-1, were selected to represent locations that could be adversely affected by the project.

1. Mitchell Canyon Road/Clayton Road
2. Marsh Creek Road/Clayton Road
3. Marsh Creek Road/Main Street
4. Center Street–Oakhurst Drive/Clayton Road

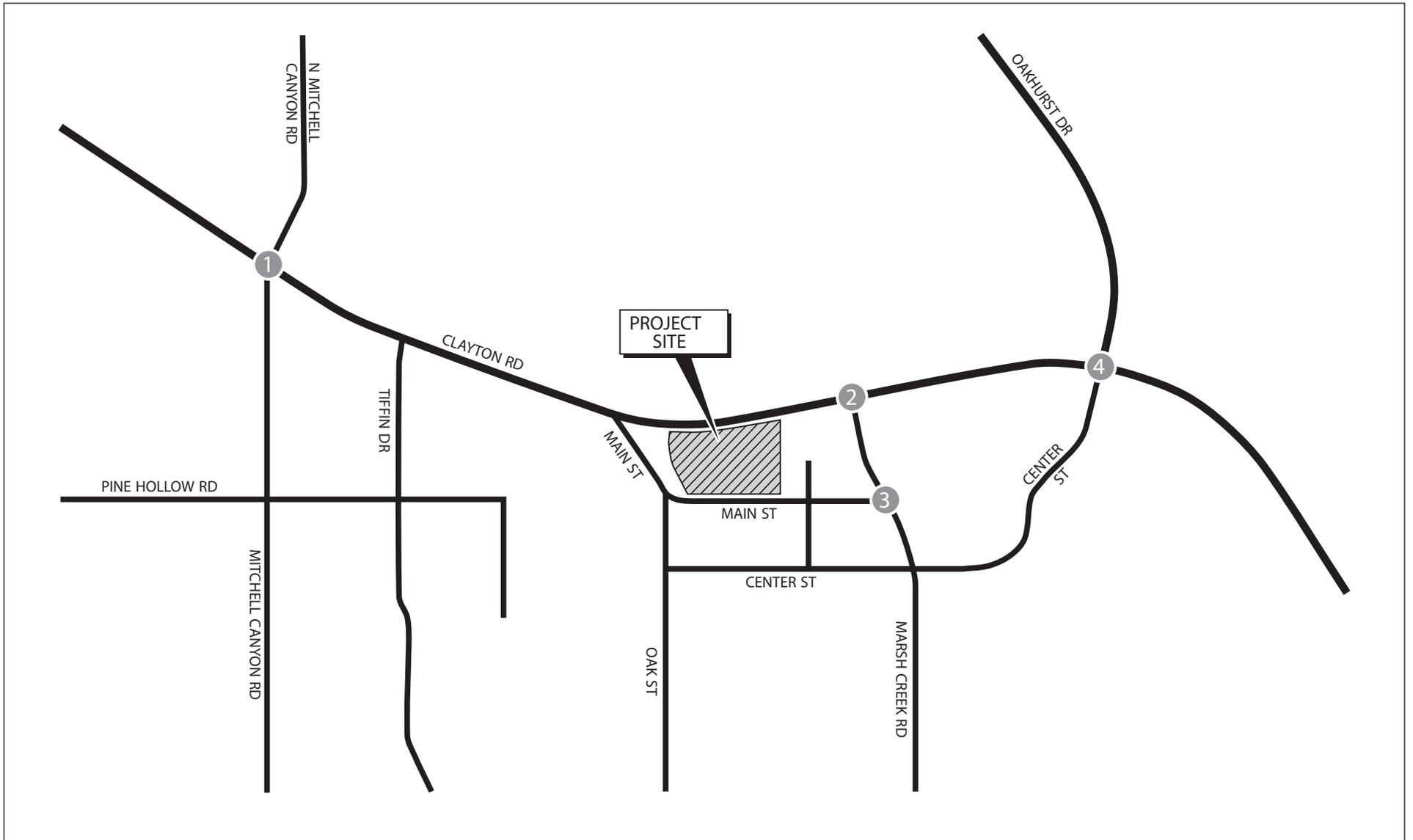


FIGURE IV.B-1

LSA



① Study Area Intersection

NOT TO SCALE

SOURCE: LSA ASSOCIATES, INC., 2010.

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Clayton Community Church Project EIR
 Project Location and Study Area Intersections

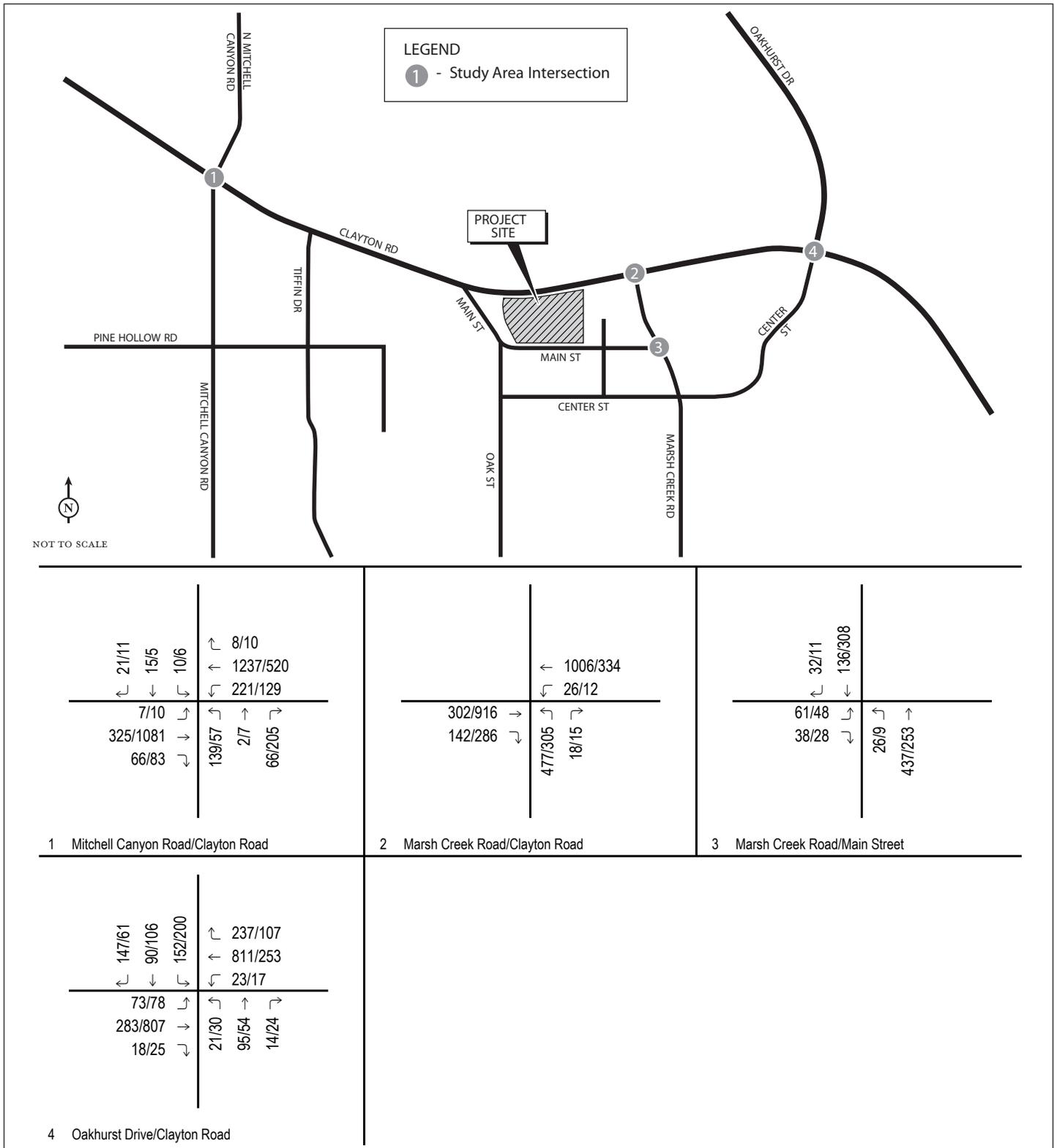
c. Existing Traffic Conditions. Existing traffic counts were collected at study area intersections on September 16 and 19, 2010. Appendix B of this Draft EIR provides existing Peak Hour count data (as well as other transportation analysis-related data). The counts were collected while local schools were in session. The existing Peak Hour traffic volumes at the study area intersections are illustrated in Figure IV.B-2. Table IV.B-1 summarizes the results of the existing weekday AM Peak Hour, weekday PM Peak Hour, and Sunday Peak Hour level of service (LOS) analysis for the four study area intersections. The existing LOS calculation worksheets are provided in Appendix B. As this table indicates, all study area intersections operate at satisfactory LOS B or better in the existing condition. For a detailed explanation of LOS designations, refer to Subsection 3, Methodology.

d. Cumulative Traffic Conditions. Traffic forecasts of cumulative conditions (without the project) were based on the addition of traffic from approved and reasonably foreseeable projects (cumulative projects). In this way, the transportation analysis, with the exception of the Existing and Existing Plus Project analyses, accounts for proposed land use projects that are expected to occur around the time that the Clayton Community Church is constructed and begins to hold worship services and other activities. The cumulative analysis is used to determine potential project impacts and satisfies the requirements of *CEQA Guidelines* Section 15130.

A list of cumulative projects was obtained from the Community Development Department.¹ The trip generation and distribution for each cumulative project are provided in Appendix B. The cumulative Peak Hour traffic volumes at the study area intersections are illustrated in Figure IV.B-3. Table IV.B-2 summarizes the results of the cumulative weekday AM Peak Hour, weekday PM Peak Hour, and Sunday Peak Hour LOS analyses for the four study area intersections. The LOS worksheets are provided in Appendix B. As Table IV.B-2 indicates, all study area intersections are expected to continue to operate at satisfactory LOS B or better during the peak hours in the cumulative baseline condition.

e. Pedestrian/Bicycle and Transit Facilities. Pedestrian access to the project site is currently provided via sidewalks along Main Street and all adjacent local streets in downtown Clayton. A pedestrian/bicycle pathway located west of the project site along the Mitchell Creek greenbelt provides circulation through the community (i.e., to/from the Contra Costa Library and municipal complex north of Clayton Road, the project site south of Clayton Road, and Clayton Park and the residences west of Oak Street). A network of local, commuter, and student bus routes throughout Contra Costa County and within the City (along Clayton Road and Marsh Creek Road) is provided by the County Connection public transit system.

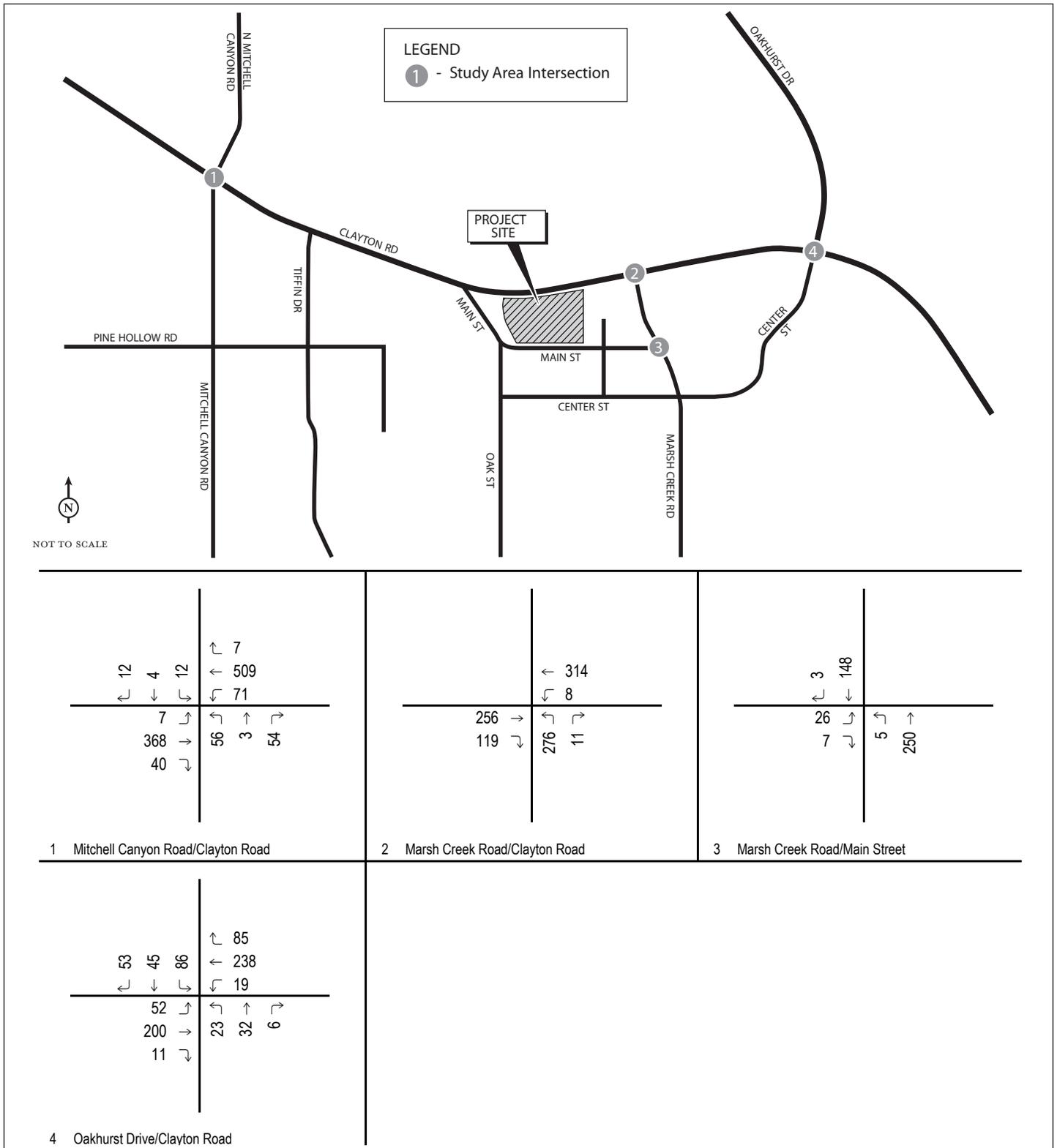
¹ Four cumulative projects have been included in the cumulative scenario: Creekside Terrace at the northwest corner of Oak Street/High Street (7,200 square feet (sf) of retail space and seven single-family homes); Silver Oak Estates on the south side of Center Street–Oakhurst Drive–Concord Boulevard (nine single-family homes and 55 multifamily units); Diablo Pointe at the southeast corner of Regency Drive/Rialto Drive (24 single-family homes); and Oak Creek Canyon north of Diablo Parkway/Marsh Creek Road (five single-family homes).



LSA

FIGURE IV.B-2a

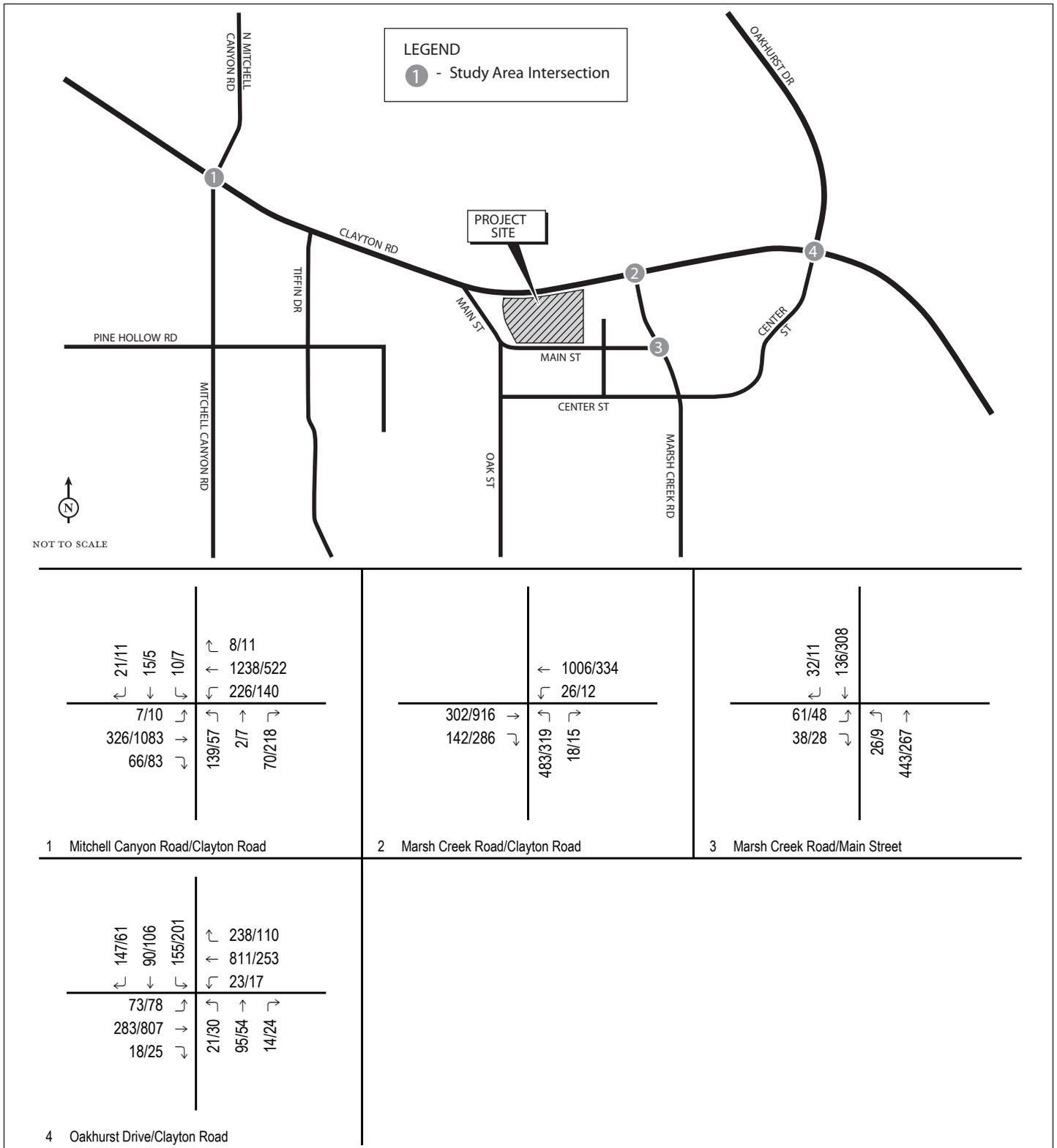
123/456 AM/PM Volumes



LSA

FIGURE IV.B-2b

123/456 Sunday Mid-day Volumes



LSA

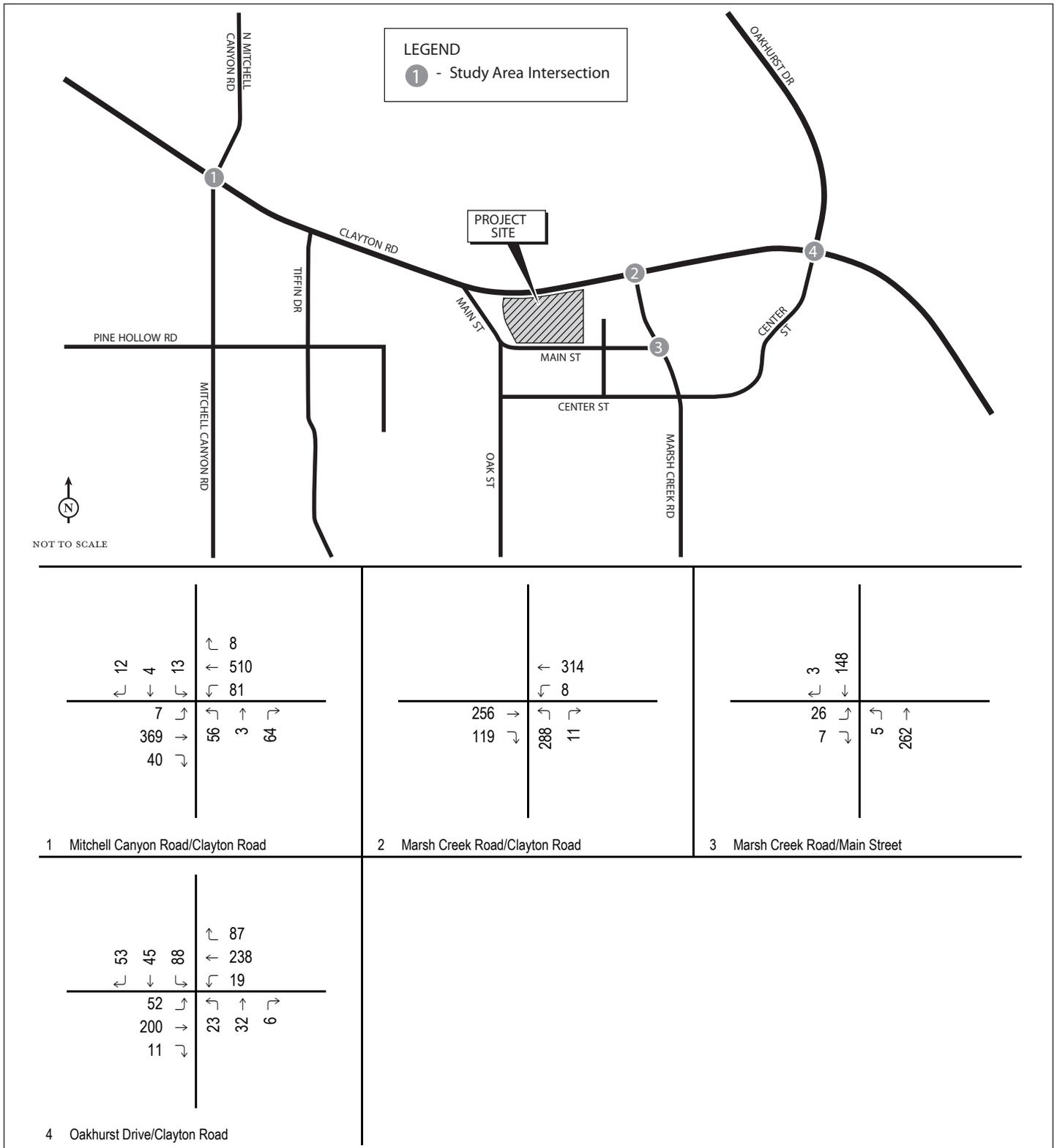
FIGURE IV.B-3a

123/456 AM/PM Volumes

SOURCES: LSA ASSOCIATES, INC. .2010.

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Clayton Community Church Project EIR
 Cumulative Peak Hour Volumes



LSA

FIGURE IV.B-3b

123/456 Sunday Mid-day Volumes

SOURCES: LSA ASSOCIATES, INC., 2010.

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Clayton Community Church Project EIR
 Cumulative Peak Hour Volumes

Table IV.B-1: Existing Level of Service Summary

Intersection	Traffic Control	Baseline					
		Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Peak Hour	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Mitchell Canyon Road/Clayton Road	Signal	0.45	A	0.54	A	0.19	A
2. Marsh Creek Road/Clayton Road	Signal	0.45	A	0.37	A	0.18	A
3. Marsh Creek Road/Main Street	AWSC	12.5 sec	B	10.5 sec	B	9.2 sec	A
4. Oakhurst Drive/Clayton Road	Signal	0.40	A	0.39	A	0.16	A

Notes:

V/C = Volume-to-Capacity ratio

AWSC = All-Way Stop-Controlled

For AWSC intersections, delay (in seconds [sec]) is the average control delay for the whole intersection.

For a detailed explanation of LOS designations, refer to Subsection 3, Methodology.

Source: LSA Associates, Inc., 2010.

Table IV.B-2: Cumulative Level of Service Summary

Intersection	Traffic Control	Baseline					
		Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Peak Hour	
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS
1. Mitchell Canyon Road/Clayton Road	Signal	0.45	A	0.55	A	0.21	A
2. Marsh Creek Road/Clayton Road	Signal	0.45	A	0.38	A	0.18	A
3. Marsh Creek Road/Main Street	AWSC	12.7 sec	B	10.6 sec	B	9.3 sec	A
4. Oakhurst Drive/Clayton Road	Signal	0.40	A	0.39	A	0.16	A

Notes:

V/C = Volume-to-Capacity ratio

AWSC = All-Way Stop-Controlled

For AWSC intersections, delay (in seconds [sec]) is the average control delay for the whole intersection.

For a detailed explanation of LOS designations, refer to Subsection 3, Methodology.

Source: LSA Associates, Inc., 2010.

2. Regulatory Setting

a. City General Plan Circulation Element and Growth Management Element. The City’s roadway classifications and criteria for LOS standards for intersections in the study area are set forth in the City of Clayton General Plan. These criteria are discussed in Subsection 4, Criteria of Significance.

b. City Zoning Ordinance. The parking requirements by land use types are provided in the City Zoning Ordinance.

c. CCTA Technical Procedures. The Technical Procedures provide guidance for application of County LOS standards to non-regional routes of significance (i.e., all public streets in the study area that are not designated as regional routes of significance in the Congestion Management Plan [CMP]). The Technical Procedures outline the methodology and procedures to ensure Countywide consistency in the analysis of traffic impacts.

d. County of Contra Costa (County) CMP. The CMP, which is prepared by the CCTA, is the relevant source document with a Countywide perspective and technical information on transportation.

It contains goals and objectives for State highways, regional routes of significance, alternative transportation modes and strategies for the transportation system and demand management, and policies for integrating land use planning and transportation planning. There are no regional routes of significance in the study area.

3. Methodology

a. Intersection Level of Service. The Traffix software Version 8.0 R1 was used to determine the study area intersection LOS based on the Circular 212 “Critical Movement Analysis” (CMA) methodology for signalized intersections and the Highway Capacity Manual 2000 (HCM) methodology for unsignalized intersections.

Consistent with City and CCTA requirements, the CMA methodology compares the amount of traffic an intersection is able to process (capacity) to the volume of traffic during peak hours (volume). The weekday AM and PM Peak Hours are defined as the highest 1 hour of traffic volume experienced between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m. The Sunday Peak Hour is defined as the highest 1 hour of traffic volume experienced between 11:00 a.m. and 1:00 p.m. It should be noted that the observed Sunday Peak Hour of the Clayton Community Church (under existing conditions) is 10:15 a.m. to 11:15 a.m. Although the start of the peak hour for Sunday church services is 45 minutes before the start of the typical Sunday Peak Hour, the traffic volumes associated with the Church’s peak hour activities have been applied to the Sunday Peak Hour intersection counts for purposes of the CMA analysis. The resulting volume-to-capacity ratio (v/c) is expressed in terms of LOS, where LOS A represents free-flow activity and LOS F represents over-capacity operation. LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. A description of each LOS grade is described below.

LOS Description

- A No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
- B This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
- C This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
- D This level encompasses a zone of increasing restriction, approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
- E Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.

F This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, speed can drop to zero.

The relationship between LOS and the v/c ratio is as follows:

Level of Service	Volume to Capacity (CMA Methodology)	Level of Service	Volume-to-Capacity (CMA Methodology)
A	≤0.600	D	>0.800 and ≤0.900
B	>0.600 and ≤0.700	E	>0.900 and ≤1.000
C	>0.700 and ≤0.800	F	>1.000

CMA = Critical Movement Analysis

The HCM methodology has been used to determine the LOS of unsignalized intersections. For the HCM methodology, the LOS is presented in terms of total intersection delay and approach delay of the major and minor streets (in seconds per vehicle). The relationship of delay and LOS at unsignalized intersections is summarized below.

Level of Service	Unsignalized Intersection Delay (seconds) per Vehicle	Level of Service	Unsignalized Intersection Delay (seconds) per Vehicle
A	≤10.0	D	>25.0 and ≤35.0
B	>10.0 and ≤15.0	E	>35.0 and ≤50.0
C	>15.0 and ≤25.0	F	>50.0

According to the City of Clayton General Plan, the project site and study area are located in a suburban area. The goal of the City and County is to maintain low LOS D on all intersections (i.e., v/c ratio between 0.80 and 0.84) in suburban land use areas, and projects must be designed to maintain low LOS D. Mitigation is required for any intersection where project traffic causes the intersection to deteriorate from low LOS D (or better) to high LOS D (i.e., v/c ratio between 0.85 and 0.89) (or worse).

b. Project Trip Generation. The project would result in the demolition of the existing 6,800-square foot building on the site and construction of: a new 22,244-square-foot sanctuary/community building (with approximately 500 seats); two mixed-use buildings containing 7,957 square feet of retail space, 2,568 square feet of educational/community space, and 8,195 square feet of office uses; and a 1,200-square-foot teen center. The trip generation estimates for the retail use and the teen center were based on the trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation*, 8th Edition (2008), which is a standard series of guidelines used to calculate the trip generation of proposed development projects. Peak hour trips for the proposed office and sanctuary uses were generated based on the proposed operational schedule and maximum expected attendance (i.e., based on the assumption that the church office would not be open on Sundays and a total of 500 church members would attend services on Sundays), and verified by actual trip generation surveys conducted before and after existing Sunday services.

The Clayton Community Church collected attendance data for each of the worship services held at Diablo View Middle School on Sunday, October 10, 2010 (provided in Appendix B). The average Sunday attendance on this day was 253 people (i.e., 242 people attended the 9:00 a.m. service and 263 people attended the 10:45 a.m. service). The peak 1-hour turnover period occurs between the two services as parishioners depart from the 9:00 a.m. service while others arrive for the 10:45 a.m. service. During this time, 182 vehicles (92 inbound and 92 outbound trips) were observed. Taking into account the average number of persons at each service, the equivalent Sunday Peak Hour trip rate is 0.73 trip (50 percent inbound and 50 percent outbound) per person. The observed/surveyed trip rate of 0.73 is similar to the ITE trip rate of 0.61 trip per church seat.

The project trip generation is presented in Table IV.B-3. As shown in this table, the project is forecast to generate 104 new weekday AM Peak Hour trips, 235 new weekday PM Peak Hour trips, and 390 new Sunday Peak Hour trips.

c. Project Trip Distribution. Vehicle trips generated by the project were distributed throughout the study area based on the geographic distribution of existing parishioners, as provided by the Church. According to this data, approximately 38 percent of church members come from Clayton, 47 percent from Concord, 9 percent from Walnut Creek, 3 percent from Pleasant Hill, and 3 percent from Martinez. Project-generated traffic volumes were distributed to the adjacent street system accordingly. Figure IV.B-4 shows the project trip distribution for the proposed project as well as the resulting project trip assignment for the study area intersections. As shown in the figure, approximately 40 percent of the project trips are destined west via Clayton Road, 10 percent are destined east via Clayton Road, 20 percent are destined north via Mitchell Canyon Road and Center Street–Oakhurst Drive, and 30 percent are destined south via Mitchell Canyon Road, Oak Street, and Marsh Creek Road. Project trips were added to the Existing and Cumulative traffic volumes to determine the with-project traffic volumes and LOS.

Although it is recognized that off-site parking facilities, such as the Clayton Community Library and the Heritage Trail parking lots, would be utilized by church patrons, all project trips have been assigned to the project site. Assignment of some project trips to the Clayton Community Library and Heritage Trail site would only affect one intersection, March Creek Road/Clayton Road. The westbound left-turn movement volumes would be reduced and these trips would be added to the westbound through movement. In addition, eastbound right-turn volumes would be reduced. Because the westbound left-turn movement is a critical movement that contributes to the intersection delay, reduction of the number of vehicles utilizing this movement would result in better LOS at the intersection. Furthermore (assuming the presence of a parking management plan), the utilization of off-site parking would reduce the number of vehicles circulating through the downtown area and would lessen congestion on local streets. As a result, the analysis conducted represents a conservative, reasonable worst-case scenario, as all project vehicles have been assigned to the project site, resulting in increased vehicle delays at the study area intersections.

Table IV.B-3: Project Trip Generation

Land Use	Size	Unit	Weekday AM Peak Hour			Weekday PM Peak Hour			Sunday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Trip Rates											
Teen Center ¹	1.000	TSF ⁵	0.99	0.63	1.62	0.54	0.91	1.45	0.83	0.65	1.48
Retail ¹	1.000	TSF	0.61	0.39	1.00	1.83	1.90	3.73	1.53	1.59	3.12
Office ²	1	person	1.00	0.00	1.00	0.00	1.00	1.00	--	--	--
Sanctuary (Weekday, AM and PM) ³	1	person	1.00	1.00	2.00	1.00	1.00	2.00	--	--	--
Sanctuary (Sunday) ⁴	1	person	--	--	--	--	--	--	0.36	0.36	0.73
Trip Generation											
Teen Center ⁶	1.200	TSF	1	1	2	1	1	2	1	1	2
Retail	7.957	TSF	5	3	8	15	15	30	12	13	25
Office	14	person	14	0	14	0	14	14	0	0	0
Sanctuary (Weekday AM)	40	person	40	40	80	0	0	0	0	0	0
Sanctuary (Weekday, PM)	95	person	0	0	0	95	95	190	0	0	0
Sanctuary (Sunday)	500	person	0	0	0	0	0	0	182	182	364
Total			60	44	104	110	125	235	195	195	390

Notes:

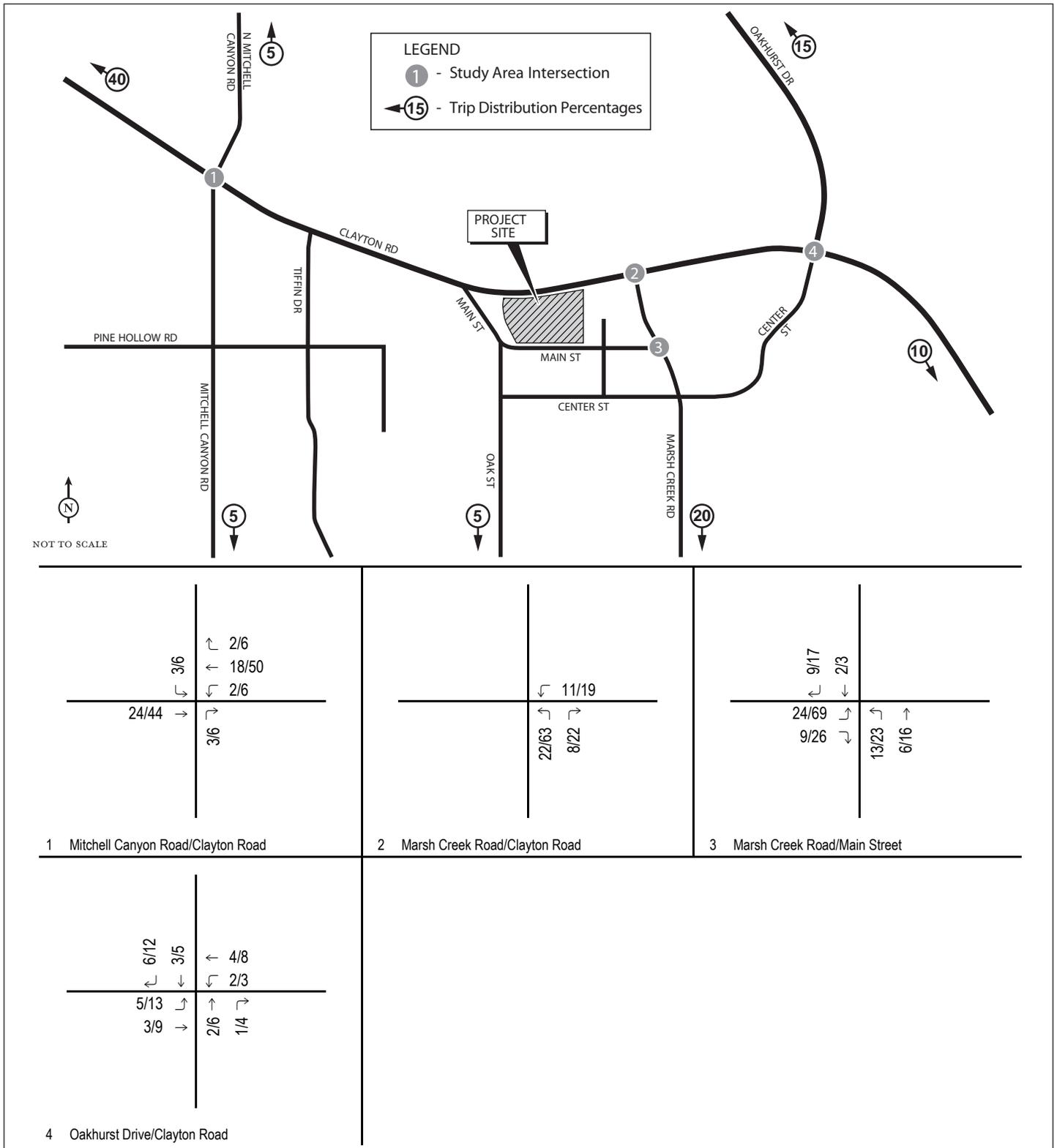
- ¹ Trip rates referenced from the Institute of Transportation Engineers *Trip Generation*, 8th Edition (2008). Land Use Code 495 - Recreational Community Center, Land Use Code 820 - Shopping Center.
- ² Trip rates based on proposed office schedule (i.e., Monday-Friday, 8:00 a.m. to 5:00 p.m.) and number of staff members (i.e., 14).
- ³ Trip rates based on proposed schedules and attendance (i.e., Bible Study in the AM Peak Hour; and Rehearsal, Leadership Council, Prayer Gathering, and Worship Team sessions in the PM Peak Hour).
- ⁴ Trip rates based on vehicle surveys conducted by National Data & Surveying Services and attendance numbers collected by Clayton Community Church on Sunday, October 10, 2010.
- ⁵ TSF = thousand square feet
- ⁶ According to the proposed schedule, activities for high school students would begin at 7:00 p.m. Therefore, a nominal number of trips would be generated by the teen center during peak hours.

Source: LSA Associates, Inc, 2010.

4. Impacts and Mitigation Measures

This subsection analyzes impacts related to transportation, circulation, and parking that could result from implementation of the proposed project. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this subsection presents the impacts associated with the proposed project.

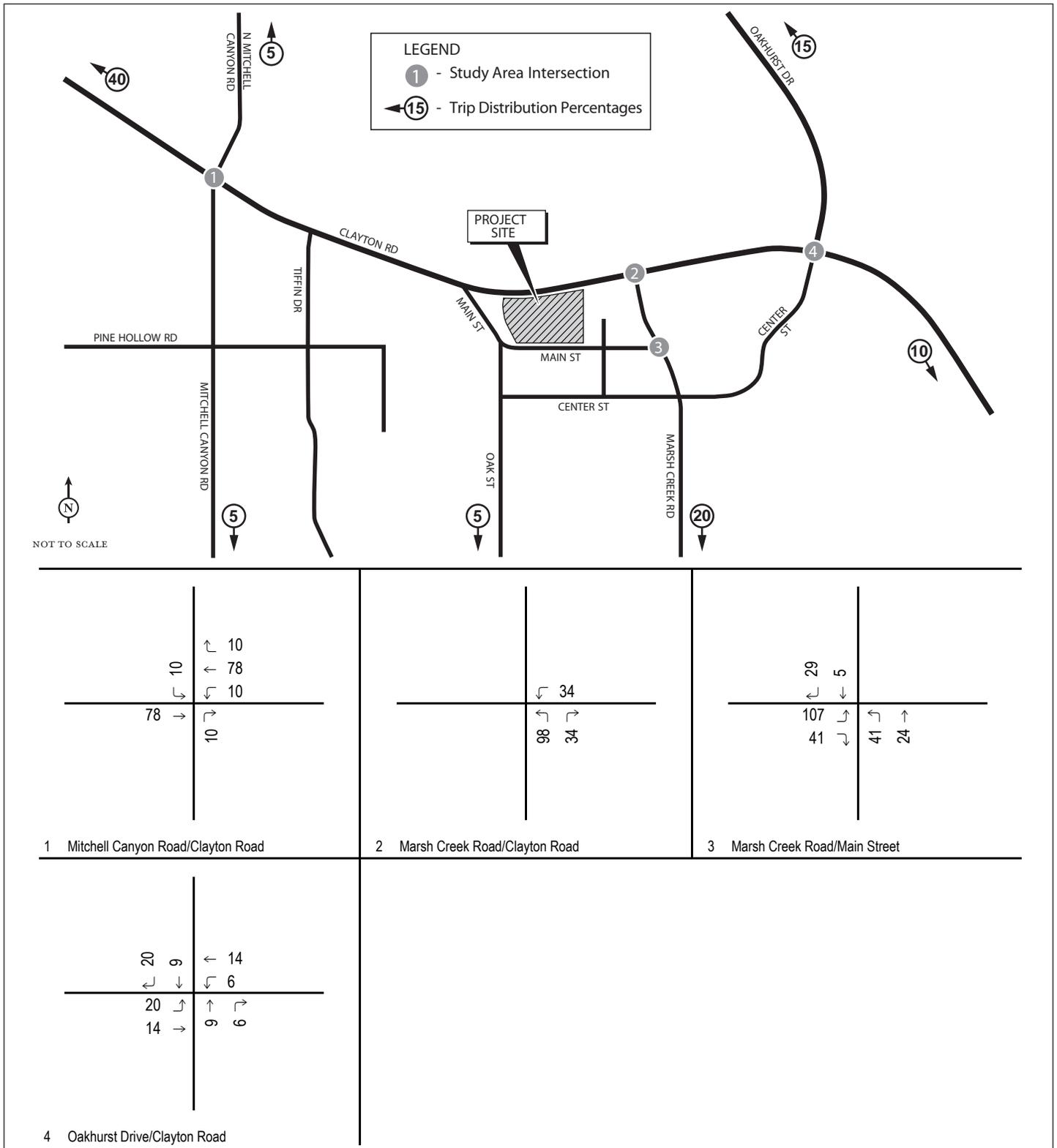
- a. **Criteria of Significance.** Implementation of the proposed project would have a significant effect on transportation, circulation, and parking if it would:



LSA

FIGURE IV.B-4a

123/456 AM/PM Volumes



LSA

FIGURE IV.B-4b

123/456 Sunday Mid-day Volumes

SOURCES: LSAASSOCIATES, INC. .2010.
 I:\CLY1001 Clayton Church\figures\Fig_IVB4b.ai (11/15/10)

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- 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.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.
- Result in inadequate parking capacity.

Specific criteria for determining whether the potential transportation impacts of a project are significant are set forth in the City General Plan and CCTA Technical Procedures. The criteria include LOS standards for intersections in the study area. A summary of these thresholds, which were used in this analysis to determine whether significant impacts would occur, is provided below.

As stated above, to determine the Peak Hour operations at the study area intersections, the CMA and HCM methodologies were used. As previously discussed, there are six LOS letter designations from A to F, with A being best and F indicating failure, where volumes exceed the capacity of the roadway system.

The proposed project would cause a significant impact at intersections if it causes an intersection operating at satisfactory low LOS D or better to operate at high LOS D or worse.

b. Less-Than-Significant Transportation, Circulation, and Parking Impacts. The following discussion describes the less-than-significant transportation-related impacts associated with implementation of the Clayton Community Church Project.

(1) Effectiveness of Transportation System. The following discussion describes the anticipated effectiveness of the transportation system with implementation of the proposed project, under existing and cumulative conditions.

Existing with Project Traffic Conditions. To demonstrate the effect that the project would have on the study area intersections in the Existing condition, an Existing with Project LOS analysis was prepared, assuming that the project would be developed and occupied as of the date of the traffic counts (September 2010). The analysis assumes that the project would add 104 weekday AM Peak Hour trips, 235 PM Peak Hour trips, and 390 Sunday Peak Hour trips to the current condition. Although it would be infeasible to develop the project in this time frame, standard transportation

analysis protocols under CEQA require that this analysis be conducted in order to disclose the project's potential impacts on existing conditions.

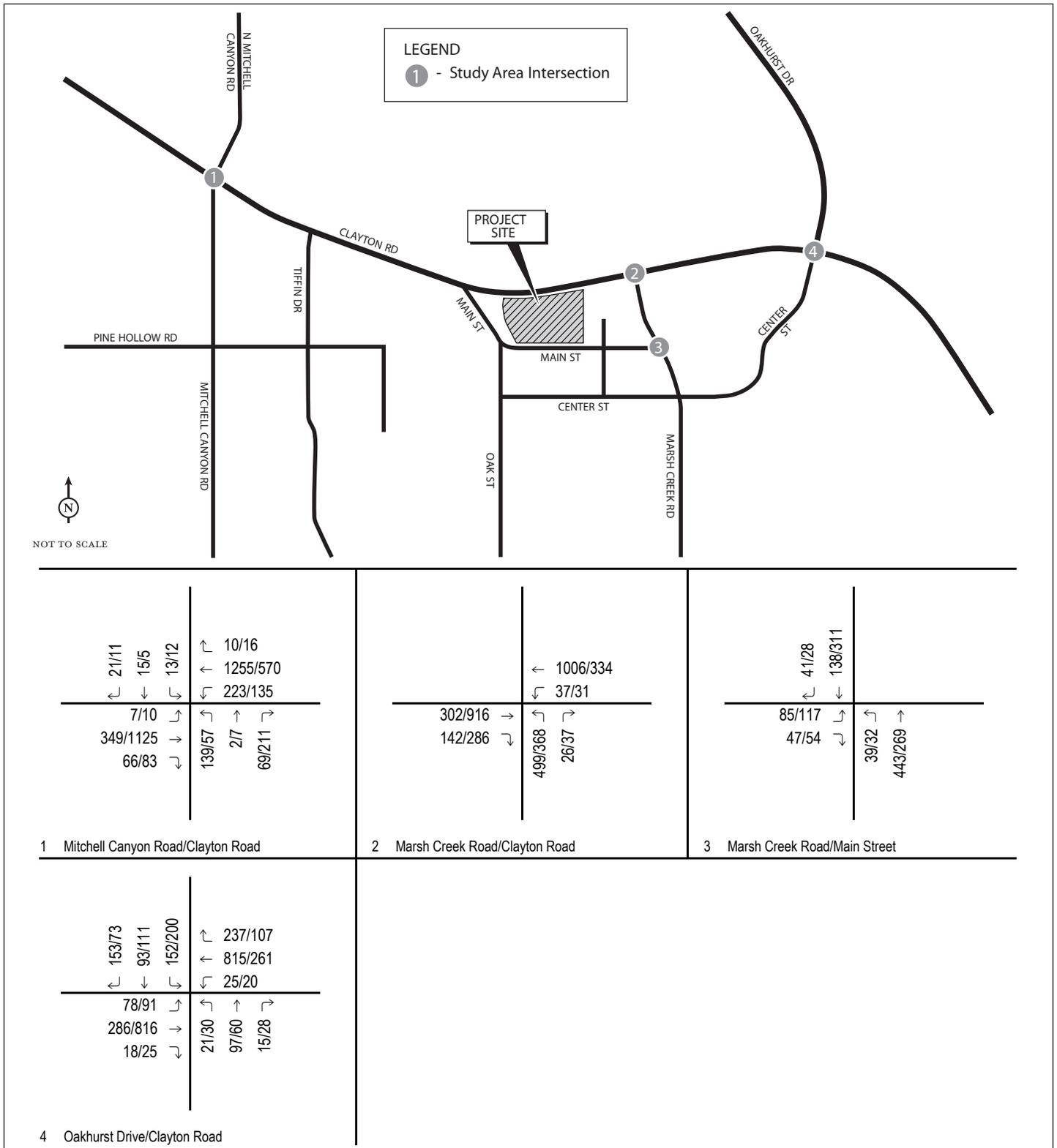
The Existing with Project Peak Hour traffic volumes are illustrated in Figure IV.B-5. A comparison of Existing and Existing with Project intersection LOS is provided in Table IV.B-4. The LOS worksheets are provided in Appendix B. As this table indicates, all study area intersections are forecast to operate at satisfactory LOS with implementation of the proposed project.

Access to, from, and around Downtown Clayton is provided via low-speed, local-serving, two-lane roadways. Although downtown intersections may experience short-term delays during turnover periods of church services, there are limited opportunities for roadway widening/improvements due to right-of-way constraints and the overall layout of the downtown area. Furthermore, the vehicle delay incurred by church members trying to locate available parking would not be a permanent condition. Parking for Church members would be available in several public parking locations (both off-site and directly adjacent to the church). Over time, church members would learn to proceed directly to parking areas that tend to have available spaces. Because, in general, the same people would visit the Church every week, parishioners would be expected to travel first to where parking is generally available and would not circulate throughout the downtown area for extended periods looking for parking.

Cumulative with Project Traffic Conditions. The Cumulative with Project Peak Hour traffic volumes are illustrated in Figure IV.B-6. A comparison of Cumulative and Cumulative with Project intersection LOS is provided in Table IV.B-5. The LOS worksheets are provided in Appendix B. As this table indicates, all study area intersections are forecast to operate at satisfactory LOS with implementation of the proposed project.

The proposed project would have a less-than-significant impact on applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system in the Existing with Project and the Cumulative with Project conditions, and no mitigation is required. There are no applicable plans, ordinances, or policies establishing measures of effectiveness for pedestrians, bicycles, or transit.

The Church hosts special events throughout the year (including concerts, community theatrical productions, weddings and funerals, Christmas and Easter services, and the yearly banquet and Soap Box Derby) which would attract significantly more people (up to 1,000 attendees) than a typical Sunday service. Therefore, these special events would generate more traffic than routine church activities associated with the proposed project and could exacerbate the parking shortfalls described below, which would be associated with typical church operations. However, traffic associated with special events (because it would occur only infrequently throughout the year) would not be considered "a substantial, or potentially substantial, adverse change in the environment" as defined in CEQA Section 21068. Nevertheless, Mitigation Measure TRANS-1, described below, would assist in reducing traffic and parking demand associated with special events.

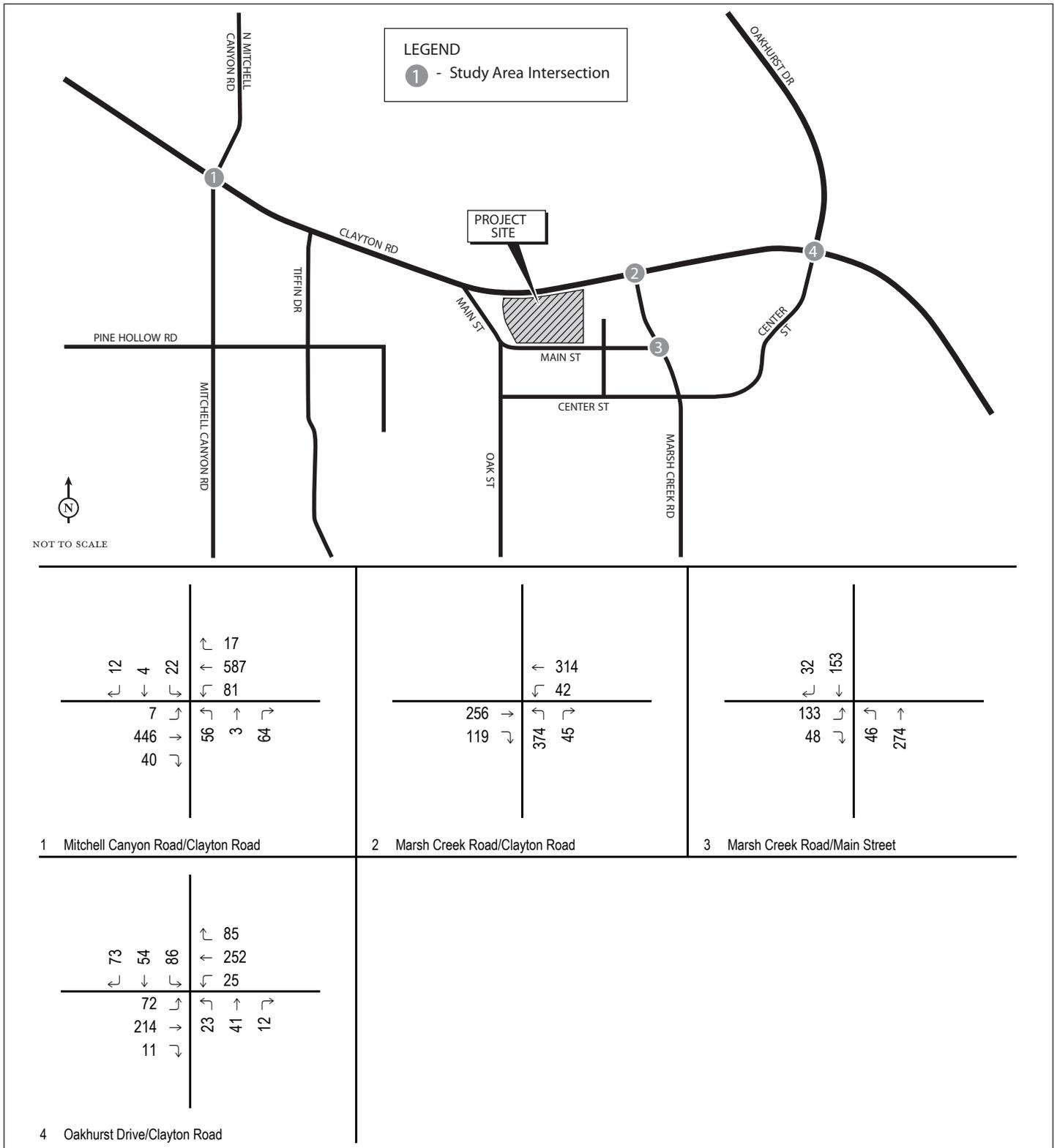


LSA

FIGURE IV.B-5a

123/456 AM/PM Volumes

SOURCES: LSAASSOCIATES, INC. .2010.
 I:\CLY1001 Clayton Church\figures\Fig_IVB5a.ai (11/12/10)



LSA

FIGURE IV.B-5b

123/456 Sunday Mid-day Volumes

Clayton Community Church Project EIR
 Existing Plus Project Peak Hour Volumes

SOURCES: LSAASSOCIATES, INC. .2010.

I:\CLY1001 Clayton Church\figures\Fig_IVB5b.ai (11/15/10)

Table IV.B-4: Existing with Project Level of Service Summary

Intersection	Traffic Control	Baseline						Plus Project						Peak Change Hour in V/C or Delay		
		Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Peak Hour		Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Peak Hour				
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	Weekday AM
1. Mitchell Canyon Road/ Clayton Road	Signal	0.45	A	0.54	A	0.19	A	0.45	A	0.56	A	0.23	A	0.00	0.02	0.04
2. Marsh Creek Road/ Clayton Road	Signal	0.45	A	0.37	A	0.18	A	0.45	A	0.40	A	0.22	A	0.00	0.03	0.04
3. Marsh Creek Road/ Main Street	AWSC	12.5 sec	B	10.5 sec	B	9.2 sec	A	13.0 sec	B	11.4 sec	B	10.3 sec	A	0.5 sec	0.9 sec	1.1 sec
4. Oakhurst Drive/ Clayton Road	Signal	0.40	A	0.39	A	0.16	A	0.41	A	0.39	A	0.18	A	0.01	0.00	0.02

Notes:

V/C = Volume-to-Capacity ratio

AWSC = All-Way Stop-Controlled

For AWSC intersections, delay (in seconds [sec]) is the average control delay for the whole intersection.

Source: LSA Associates, Inc., 2010.

Table IV.B-5: Cumulative with Project Level of Service Summary

Intersection	Traffic Control	Baseline						Plus Project						Peak Change Hour in V/C or Delay		
		Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Peak Hour		Weekday AM Peak Hour		Weekday PM Peak Hour		Sunday Peak Hour				
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	Weekday AM
1. Mitchell Canyon Road/ Clayton Road	Signal	0.45	A	0.55	A	0.21	A	0.45	A	0.57	A	0.24	A	0.00	0.02	0.03
2. Marsh Creek Road/ Clayton Road	Signal	0.45	A	0.38	A	0.18	A	0.45	A	0.41	A	0.22	A	0.00	0.03	0.04
3. Marsh Creek Road/ Main Street	AWSC	12.7 sec	B	10.6 sec	B	9.3 sec	A	13.1 sec	B	11.6 sec	B	10.4 sec	A	0.4 sec	1.0 sec	1.1 sec
4. Oakhurst Drive/ Clayton Road	Signal	0.40	A	0.39	A	0.16	A	0.41	A	0.39	A	0.18	A	0.01	0.00	0.02

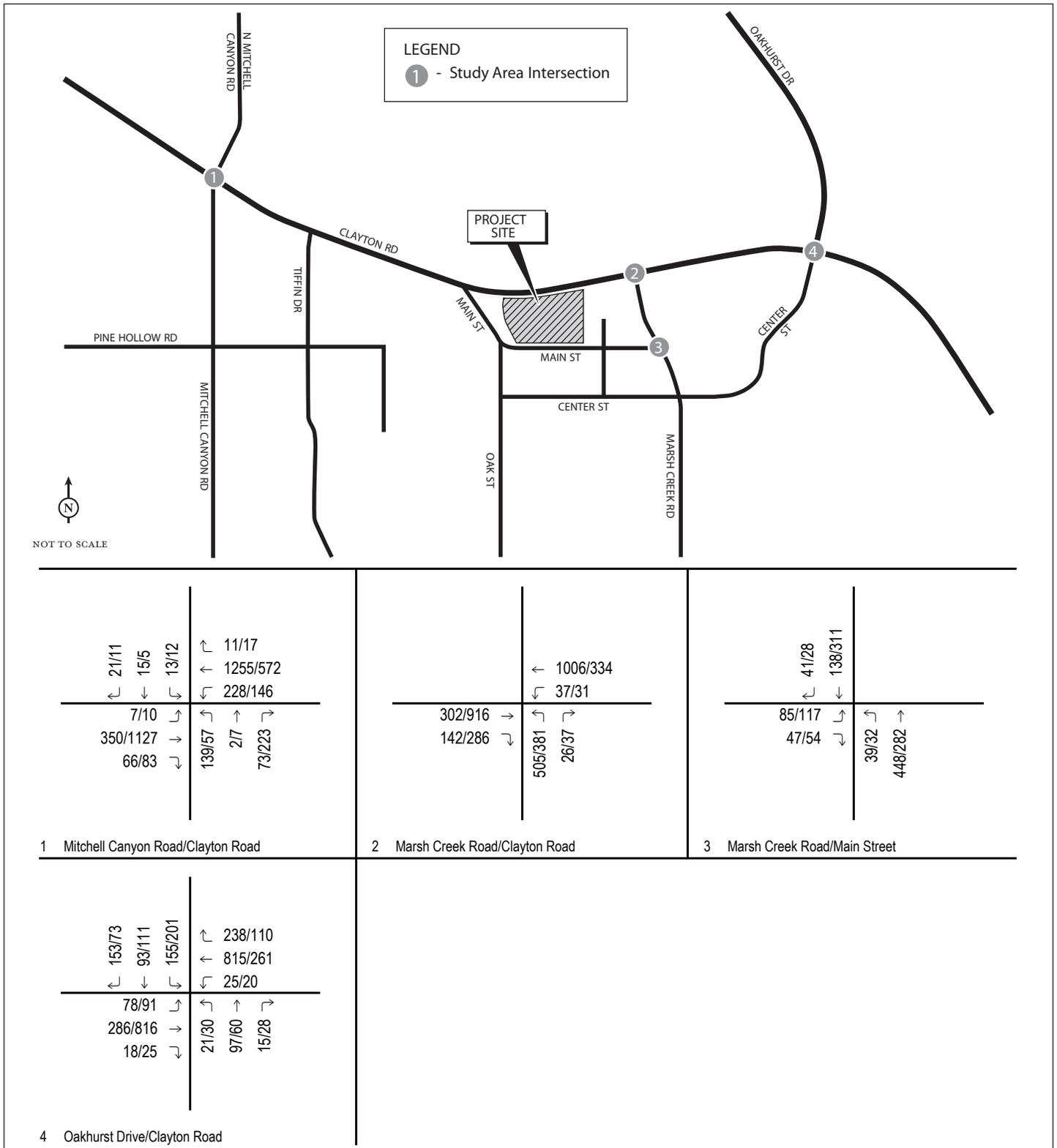
Notes:

V/C = Volume-to-Capacity ratio

AWSC = All-Way Stop-Controlled

For AWSC intersections, delay (in seconds [sec]) is the average control delay for the whole intersection.

Source: LSA Associates, Inc., 2010.



LSA

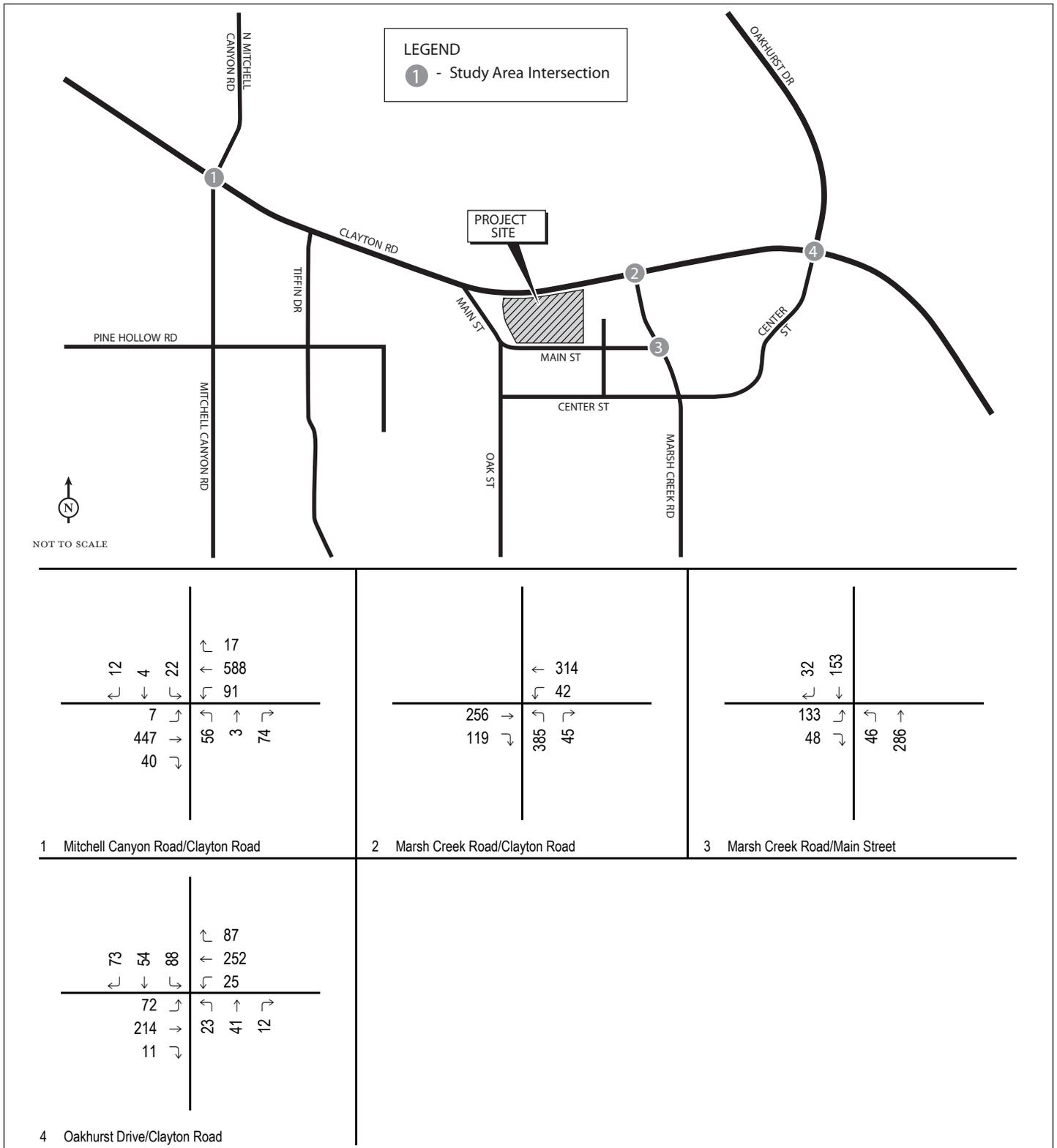
FIGURE IV.B-6a

123/456 AM/PM Volumes

SOURCES: LSAASSOCIATES, INC., 2010.

Clayton Community Church Project EIR
 Cumulative Plus Project Peak Hour Volumes

I:\CLY1001 Clayton Church\figures\Fig_IVB6a.ai (11/12/10)



LSA

FIGURE IV.B-6b

123/456 Sunday Mid-day Volumes

SOURCES: LSAASSOCIATES, INC. .2010.
 I:\CLY1001 Clayton Church\figures\Fig_IVB6b.ai (11/15/10)

(2) **Conflict with Congestion Management Program.** The LOS standard for the County CMP circulation system is LOS E, except for locations where the initial LOS measurement is LOS F (calculated as part of the 1991 CMP). However, none of the roadways or intersections in the study area are CMP locations. Therefore, the proposed project would not cause a significant impact on CMP facilities. In addition, all study area intersections would operate at LOS B or better.

(3) **Change Air Traffic Patterns.** The project site is approximately 7.5 miles southeast of the Buchanan Field Airport and would have no impact on air traffic patterns. The project would not result in the construction of tall buildings or the generation of extreme light or glare that would pose a hazard to aircraft. Therefore, no mitigation is required.

(4) **Design Hazards.** The proposed project would not increase hazards due to design features or incompatible uses. As discussed in Section IV.A, Land Use and Planning Policy, the land uses that would be developed on the site as part of the proposed project would be compatible with the predominantly commercial uses in downtown Clayton. Vehicular and pedestrian access to the project site would continue to be provided via the existing circulation network (i.e., Main Street and all adjacent local streets in downtown Clayton, as well as the sidewalks along these roadways). Safe access for church pedestrians would be provided, as adequate means of traffic control (i.e., crosswalks and stop signs) exist along downtown streets and intersections. The use of crosswalks may result in some delay to downtown traffic movement, especially at the beginning and end of church services. However, such delays would not be expected to last more than 10 or 15 minutes on a typical Sunday. The project driveway, which would also provide access to the Clayton Historical Society and Museum and the Kindercare Learning Center, would be designed in accordance with all applicable City standards. Adequate access for all emergency vehicles would be provided at the project driveway, and no secondary emergency access point would be required. All parking lot spaces would be 9 feet wide and 19 feet long. The driveway would be at a 90-degree angle with the adjacent street (i.e., Main Street), without any sight distance obstructions (i.e., signs, landscaping, or buildings). The driveway and parking lot drive aisles would be designed with sufficient width (i.e., at least 25 feet), so vehicles may circulate on-site without backing out onto Main Street. Vehicles would be able to enter every parking space with no backup movements and exit the space with one continuous backup movement. Although queues may occur as vehicles exit the driveway after church services, the queues would be contained on site. As a result, the project would not increase or introduce hazardous design features, and no mitigation is required.

(5) **Emergency Access.** The proposed project would not result in inadequate emergency access. Emergency vehicle access to the project site would continue to be provided along the existing circulation network (i.e., Main Street and all adjacent local streets). Brief intervals of increased traffic associated with the project would not substantially and adversely obstruct emergency access.

(6) **Alternative Transportation.** The following discussion includes a description of the potential impacts of the project on alternative transportation.

Public Transportation. The County Connection is a public transit system that provides a network of local, commuter express, and student bus routes throughout central Contra Costa County and within the City (i.e., Route 10 along Clayton Road and Marsh Creek Road between the hours of 6:00 a.m. and 8:00 p.m. on weekdays). The proposed project would not adversely affect current or future County Connection services. Although church members may utilize the County Connection on

weekdays, the County Connection does not provide service on the weekends when church attendance would be at its peak. In addition, the project would not affect or conflict with any adopted policies, plans, or programs pertaining to the provision of public transit service in the project area.

Bicycle Circulation. There are Class I (off-road paved) and Class II (on-road striped) bicycle facilities within the City. A pathway located on the western edge of the project site along Mitchell Creek provides pedestrian and bicycle circulation through the community (i.e., to/from Clayton Community Library and municipal complex north of Clayton Road, the Clayton Community Church south of Clayton Road, and Clayton Park and the residences west of Oak Street). The proposed project would not adversely affect this pathway (although linkages to the pathway would be provided within the project site). In addition, the project would include 26 bike parking spaces at a to-be-determined location.

Pedestrian Circulation. The existing pedestrian/bicycle pathway and sidewalks on the roadways adjacent to the project site (i.e., Main Street and all other local streets in the downtown area) would be maintained with the proposed project.

While the proposed project would not further policies or programs that support alternative transportation, it would not conflict or hinder implementation of such policies or programs. The proposed project would result in a less-than-significant impact related to alternative transportation, and no mitigation is required.

c. Significant Transportation, Circulation, and Parking Impacts. The following discussion describes the significant transportation-related impacts associated with implementation of the Clayton Community Church Project.

Impact TRANS-1: The project would result in inadequate parking capacity. (S)

According to the City's Zoning Code, retail/office uses require one parking space per 250 square feet, a community center requires one parking space per 300 square feet, and a religious assembly facility requires one parking space per three fixed seats. Based on the City's parking rates, the proposed project (consisting of 7,957 square feet of retail uses, 8,195 square feet of office uses, a 1,200-square-foot teen center, and a church sanctuary with approximately 500 seats) would require 32 spaces, 33 spaces, four spaces, and 167 spaces, respectively, for a total of 236 spaces. Despite providing 86 spaces via a 54-space on-site parking lot (an increase of 27 spaces from the existing lot), three new on-street spaces on Main Street, and a reciprocal parking agreement that allows the church to utilize 29 spaces in the adjacent Kindercare lot on the weekends, the project would not meet the City's parking requirements.

Schedule 17.37.030D of the City's Zoning Code, Reduction of Required Parking and Loading Spaces During Waiver Period, allows for a reduction of required on-site parking spaces for first and second floor retail sales/restaurant uses and second floor office/personal services uses in the Town Center (subject to City approval). The following on-site parking reductions are allowed for parcels greater than or equal to 10,000 square feet (the project site is approximately 2.3 acres, or 100,188 square feet):

- 75 percent reduction for retail/restaurant uses located on the first and/or second floor; and
- 25 percent reduction for office/personal services uses.

Based on the City's Schedule 17.37.030D on-site parking reductions, the project (consisting of 7,957 square feet of retail uses, 8,195 square feet of office uses, a 1,200-square-foot teen center, and a 500-seat church sanctuary) would require five spaces, 25 spaces, four spaces, and 167 spaces, respectively, for a total of 201 spaces. The total project parking supply of 86 spaces (54 on-site spaces, three on-street spaces, and 29 spaces on the Kindercare lot) would not meet the City's parking requirement.

Although the parking demand of the proposed retail/office uses and teen center is anticipated to be consistent with the City's Zoning Code parking requirements, LSA reviewed the proposed church schedule and expected attendance numbers to forecast the parking demand of the sanctuary uses. The church sanctuary is not scheduled to be used for worship services on weekdays; however, bible study sessions and group meetings would be held during weekday mornings and evenings. The attendance at these sessions/meetings would range from 40 to 95 church members. Although church members may carpool to these functions, a peak parking demand of one space per person has been assumed to evaluate a conservative, reasonable worst-case scenario.

A peak parking demand of 78 spaces would be generated by the retail/office uses and 40 church members attending bible study sessions on weekday mornings. During weekday evenings, a peak parking demand of 138 spaces would be generated by the retail/office uses and 95 church members attending meetings (e.g., for choir rehearsal, leadership council, prayer and worship team meetings).

Because Sundays would attract the most people for church gatherings held at 9:00 a.m. and 10:45 a.m., trip generation surveys were conducted and attendance numbers were collected at existing church services held at Diablo View Middle School. Based on data gathered at Sunday services on October 10, 2010, the peak inbound volume was 132 vehicles (i.e., generating a parking demand of 132 spaces) for the 9:00 a.m. gathering. The attendance at the 9:00 a.m. gathering was 242 people, which equates to 0.55 parked vehicle per person. The Sunday peak parking demand for the project was determined by applying the 0.55 vehicle per person rate to the potential attendance of 500 persons, 15 worship team members, and the pastor, resulting in a Sunday peak parking demand of 284 spaces for the church sanctuary.

Based on the City's approved parking rates and the proposed church schedule, the project (consisting of 7,957 square feet of retail uses, 8,195 square feet of office uses, a 1,200-square-foot teen center, and an average Sunday church attendance of approximately 500 people) would require 32 spaces, 33 spaces, four spaces, and 284 spaces, respectively, for a total of 353 spaces. With application of Schedule 17.37.030D, which allows for on-site parking space reductions, 321 on-site spaces and 32 off-site spaces would be required for the project. The project would not meet the City's parking requirements with a total parking supply of 86 spaces (54 on-site, three on-street, and 29 shared spaces) with or without the application of Schedule 17.37.030D.

In order to determine the total public parking supply available for existing downtown uses and the Clayton Community Church, LSA conducted an inventory of the public parking spaces within a 3-block radius of the project site. A total public parking supply of 255 spaces (public parking lot and on-street spaces) is available for downtown patrons and church members. An additional 93 parking spaces are available at the Clayton Community Library and the lot located at Heritage Trail for use on

Sundays. It should be noted that the parking lot would not be available for church parking when the library is open. The library is open from 1:00 p.m. to 9:00 p.m. on Mondays and Wednesdays and from 10:00 a.m. to 6:00 p.m. on Tuesdays, Thursdays, and Saturdays. Because the library could be open between 10:00 a.m. and 9:00 p.m. on any given weekday, the 93 Clayton Community Library/Heritage Trail parking spaces are considered unavailable to the church during weekdays. Although the library is open from 1:00 p.m. to 5:00 p.m. on Sundays, it is closed when parking demand generated by Sunday church services would peak (between 9:00 a.m. and 12:00 p.m.). Access to the downtown area and church site from these 93 parking spaces is provided via the pedestrian pathway underneath Clayton Road. The total public parking supply for the existing downtown and proposed church uses is 255 spaces on weekdays (and Saturday) and 348 spaces on Sundays.

As previously discussed, the project would provide a total of 57 parking spaces (54 on-site and three new spaces along Main Street). The church has a reciprocal parking agreement with the adjacent Kindercare that allows the church to use 29 parking spaces on weekends. The parking agreement begins January 1, 2012, or the date on which the church commences its main Sunday gatherings, whichever occurs later. This agreement is set to expire June 30, 2017, but – under the terms of the agreement – Kindercare and the church may renew the agreement for 5 years, or enter into a new agreement. A total parking supply of 312 spaces (255 existing public and 57 project spaces) is available for church use (and other downtown uses) on weekdays. A total parking supply of 434 spaces (255 existing public, 57 project, 29 Kindercare, and 93 Heritage Trail/Clayton Community Library spaces) is available for church use (and other downtown uses) on Sundays. Figure IV.B-7 illustrates all parking locations (and total parking spaces) potentially available for church use.

According to the Parking Study for the Clayton Community Church (TJKM Transportation Consultants, December 2009) and the City of Clayton Town Center Parking Study (prepared for the City by SAS Planning Consulting in May 2006), existing downtown land uses include approximately 34,850 square feet of retail space, 22,150 square feet of restaurant space, and 34,600 square feet of office uses. A total of 357 privately owned on-site parking spaces serve these uses. It is assumed that patrons of the existing land uses would first utilize the privately-owned parking spaces prior to parking in the public spaces (i.e., 255 spaces on weekdays and 348 spaces on Sundays). Table IV.B-6 presents a summary of the parking demand generated by the existing downtown uses based on the City's Zoning Code, and available private parking spaces that are provided for the existing uses.

As shown in this table, the retail uses generate a parking demand of 150 spaces, 45 of which are public spaces. The parking demand for the restaurant uses is 266 spaces, 156 of which are public spaces. The office uses generate a parking demand of 139 spaces, 47 of which are public spaces. Grove Park generates a parking demand of 5 public spaces. Therefore, the existing downtown uses generate a total demand of 560 spaces, including 253 public spaces.

Table IV.B-6: Downtown Clayton Parking Demand

Land Use	Business Name	Square Feet	Parking Demand ¹	Private Parking Spaces Provided ²	Private Parking Deficit (Demand for Public Spaces)
Retail	B&B Commercial Building	6,650	27	17	10
	Children's World Day Care	8,725	35	34	1
	Clayton Mind & Body Connection	2,400	10	0	10
	Frontier Salon, Courtyard Florist, Main St. Aesthetics	1,700	7	15	0
	Hair by Jim	450	2	9	0
	Lisa's Hair & Nail	400	2	10	0
	Skipolini's Time Out	1,100	4	0	4
	Rising Phoenix	2,250	9	14	0
	TLC Pet Grooming	1,225	5	3	2
	Village Market	3,800	15	10	5
	Village Oaks	6,150	25	21	4
	Snap Fitness (Exercise Studio)	2,250	9	0	9
		Total	37,100	150	133
Restaurant	Clayton Club Saloon	4,625	62	30	32
	Moresi's Chophouse	3,275	44	14	30
	La Veranda	5,250	70	13	57
	Skipolini's Pizza	3,750	50	20	30
	Village Oaks	3,000	40	33	7
	Total	19,900	266	110	156
Office/Other	Clayton Historical Museum	1,325	5	0	5
	Endeavor Hall	2,900	12	1	11
	Gardner-Cademartori Dentistry	1,600	6	14	0
	AT&T Substation	6,125	25	4	21
	Permco	2,400	10	9	1
	U.S. Post Office	7,100	28	42	0
	Village Oaks	13,150	53	44	9
	Total	34,600	139	114	47
Park	Grove Park		5	0	5
TOTAL		91,600	560	357	253

Notes:

- ¹ The parking demand is based on the parking requirements in the City of Clayton Zoning Code. Retail: 1 space per 250 square feet; Restaurant: 1 space per 75 square feet; Office: 1 space per 250 square feet.
- ² According to the Parking Study for the Clayton Community Church (TJKM Transportation Consultants, December 2009) and the City of Clayton Town Center Parking Study, there are approximately 612 parking spaces (357 privately-owned and 255 publicly-owned) serving existing downtown uses. Please note that this table reflects businesses existing in 2009. Source: TJKM Transportation Consultants, 2009.

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As part of this EIR, a shared parking analysis was conducted to determine whether the existing downtown uses and the proposed church uses could adequately share public parking spaces, based on a parking supply of 255 spaces on weekdays and 348 spaces on Sundays.

The shared parking analysis is consistent with the methodology presented in the Urban Land Institute (ULI) *Shared Parking* document, Second Edition (2005), and was conducted to determine the hourly parking demand of each individual existing and proposed use. For purposes of this shared parking analysis, the parking demand for the proposed project was identified based on the City's Zoning Code parking requirements for the retail/office uses and Teen Center. The parking demand and the hourly utilization percentages of the sanctuary uses were based on operational information (i.e., schedules and attendance) and survey data. The hourly parking demand of each of the proposed uses was added to the existing parking demand to determine the total parking demand within the downtown area.

The results of the shared parking analysis are presented in Tables IV.B-7 and IV.B-8 for a weekday and Sunday, respectively.

Table IV.B-7 shows a peak parking demand for public parking spaces of 261 spaces (6:00 p.m.) on a weekday. The peak parking demand of 266 spaces includes parking demand generated by the church. This would result in a parking deficit of 11 spaces, based on the existing available public parking supply of 255 spaces.

As shown in Table IV.B-8, a peak parking demand for public parking spaces of 402 spaces (11:00 a.m.) would occur on a Sunday. The peak parking demand of 402 spaces includes parking demand generated by the church. This would result in a parking deficit of 54 spaces, based on the existing available public parking supply of 348 spaces.

Based on the total public parking supply available on weekdays and Sundays, the proposed project would result in a parking deficit in the downtown of 11 spaces on a weekday and 54 spaces on a Sunday. Therefore, it is anticipated that the parking demand associated with the proposed project, in combination with existing downtown uses, would exceed the physical supply of parking in downtown. The church would utilize a majority of the available public parking spaces, thereby decreasing the overall parking available in the downtown area. This forecast deficit in the downtown parking supply, particularly at peak times, could make it difficult for patrons of local businesses to find readily-available parking. In addition, as noted above, the project would not provide adequate parking, per City requirements. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level:

Mitigation Measure TRANS-1: The project sponsor shall implement the following measures to the satisfaction of the Community Development Director prior to the issuance of a building permit:

- Clayton Community Church shall develop a site-specific parking management program that incorporates the following elements:
 - Pursue reciprocal parking agreements with adjacent businesses that are closed or have underutilized parking during time periods of church operations, or identify opportunities for off-site parking with shuttle service. Based on a total parking supply of 57 spaces on a weekday (i.e., 54 on-site spaces and three new spaces along Main Street) and 86 spaces on a weekend (i.e., 54 on-site spaces, three new spaces along

Main Street, and 29 spaces on the Kindercare site per a reciprocal parking agreement), an additional 81 spaces would be needed on weekdays and an additional 223 spaces would be needed on Sundays for typical church operations. Although the parking demand during special events could exceed the total parking supply (both on- and off-site), special events would not occur on a weekly basis. In order to ensure that church members utilize parking spaces per reciprocal parking agreements, church staff shall make announcements verbally and by email, and distribute flyers at the end of church services and meetings indicating the church-designated parking areas.

- Enter into a reciprocal parking agreement with the City that would allow the public to utilize on-site parking spaces at the church during Town Center events, such as the annual Art and Wine Festival.
- Develop a public information program to make parishioners aware of the availability of parking at the Clayton Community Library and the lot located at Heritage Trail. Parishioners should be directed to utilize these alternative parking areas (when parking in these areas is available) prior to seeking parking in downtown public parking spaces.
- During peak attendance events, provide free valet parking such that vehicles are parked in an off-site area. This measure would minimize the demand for downtown public parking spaces and eliminate the need to circle the downtown area looking for parking.
- Schedule non-religious activities that would tend to generate peak attendance (such as the Annual Banquet, concerts, and school plays) during times when downtown parking demand is otherwise low, such as during weekday evenings. In addition, coordinate large events with the Town Center event schedule to avoid scheduling large church and community events at the same time.
- The Clayton Community Church shall pay a pro-rata share of the cost to develop a Downtown Parking Management Program (DPMP). The DPMP shall ensure adequate parking availability for church activities as well as other existing and future merchants and patrons in the downtown area. The DPMP shall include measures such as the following:
 - Create a Transportation Management Association to collect public/private funds to promote the use of ridesharing/commuting among all downtown patrons, including church members.
 - Require payment for parking (e.g., installation of parking meters for on-street and/or off-street spaces, and monthly/yearly permits for public parking lots).
 - Identify additional parking opportunities and options for funding new parking in the downtown area.
 - Require private parking spaces to be “shared” with other downtown uses so that parking is maintained for individual businesses but excess parking is shared among individual parcels.
 - Identify additional opportunities for ridesharing, transit, and alternative transportation to/from and within downtown Clayton.
 - Ensure that public parking spaces are available at all times (i.e., a 5 percent parking buffer). If adequate parking is not provided (i.e., less than 5 percent parking buffer or a deficit occurs) in the downtown area, the City shall post signs with time restrictions for on-street parking and/or increase fees for metered spaces (if a fee system is implemented). (LTS)

Table IV.B-7: Clayton Community Church Shared Parking Analysis – Weekday

Time	Existing Downtown Clayton Uses ¹					Proposed Clayton Community Church Uses ¹								Downtown Clayton (Existing and Proposed Uses)									
	Retail/Commercial size = 37,100 SF		Restaurant size = 19,900 SF		Office size = 34,600 SF		Grove Park		Public Parking Space	Retail/Commercial size = 7,957 SF		Office ² size = 8,195 SF		Teen Center size = 1,200 SF		Sanctuary/Community ² size = 24,812 SF		Parking Space					
	demand = 45 spaces		demand = 156 spaces		demand = 47 spaces		demand = 5 spaces		Demand	1 space per 250 SF demand = 32 spaces		1 space per 250 SF demand = 33 spaces		1 space per 300 SF demand = 4 spaces		1 space per 1 person demand = 95 spaces		Demand					
	% utilization	spaces	% utilization	spaces	% utilization	spaces	% utilization	spaces	Total ³	% utilization	spaces	% utilization	spaces	% utilization	spaces	% utilization	spaces	Total	Church ⁴	Public	Demand	Provided ⁵	Residual/ (Deficit)
7:00 AM	5%	3	50%	78	30%	15	100%	5	101	5%	2	50%	17	0%	0	42%	40	59	57	2	103	255	152
8:00 AM	15%	7	60%	94	75%	36	100%	5	142	15%	5	100%	33	0%	0	42%	40	78	57	21	163	255	92
9:00 AM	35%	16	75%	117	95%	45	100%	5	183	35%	12	100%	33	0%	0	21%	20	65	57	8	191	255	64
10:00 AM	65%	30	85%	133	100%	47	100%	5	215	65%	21	100%	33	0%	0	11%	11	65	57	8	223	255	32
11:00 AM	85%	39	90%	141	100%	47	100%	5	232	85%	28	100%	33	0%	0	0%	0	61	57	4	236	255	19
12:00 PM	95%	43	100%	156	90%	43	100%	5	247	95%	31	100%	33	25%	1	0%	0	65	57	8	255	255	0
1:00 PM	100%	45	90%	141	90%	43	100%	5	234	100%	32	100%	33	50%	2	0%	0	67	57	10	244	255	11
2:00 PM	95%	43	50%	78	100%	47	100%	5	173	95%	31	100%	33	75%	3	0%	0	67	57	10	183	255	72
3:00 PM	90%	41	45%	71	100%	47	100%	5	164	90%	29	100%	33	100%	4	0%	0	66	57	9	173	255	82
4:00 PM	90%	41	45%	71	90%	43	100%	5	160	90%	29	90%	30	100%	4	0%	0	63	57	6	166	255	89
5:00 PM	95%	43	75%	117	50%	24	100%	5	189	95%	31	50%	17	100%	4	26%	25	77	57	20	209	255	46
6:00 PM	95%	43	80%	125	25%	12	100%	5	185	95%	31	25%	9	75%	3	100%	95	138	57	81	266	255	(11)
7:00 PM	95%	43	80%	125	10%	5	100%	5	178	95%	31	10%	4	50%	2	100%	95	132	57	75	253	255	2
8:00 PM	80%	36	80%	125	7%	4	0%	0	165	80%	26	7%	3	25%	1	100%	95	125	57	68	233	255	22
9:00 PM	50%	23	60%	94	3%	2	0%	0	119	50%	16	3%	1	0%	0	26%	25	42	42	0	119	255	136
Peak Shared Parking Demand of Public Spaces																					266		
Public Parking Supply																					255		
Residual / (Deficit)																					(11)		

Notes:

Parking utilization is based on the Urban Land Institute (ULI) *Shared Parking*, 2nd Edition.

- ¹ The parking demand is based on the parking requirements in the City of Clayton Zoning Code. Retail: 1 space per 250 sf, Restaurant: 1 space per 75 sf, Office: 1 space per 250 sf, Community (Teen) Center: 1 space per 300 sf. Only the vehicles parked in public spaces (per Table IV.B-6) have been considered in the parking demand for the existing Downtown Clayton uses.
- ² The parking demand and percent utilization is based on the proposed schedules and attendance. The office will only be open on weekdays. The Sanctuary will provide regular services/sessions for up to 95 people on weekdays and gatherings/services for an estimated 516 people on Sundays (i.e., 500 church members, 15 worship team members, and 1 pastor). Based on attendance numbers provided by the Church and trip generation surveys conducted by National Data & Surveying Services on Sunday, October 10, 2010, the peak parking demand was 132 vehicles for 242 people. The 15 worship team members and the pastor are assumed to drive themselves on Sundays (i.e., parking demand of 16 vehicles).
- ³ According to the Parking Study for the Clayton Community Church (TJKM Transportation Consultants, December 2009) and the City of Clayton Town Center Parking Study (SAS Planning Consulting, May 2006), there are approximately 612 parking spaces (357 privately-owned on-site spaces, and 255 publicly-owned parking lot and on-street spaces) serving the existing downtown uses.
- ⁴ The church parking lot will be reconfigured to provide 54 on-site spaces (an increase of 27 spaces) and 3 new on-street parking spaces will be provided on Main Street, for a total project parking supply of 57 spaces. The Clayton Community Church has a shared parking agreement with the adjacent Kindercare that allows the church to utilize 29 spaces on the Kindercare site from 7:00 p.m. on Friday to 11:59 p.m. on Sunday.
- ⁵ The two parking lots north of Clayton Road provide an additional 93-space parking supply (i.e., 28 spaces at the Heritage Trail lot and 65 spaces at the Contra Costa County Library) on Sundays prior to 1:00 p.m. A total public parking supply of 255 spaces is available on weekdays and 348 spaces is available on Sundays prior to 1:00 p.m.

Source: LSA Associates, Inc., 2011.

Table IV.B-8: Clayton Community Church Shared Parking Analysis – Sunday

Time	Existing Downtown Clayton Uses ¹						Proposed Clayton Community Church Uses ¹										Downtown Clayton (Existing and Proposed Uses) Total SF: 133,764						
	Retail/Commercial size = 37,100 SF demand = 45 spaces		Restaurant size = 19,900 SF demand = 156 spaces		Office size = 34,600 SF demand = 47 spaces		Grove Park demand = 5 spaces		Public Parking Space Demand	Retail/Commercial size = 7,957 SF 1 space per 250 SF demand = 32 spaces		Office ² size = 8,195 SF 1 space per 250 SF demand = 33 spaces		Teen Center size = 1,200 SF 1 space per 300 SF demand = 4 spaces		Sanctuary/Community ² size = 24,812 SF 1 space per 0.55 person demand = 284 spaces		Parking Space Demand			Demand	Provided ⁵	Residual/ (Deficit)
	% utilization	spaces	% utilization	spaces	% utilization	spaces	% utilization	spaces	Total ³	% utilization	spaces	% utilization	spaces	% utilization	spaces	% utilization	spaces	Total	Church ⁴	Public			
7:00 AM	5%	3	25%	39	5%	3	100%	5	50	5%	2	0%	0	50%	2	0%	0	4	4	0	50	348	298
8:00 AM	10%	5	45%	71	5%	3	100%	5	84	10%	4	0%	0	75%	3	55%	157	164	86	78	162	348	186
9:00 AM	30%	14	70%	110	5%	3	100%	5	132	30%	10	0%	0	100%	4	100%	284	298	86	212	344	348	4
10:00 AM	50%	23	90%	141	5%	3	100%	5	172	50%	16	0%	0	100%	4	100%	284	304	86	218	390	348	(42)
11:00 AM	65%	30	90%	141	5%	3	100%	5	179	65%	21	0%	0	100%	4	100%	284	309	86	223	402	348	(54)
12:00 PM	80%	36	100%	156	5%	3	100%	5	200	80%	26	0%	0	75%	3	34%	97	126	86	40	240	255	15
1:00 PM	90%	41	85%	133	5%	3	100%	5	182	90%	29	0%	0	75%	3	0%	0	32	32	0	182	255	73
2:00 PM	100%	45	65%	102	5%	3	100%	5	155	100%	32	0%	0	75%	3	0%	0	35	35	0	155	255	100
3:00 PM	100%	45	40%	63	5%	3	100%	5	116	100%	32	0%	0	100%	4	0%	0	36	36	0	116	255	139
4:00 PM	95%	43	45%	71	5%	3	100%	5	122	95%	31	0%	0	100%	4	0%	0	35	35	0	122	255	133
5:00 PM	90%	41	60%	94	5%	3	100%	5	143	90%	29	0%	0	100%	4	0%	0	33	33	0	143	255	112
6:00 PM	80%	36	70%	110	5%	3	100%	5	154	80%	26	0%	0	75%	3	0%	0	29	29	0	154	255	101
7:00 PM	75%	34	70%	110	5%	3	100%	5	152	75%	24	0%	0	50%	2	0%	0	26	26	0	152	255	103
8:00 PM	65%	30	65%	102	5%	3	0%	0	135	65%	21	0%	0	25%	1	0%	0	22	22	0	135	255	120
9:00 PM	50%	23	30%	47	5%	3	0%	0	73	50%	16	0%	0	0%	0	0%	0	16	16	0	73	255	182
Peak Shared Parking Demand of Public Spaces																							402
Public Parking Supply																							348
Residual / (Deficit)																							(54)

Notes:

Parking utilization is based on the Urban Land Institute (ULI) *Shared Parking*, 2nd Edition.

¹ The parking demand is based on the parking requirements in the City of Clayton Zoning Code. Retail: 1 space per 250 sf, Restaurant: 1 space per 75 sf, Office: 1 space per 250 sf, Community (Teen) Center: 1 space per 300 sf. Only the vehicles parked in public spaces (per Table IV.B-6) have been considered in the parking demand for the existing Downtown Clayton uses.

² The parking demand and percent utilization is based on the proposed schedules and attendance. The office will only be open on weekdays. The Sanctuary will provide regular services/sessions for up to 95 people on weekdays and gatherings/services for an estimated 516 people on Sundays (i.e., 500 church members, 15 worship team members, and 1 pastor). Based on attendance numbers provided by the Church and trip generation surveys conducted by National Data & Surveying Services on Sunday, October 10, 2010, the peak parking demand was 132 vehicles for 242 people. The 15 worship team members and the pastor are assumed to drive themselves on Sundays (i.e., parking demand of 16 vehicles).

³ According to the Parking Study for the Clayton Community Church (TJKM Transportation Consultants, December 2009) and the City of Clayton Town Center Parking Study (SAS Planning Consulting, May 2006), there are approximately 612 parking spaces (357 privately-owned on-site spaces, and 255 publicly-owned parking lot and on-street spaces) serving the existing downtown uses.

⁴ The church parking lot will be reconfigured to provide 54 on-site spaces (an increase of 27 spaces) and 3 new on-street parking spaces will be provided on Main Street, for a total project parking supply of 57 spaces. The Clayton Community Church has a shared parking agreement with the adjacent Kindercare that allows the church to utilize 29 spaces on the Kindercare site from 7:00 p.m. on Friday to 11:59 p.m. on Sunday.

⁵ The two parking lots north of Clayton Road provide an additional 93-space parking supply (i.e., 28 spaces at the Heritage Trail lot and 65 spaces at the Contra Costa County Library) on Sundays prior to 1:00 p.m. A total public parking supply of 255 spaces is available on weekdays and 348 spaces is available on Sundays prior to 1:00 p.m.

Source: LSA Associates, Inc., 2011.

Impact TRANS-2: The project, in combination with reasonably foreseeable future development in the Town Center, would result in inadequate parking capacity. (S)

According to the Economic/Fiscal Evaluation of the Clayton Community Church Development Proposal (Bay Area Economics, March 2011), the Town Center has the physical potential to accommodate approximately 88,365 square feet of new development in addition to the proposed Clayton Community Church Project, including approximately 44,183 square feet of retail and 44,182 square feet of office uses. In order to evaluate the effects of the parking demand generated by the project in the context of reasonably foreseeable future development, a shared parking analysis has been prepared for the existing downtown uses, the proposed church project, and the new retail/office uses.

The results of the cumulative shared parking analysis are presented in Tables IV.B-9 and IV.B-10 for a weekday and Sunday, respectively. The future retail/office development is anticipated to provide on-site parking consistent with Schedule 17.37.030D of the City's Zoning Code (i.e., a 75 percent reduction of on-site spaces for retail uses and a 25 percent reduction of on-site spaces for office uses). As a result, 75 percent of the parking demand generated by the new retail uses and 25 percent of the parking demand generated by the new office uses would utilize public parking spaces.

Table IV.B-9 shows a cumulative peak parking demand for public parking spaces of 426 spaces (12:00 p.m.) on a weekday. The peak parking demand of 426 spaces includes parking demand generated by the church. This would result in a parking deficit of 171 spaces, based on the existing available public parking supply of 255 spaces during a weekday.

As shown in Table IV.B-10, a cumulative peak parking demand for public parking spaces of 489 spaces (11:00 a.m.) would occur on a Sunday. The peak parking demand of 489 spaces includes parking demand generated by the church. This would result in a parking deficit of 141 spaces, based on the existing available public parking supply of 348 spaces on a Sunday.

Based on the total public parking supply available on weekdays and Sundays, a parking deficit in the Town Center would occur on a weekday (171 spaces) and Sunday (141 spaces), with implementation of the proposed project and construction of 88,364 square feet of new retail and office uses in the Town Center. The project would contribute to this cumulative parking deficiency.

The church also hosts special events throughout the year which would attract significantly more people (up to 1,000 attendees) than a typical Sunday service. These events include concerts, community theatrical productions, weddings and funerals, Christmas and Easter services, and the yearly banquet and Soap Box Derby. Because the project would not include adequate parking on-site and the development of approximately 88,365 square feet of new retail/office uses would create additional parking demand in the Town Center, the parking demand associated with special events could further diminish the available downtown public parking supply. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level:

Mitigation Measure TRANS-2: Implement Mitigation Measure TRANS-1. (LTS)

Table IV.B-9: Clayton Community Church Shared Parking Analysis - Weekday (88,365 SF of Future Commercial/Office Uses)

	Existing Downtown Clayton Uses ³	Future Commercial/Office Uses ¹									Proposed Clayton Community Church Uses ³			Downtown Clayton (Existing and Proposed Uses) Total SF: 222,129		
		Retail/Commercial ²			Office ²			Public Parking Space Demand								
	Public Parking Space Demand	size = 44,183 SF 1 space per 250 SF demand = 177 spaces		size = 44,182 SF 1 space per 250 SF demand = 177 spaces								Public Parking Spaces				
Time	Total	% utilization	Total	On-site	Public	% utilization	Total	On-site	Public	Total	Total	Church	Public	Demand	Provided ⁴	Residual/ (Deficit)
7:00 a.m.	101	5%	9	2	7	50%	89	67	22	29	59	57	2	132	255	123
8:00 a.m.	142	15%	27	7	20	100%	177	133	44	64	78	57	21	227	255	28
9:00 a.m.	183	35%	62	16	46	100%	177	133	44	90	65	57	8	281	255	(26)
10:00 a.m.	215	65%	116	29	87	100%	177	133	44	131	65	57	8	354	255	(99)
11:00 a.m.	232	85%	151	38	113	100%	177	133	44	157	61	57	4	393	255	(138)
12:00 p.m.	247	95%	169	42	127	100%	177	133	44	171	65	57	8	426	255	(171)
1:00 p.m.	234	100%	177	44	133	100%	177	133	44	177	67	57	10	421	255	(166)
2:00 p.m.	173	95%	169	42	127	100%	177	133	44	171	67	57	10	354	255	(99)
3:00 p.m.	164	90%	160	40	120	100%	177	133	44	164	66	57	9	337	255	(82)
4:00 p.m.	160	90%	160	40	120	90%	160	120	40	160	63	57	6	326	255	(71)
5:00 p.m.	189	95%	169	42	127	50%	89	67	22	149	77	57	20	358	255	(103)
6:00 p.m.	185	95%	169	42	127	25%	45	34	11	138	138	57	81	404	255	(149)
7:00 p.m.	178	95%	169	42	127	10%	18	14	4	131	132	57	75	384	255	(129)
8:00 p.m.	165	80%	142	36	106	7%	13	10	3	109	125	57	68	342	255	(87)
9:00 p.m.	119	50%	89	22	67	3%	6	5	1	68	42	42	0	187	255	68
Peak Shared Parking Demand of Public Spaces															426	
Public Parking Supply															255	
Residual / (Deficit)															(171)	

Notes:

Parking utilization is based on the Urban Land Institute (ULI) *Shared Parking*, 2nd Edition.

¹ The parking demand is based on the parking requirements in the City of Clayton Zoning Code. Retail: 1 space per 250 sf, Office: 1 space per 250 sf.

² The on-site parking requirement of the retail/commercial use is reduced by 75 percent (i.e., from 1 space per 250 sf to 1 space per 1,000 sf) and the office use is reduced by 25 percent (i.e., from 1 space per 250 sf to 3 spaces per 1,000 sf) per City of Clayton Zoning Code Schedule 17.37.030D.

³ The parking demand is referenced from Table IV.B-7.

⁴ The two parking lots north of Clayton Road provide an additional 93-space parking supply (i.e., 28 spaces at the Heritage Trail lot and 65 spaces at the Contra Costa County Library) on Sundays prior to 1:00 p.m. A total public parking supply of 255 spaces is available on weekdays and 348 spaces is available on Sundays prior to 1:00 p.m.

Source: LSA Associates, Inc., 2011.

Table IV.B-10: Clayton Community Church Shared Parking Analysis - Sunday (88,365 SF of Future Commercial/Office Uses)

Time	Existing Downtown Clayton Uses ³	Future Commercial/Office Uses ¹									Proposed Clayton Community Church Uses ³			Downtown Clayton (Existing and Proposed Uses) Total SF: 222,129		
		Retail/Commercial ²			Office ²			Public Parking Space Demand								
		Public Parking Space Demand	size = 44,183 SF 1 space per 250 SF demand = 177 spaces	size = 44,182 SF 1 space per 250 SF demand = 177 spaces	Total	On-site	Public		% utilization	Total	Church	Public	Demand	Provided ⁴	Residual/ (Deficit)	
7:00 a.m.	50	5%	9	2	7	0%	0	0	0	7	4	4	0	57	348	291
8:00 a.m.	84	10%	18	5	13	0%	0	0	0	13	164	86	78	175	348	173
9:00 a.m.	132	30%	54	14	40	0%	0	0	0	40	298	86	212	384	348	(36)
10:00 a.m.	172	50%	89	22	67	0%	0	0	0	67	304	86	218	457	348	(109)
11:00 a.m.	179	65%	116	29	87	0%	0	0	0	87	309	86	223	489	348	(141)
12:00 p.m.	200	80%	142	36	106	0%	0	0	0	106	126	86	40	346	255	(91)
1:00 p.m.	182	90%	160	40	120	0%	0	0	0	120	32	32	0	302	255	(47)
2:00 p.m.	155	100%	177	44	133	0%	0	0	0	133	35	35	0	288	255	(33)
3:00 p.m.	116	100%	177	44	133	0%	0	0	0	133	36	36	0	249	255	6
4:00 p.m.	122	95%	169	42	127	0%	0	0	0	127	35	35	0	249	255	6
5:00 p.m.	143	90%	160	40	120	0%	0	0	0	120	33	33	0	263	255	(8)
6:00 p.m.	154	80%	142	36	106	0%	0	0	0	106	29	29	0	260	255	(5)
7:00 p.m.	152	75%	133	33	100	0%	0	0	0	100	26	26	0	252	255	3
8:00 p.m.	135	65%	116	29	87	0%	0	0	0	87	22	22	0	222	255	33
9:00 p.m.	73	50%	89	22	67	0%	0	0	0	67	16	16	0	140	255	115
													Peak Shared Parking Demand of Public Spaces		489	
													Public Parking Supply		348	
													Residual / (Deficit)		(141)	

Notes:

Parking utilization is based on the Urban Land Institute (ULI) *Shared Parking*, 2nd Edition.

¹ The parking demand is based on the parking requirements in the City of Clayton Zoning Code. Retail: 1 space per 250 sf, Office: 1 space per 250 sf.

² The on-site parking requirement of the retail/commercial use is reduced by 75 percent (i.e., from 1 space per 250 sf to 1 space per 1,000 sf) and the office use is reduced by 25 percent (i.e., from 1 space per 250 sf to 3 spaces per 1,000 sf) per City of Clayton Zoning Code Schedule 17.37.030D.

³ The parking demand is referenced from Table IV.B-8.

⁴ The two parking lots north of Clayton Road provide an additional 93-space parking supply (i.e., 28 spaces at the Heritage Trail lot and 65 spaces at the Contra Costa County Library) on Sundays prior to 1:00 p.m. A total public parking supply of 255 spaces is available on weekdays and 348 spaces is available on Sundays prior to 1:00 p.m.

Source: LSA Associates, Inc., 2011.

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C. AIR QUALITY

This section has been prepared using methodologies, assumptions, and significance thresholds recommended in the air quality impact assessment guidelines of the Bay Area Air Quality Management District (BAAQMD),¹ which were adopted in June 2010. This section describes existing air quality, and the potential effects of the proposed project on air quality. Construction and operation emissions were modeled using tools recommended by the BAAQMD. Mitigation measures to reduce potentially significant air quality impacts are identified where appropriate.

1. Setting

The following discussion provides an overview of general air quality concepts, air standards, laws and regulatory agencies, summaries of air monitoring data, climate and topography as they affect air quality, and characteristics of various air pollutants.

Ambient air quality changes depending on various factors, including:

- Quantities of pollutants emitted within the area,
- Pollution transported by the wind to and from surrounding areas,
- Local and regional meteorological conditions, and
- Air basin topography.

Air quality is described by the concentration of various pollutants in the atmosphere. Units of concentration are generally expressed in parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The significance of a pollutant concentration is determined by comparing the concentration to an appropriate ambient air quality standard. The standards represent the allowable pollutant concentrations designed to ensure that the public health and welfare are protected, while including a reasonable margin of safety to protect the more sensitive individuals in the population.

The City of Clayton is located in the San Francisco Bay Area Air Basin, which includes the counties of San Francisco, Santa Clara, San Mateo, Marin, Napa, Contra Costa, and Alameda, along with the southeast portion of Sonoma County and the southwest portion of Solano County.

a. Air Quality Standards, Regulatory Framework and Attainment Status. Air quality standards, the regulatory framework, and State and federal attainment status are discussed below.

(1) National and State Ambient Air Quality Standards. As required by the Federal Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for seven major air pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), sulfur dioxide (SO₂), and lead. These standards are based on three criteria (thus the seven major air pollutants are known as “criteria pollutants”) which are: 1) a named compound; 2) a concentration; and 3) a measurement time period.

The California Ambient Air Quality Standards (CAAQS) are generally more stringent than the corresponding federal standards, and incorporate additional standards for sulfates, hydrogen sulfide, vinyl

¹ BAAQMD, 2010. *California Environmental Quality Act Air Quality Guidelines*. June.

chloride and visibility-reducing particles. Both State and federal standards are summarized in Table IV.C-1. The primary standards have been established to protect public health. The secondary standards are intended to address adverse effects on soil, water, visibility, materials, vegetation and other aspects of the general welfare.

Table IV.C-1: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ^a		Federal Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e,i}	Secondary ^{c,f}	Method ^g
Ozone (O₃)	1-Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	No Federal Standard	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)		
Respirable Particulate Matter (PM₁₀)	24-Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		–		
Fine Particulate Matter (PM_{2.5})	24-Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	15 µg/m ³		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	None	Non- Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–		
Nitrogen Dioxide (NO₂)	Annual Arithmetic Mean	0.03 ppm (57 µg/m ³)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m ³) (see footnote h)	Same as Primary Standard	Gas Phase Chemilumin- escence
	1-Hour	0.18 ppm (339 µg/m ³)		0.100 ppm (see footnote h)		
Lead^j	Rolling 3-Month Average	–	Atomic Absorption	0.15 µg/m ³	Same as Primary Standard	High-Volume Sampler and Atomic Absorption
	30-day average	1.5 µg/m ³		–		
	Calendar Quarter	–		1.5 µg/m ³		
Sulfur Dioxide (SO₂)	24-Hour	0.04 ppm (105 µg/m ³)	Ultraviolet Fluorescence	–	–	Spectrophoto- metry (Pararosaniline Method)
	3-Hour	–		–		
	1-Hour	0.25 ppm (655 µg/m ³)		75 ppb (196 µg/m ³) (see footnote i)	–	

Table IV.C-1 Continued

Pollutant	Averaging Time	California Standards ^a		Federal Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e,i}	Secondary ^{c,f}	Method ^g
Visibility-Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of 10 miles or more (0.07–30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates	24-Hour	25 $\mu\text{g}/\text{m}^3$	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	Ultraviolet Fluorescence			
Vinyl Chloride ^j	24-Hour	0.01 ppm (26 $\mu\text{g}/\text{m}^3$)	Gas Chromatography			

^a California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter—PM₁₀, PM_{2.5}, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

^b National standards (other than for ozone and particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu\text{g}/\text{m}^3$ is equal to or less than 1. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact EPA for further clarification and current federal policies.

^c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

^d Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

^e National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

^f National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

^g Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.

^h To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the EPA standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

ⁱ On June 2, 2010, the EPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reference Method (FRM) using ultraviolet technology, but will retain the older pararosaniline methods until the new FRM has adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour SO₂ standard of 0.14 ppm and the annual primary SO₂ standard of 0.30 ppm, effective August 23, 2010. The secondary SO₂ standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

^j The ARB has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: California ARB, 2010.

(2) Regulatory Framework. The Federal Clean Air Act (CAA) governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. At the federal level, the United States Environmental Protection Agency (U.S. EPA) administers the CAA. The California Clean Air Act is administered by the California Air Resources Board (CARB) at the State level and by the Air Quality Management Districts at the regional and local levels. The BAAQMD regulates air quality at the regional level, which includes most of the nine-county Bay Area. Key regulatory agencies and air quality plans are discussed briefly below.

United States Environmental Protection Agency. The U.S. EPA is responsible for updating the NAAQS as required under the 1977 Clean Air Act and subsequent amendments. The U.S. EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including for vehicles sold in states other than California.

California Air Resources Board. The CARB is part of the California Environmental Protection Agency. CARB is responsible for administering the California Clean Air Act. The agency is responsible for setting emission standards for vehicles, stationary sources, consumer products and certain off-road equipment. CARB has established passenger vehicle fuel specifications and oversees the functions of local air districts. CARB also conducts or supports research into the effects of air pollution and develops innovative approaches to reducing emissions. CARB is also implementing greenhouse gas emission controls (a topic addressed in Section IV.D, Global Climate Change, of this EIR).

Bay Area Air Quality Management District. The BAAQMD is a local air district having jurisdiction over much of the nine-county Bay Area. BAAQMD is primarily responsible for ensuring that the national and State ambient air quality standards are attained and maintained in the Bay Area. BAAQMD is also responsible for:

- Adopting and enforcing rules and regulations concerning air pollutant sources;
- Issuing permits for stationary sources of air pollutants;
- Inspecting stationary sources;
- Responding to citizen complaints;
- Monitoring ambient air quality and meteorological conditions;
- Awarding grants to reduce motor vehicle emissions; and
- Conducting public education campaigns.

Bay Area Clean Air Plan. A key element in air quality planning is to make reasonably accurate projections of future human activities, particularly vehicle activities that are related to air pollutant emissions. BAAQMD uses population projections prepared by the Association of Bay Area Governments (ABAG) and vehicle use trends prepared by the Metropolitan Transportation Commission (MTC) to formulate future air pollutant emission inventories. These projections are based on estimates from cities and counties. In order to provide the best plan to reduce air pollution in the Bay Area, accurate projections from local governments are necessary. When General Plans are not consistent with these projections, they cumulatively reduce the effectiveness of air quality planning in the

region. Regional clean air planning efforts address both the federal and State ozone standards using the most recent population and vehicle travel projections.

Air quality plans focused on achieving the CAAQS are developed about every 3 years. The plans demonstrate progress toward meeting the State 1-hour ozone standard. The latest plan was adopted in 2010. This plan contains measures to reduce emissions from stationary, area, and mobile sources. The plan is designed to achieve a region-wide reduction of ozone precursor pollutants by implementing all feasible measures. The clean air planning efforts for ozone will also reduce PM₁₀ and PM_{2.5}, since a substantial amount of these air pollutants come from combustion emissions such as vehicle exhaust. The plan proposes expanded programs such as Spare the Air. Spare the Air is designed to educate the public about air pollution in the Bay Area and promote individual behavior changes that improve air quality. Some of these measures or programs rely on local governments for implementation.

In addition, BAAQMD adopts and enforces rules to reduce particulate matter emissions and develops public outreach programs to educate the public to reduce PM₁₀ and PM_{2.5} emissions (e.g., Spare the Night Program). Senate Bill (SB) 656 requires further action by CARB and air districts to reduce public exposure to PM₁₀ and PM_{2.5}. In response, BAAQMD targeted efforts at reductions in wood smoke emissions. BAAQMD has also adopted new rules for internal combustion engines and commercial charbroiling activities.

On July 9, 2008, the Bay Area Air Quality Management District Board adopted Regulation 6 (Particulate Matter and Visible Emissions), Rule 3 (Wood-burning Devices), to reduce the harmful emissions that come from wood smoke. The rule is intended to:

- Restrict wood burning when air quality is unhealthy and a Spare the Air Advisory is issued;
- Place limits on excessive smoke (exceeding 20 percent opacity);
- Require only cleaner burning EPA-certified stoves and inserts be sold;
- Require only cleaner burning EPA-certified stoves and inserts in new construction or remodels;
- Prohibit the burning of garbage and other harmful materials; and
- Require labeling on firewood and solid fuels sold within the Bay Area.

NO_x emissions (found in wood smoke) can form ammonium nitrate that resides in the atmosphere as particulate matter, so reducing NO_x emissions also reduces PM_{2.5} levels. The Bay Area experiences the highest PM₁₀ and PM_{2.5} in winter when wood smoke and ammonium nitrate contributions to particulate matter are highest. Wood smoke is also generally recognized as a carcinogen so these controls would reduce overall regional cancer risk.

(3) Attainment Status. Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. Because pollutants like ozone and PM_{2.5} are not local in nature, attainment designation is usually applied to a region (e.g., the Bay Area). The Bay Area has not attained the following standards:

- Ozone, State 8-hour and 1-hour, federal 8-hour
- PM₁₀, State annual average and 24-hour
- PM_{2.5}, State annual average and federal 24-hour

The region meets all other State and federal standards as listed in Table IV.C-1 above.

b. Existing Climate and Air Quality. This section includes a discussion of air quality in the vicinity of the project site.

(1) Regional Air Quality. The City of Clayton is within the jurisdiction of the BAAQMD, which regulates air quality in the San Francisco Bay Area. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen dramatically. Neither State nor national ambient air quality standards for the following chemicals have been violated in recent decades: nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide, and vinyl chloride. The exceedances of air quality standards that do occur primarily happen during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

Ozone levels, measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by the BAAQMD and other regional, State and federal agencies. The reduction of peak concentrations represents progress in improving public health; however, the Bay Area still exceeds the State 1-hour ozone standard.

Levels of PM₁₀ in the Bay Area have exceeded State standards at least three times per year over the last three years. As such, the Bay Area is considered a nonattainment area for PM₁₀ relative to the State standards, but is considered an unclassified area according to the federal standard. The Bay Area has been designated as an attainment area for federal standards, but is a nonattainment area for PM_{2.5} under State standards.

No exceedances of the State or federal CO standards have been recorded at any of the region's monitoring stations since 1991. The Bay Area is currently considered a maintenance area for State and federal CO standards.

(2) Local Climate and Topography. Clayton's climate is characterized by warm, dry summers and cool, moist winters. The proximity of the San Francisco Bay has a moderating influence on the climate. Mean summer maximum temperatures are in the low to mid 80's. Mean winter temperatures are in the high 30's to low 40's. Clayton lies east of Diablo Valley. The Diablo Valley is bordered in the north by the Carquinez Strait and in the south by the San Ramon Valley. The San Ramon Valley is long and narrow and extends south from Walnut Creek to Dublin. The mountains on the west side of these valleys block much of the marine air from reaching the valleys. During the daytime, there are two predominant flow patterns: an up-valley flow from the north and a westerly flow (wind from the west) across the low elevations of the Coast Range. On clear nights, surface inversions separate the flow of air into two layers: the surface flow and the upper layer flow. When this happens, there are often surface drainage winds that flow down-valley toward the Carquinez Strait.

Pollution potential is relatively high in the Clayton area. Wind speeds in these valleys generally are low. Monitoring stations in Concord report annual average winds speeds of 5 miles per hour (mph). In the summer months, depending on wind direction, ozone and ozone precursors are transported into the Clayton area from other parts of the Bay Area and the Central Valley. On winter evenings, light winds combined with surface-based inversions and terrain that restricts air flow can cause pollutant

levels to accumulate. Clayton Valley can experience high pollution concentrations from motor vehicles, fireplaces, and wood stoves.

(3) Criteria Air Pollutants. Air quality studies generally focus on five pollutants that are most commonly measured and regulated: carbon monoxide (CO), ground level ozone, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and suspended particulate matter (i.e., PM₁₀ and PM_{2.5}). These pollutants are described in more detail below. In Contra Costa County, ozone and particulate matter are the pollutants of greatest concern since measured air pollutant levels exceed State and federal standards.

Carbon Monoxide. CO is a colorless and odorless gas that binds with hemoglobin, thus reducing the blood's oxygen carrying capacity. At low levels, it can cause dizziness and fatigue, and can impair central nervous system functions. At high levels, CO can cause asphyxiation. CO is emitted almost exclusively from incomplete fuel combustion. Recent controls on motor vehicles have dramatically improved urban CO levels. The highest CO concentrations measured in Concord (the closest air monitoring station to the project site) have been well below the national and State ambient standards. This is also the case throughout the Bay Area.

Nitrogen Dioxide. NO₂, a reddish-brown gas, irritates the lungs, and can cause breathing difficulties at high concentrations. Like ozone, NO₂ is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO₂ are collectively referred to as nitrogen oxides (NO_x) and are major contributors to ozone smog formation. NO₂ also contributes to the formation of PM₁₀ and PM_{2.5}. (see discussion of PM₁₀ below). Monitored levels of the pollutant in the Bay Area are well below ambient air quality standards.

Ozone. Ozone serves a beneficial purpose in the upper atmosphere (stratosphere) by reducing harmful ultraviolet radiation. Ozone is formed in the lower atmosphere by a complex series of photochemical reactions that involve precursors, which typically are nitrogen (NO_x) and reactive organic gases (ROG). NO_x and ROG are emitted from a variety of stationary and mobile sources. Near the earth's surface, ozone concentrations build to peak levels during periods of light winds, bright sunshine, and high temperatures. Ozone is the primary component of urban smog found in the western U.S.

When ozone reaches elevated concentrations in the lower atmosphere it harms the human respiratory system and injures vegetation. Short-term ozone exposure can reduce lung function in children, make persons susceptible to respiratory infection, and produce symptoms that cause people to seek medical treatment for respiratory distress. Long-term exposure can impair lung defense mechanisms and lead to emphysema and chronic bronchitis. Most exceedances of the ozone standard in the Bay Area occur in downwind portions of the basin, such as the cities of Livermore, Concord and Gilroy.

Sulfur Oxides. Sulfur oxides, primarily SO₂, are a product of high-sulfur fuel combustion. The main sources of SO₂ are coal and oil used in power stations, in industries, and for domestic heating. SO₂ is a gas that irritates the throat and lungs and can cause acute respiratory symptoms. SO₂ has been reduced to levels well below the State and national standards but further reductions are needed to meet standards for PM₁₀ and PM_{2.5}.

PM₁₀ and PM_{2.5}. Particulate matter pollution consists of very small particles suspended in the air, and includes smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when

gaseous pollutants undergo chemical reactions in the atmosphere. Respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}) represent particulate matter of different sizes. PM₁₀ is less than 10 microns in diameter and PM_{2.5} is 2.5 microns or less in diameter. In the Bay Area, the main sources of PM_{2.5} are diesel fuel combustion, residential fireplaces, and wood stoves. PM₁₀ generation includes all PM_{2.5} sources as well as construction dust, landfills and agriculture, wildfires and brush/waste burning, industrial sources, windblown dust and atmospheric chemical reactions.

PM₁₀ and PM_{2.5} pose a greater health risk than larger-size particles because they can penetrate the human respiratory system's natural defenses and damage the respiratory tract. These compounds can increase asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Whereas larger particles tend to collect in the upper portion of the respiratory system, PM_{2.5} is miniscule and can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, and produce haze.

(4) Air Monitoring Data. The BAAQMD monitors air quality conditions at more than 30 locations throughout the region. The closest monitoring station is located approximately 6.5 miles west of the proposed project site, on Treat Boulevard in the City of Concord. Table IV.C-2 shows the highest air pollutant concentrations measured at the Bay Area stations and the City of Concord station. Table IV.C-3 identifies the annual number of days that ambient air quality standards were exceeded at the City of Concord monitoring station for each criteria pollutant.

Table IV.C-2: Highest Measured Air Pollutant Concentrations

Pollutant	Average Time	Measured Air Pollutant Levels		
		2007	2008	2009
City of Concord				
Ozone (O ₃)	1-Hour	0.105 ppm	0.119 ppm	0.106 ppm
	8-Hour	0.081 ppm	0.080 ppm	0.078 ppm
Carbon Monoxide (CO)	8-Hour	1.41 ppm	1.13 ppm	1.09 ppm
Nitrogen Dioxide (NO ₂)	1-Hour	0.049 ppm	0.050 ppm	0.040 ppm
	Annual	0.011 ppm	0.010 ppm	0.009 ppm
Respirable Particulate Matter (PM ₁₀)	24-Hour	52.4 µg/m³	50.5 µg/m³	32.5 µg/m ³
	Annual	16.4 µg/m ³	17.1 µg/m ³	NA
Fine Particulate Matter (PM _{2.5})	24-Hour	46.2 µg/m³	60.3 µg/m³	39.0 µg/m³
	Annual	8.3 µg/m ³	9.3 µg/m ³	8.3 µg/m ³
Bay Area (Basin Summary)				
Ozone (O ₃)	1-Hour	0.120 ppm	0.141 ppm	0.113 ppm
	8-Hour	0.091 ppm	0.110 ppm	0.094 ppm
Carbon Monoxide (CO)	8-Hour	2.71 ppm	2.48 ppm	2.86 ppm
Nitrogen Dioxide (NO ₂)	1-Hour	0.069 ppm	0.080 ppm	0.069 ppm
	Annual	0.012 ppm	0.012 ppm	0.012 ppm
Respirable Particulate Matter (PM ₁₀)	24-Hour	72.9 µg/m³	78.2 µg/m³	51.7 µg/m³
	Annual	25.6 µg/m³	24.1 µg/m³	20.3 µg/m ³
Fine Particulate Matter (PM _{2.5})	24-Hour	57.5 µg/m³	60.3 µg/m³	45.7 µg/m³
	Annual	10.7 µg/m ³	11.5 µg/m ³	10.1 µg/m ³

Notes:

ppm = parts per million and µg/m³ = micrograms per cubic meter

NA = data not available

Standard violation in **bold**

Source: CARB Air Quality Summaries for 2007, 2008, 2009.

Table IV.C-3: Annual Number of Days Exceeding Ambient Air Quality Standards

Pollutant	Standard	Monitoring Station	Days Exceeding Standard		
			2007	2008	2009
Ozone (O ₃)	National 8-hr	Concord – 2975 Treat Boulevard	1	6	2
	State 1-hr	Concord – 2975 Treat Boulevard	1	3	2
	State 8-hr	Concord – 2975 Treat Boulevard	4	8	5
Fine Particulate Matter (PM ₁₀)	National 24-hr	Concord – 2975 Treat Boulevard	0	0	0
	State 24-hr	Concord – 2975 Treat Boulevard	2	1	0
Fine Particulate Matter (PM _{2.5})	National 24-hr	Concord – 2975 Treat Boulevard	7	3	1
All Other (CO ₂ , NO ₂ , SO ₂)	All Other	Concord – 2975 Treat Boulevard	0	0	0

Source: CARB, 2010.

c. Air Toxics. Besides the criteria air pollutants discussed above there is another group of substances referred to as air toxics. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for long periods. They are regulated at the local, State and federal levels.

Hazardous Air Pollutants (HAPs) are 188 compounds identified by U.S. EPA as known or suspected to cause cancer, serious illness, birth defects, or death. Many of these contaminants originate from human activities such as fuel combustion and solvent use. A U.S. EPA priority list of six HAPs from mobile sources includes: diesel exhaust, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. While vehicle miles traveled in the United States are expected to increase by 64 percent over the period 2000 to 2020, air toxic emissions are expected to decrease substantially (57 percent to 67 percent depending on the contaminant)² from additional pollutant controls imposed on mobile sources.

California developed a program under the Tanner Toxics Act (Assembly Bill (AB) 1807) to identify, characterize and control Toxic Air Contaminants (TACs). Subsequently, AB 2728 incorporated all 188 HAPs into the AB 1807 process. TACs include all HAPs plus other contaminants known to cause morbidity or mortality (cancer risk). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations even near their source (e.g., diesel particulate matter near a freeway).

Particulate matter from diesel exhaust is the predominant TAC in urban air. According to CARB, diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of diesel exhaust health effects a complex scientific problem. Some chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by ARB, and

² Federal Highway Administration, 2006. Interim Guidance on Air Toxic Analysis in NEPA Documents.

are listed as carcinogens either under State Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB reports that diesel exhaust and other vehicle emissions are responsible for much of the overall cancer risk attributed to TACs. Solid material in diesel exhaust, called diesel particulate matter (DPM), was found to create much of that risk. In August 1998, CARB formally identified DPM as a TAC. The particles emitted by diesel engines are coated with unhealthful chemicals. Diesel engines emit particulate matter at a rate about 20 times greater than comparable gasoline engines. Diesel particulate matter is of particular concern since it can be distributed over large regions, thus leading to widespread public exposure.

Over 90 percent of diesel exhaust particles consist of PM_{2.5}. Like other particles of this size, a portion will eventually become trapped within the lungs. The gaseous portion of diesel exhaust also contains TACs. California has adopted a comprehensive program to reduce DPM emissions 85 percent by 2020. The U.S. EPA and CARB adopted low sulfur diesel fuel standards in 2006, which have reduced diesel particulate matter substantially.

Smoke from residential wood combustion can also be a TAC. Localized high TAC concentrations can result when cold stagnant air traps wood smoke near the ground and, with no wind, the pollution can persist for many hours, especially in sheltered valleys. Wood smoke also contains a significant amount of PM₁₀ and PM_{2.5}. Wood smoke is an irritant and is implicated in worsening asthma and other chronic lung problems.

d. City of Clayton General Plan Policies. The following objective and policy from the City's General Plan address air quality and are applicable to the proposed project.

- Safety Objective 14. To promote measures to improve air quality.
- Safety Policy 14a. Cooperate with region and area-wide measures to improve air quality.

2. Impacts and Mitigation Measures

This section identifies the air quality impacts associated with implementation of the proposed project. The subsection begins with the criteria of significance to determine whether a project impact is significant. The latter part of this subsection presents the potential air quality impacts associated with the proposed project and recommends mitigation measures where appropriate.

a. Criteria of Significance. The *BAAQMD CEQA Guidelines*³ include significance thresholds that are specific to the Bay Area. The emission thresholds were established based on the attainment status of the air basin for specific criteria pollutants. The concentration standards were set at a level that protects public health with an adequate margin of safety. Therefore these emission thresholds are regarded as conservative and would tend to overstate an individual project contribution to health risks. Implementation of the proposed project would result in a significant impact on air quality if it would cause any of the following outcomes, during the construction or operation period:

³ Bay Area Quality Management District, 2010.

Construction Period

- Create more than 54 pounds per day of ROG, NO_x or PM_{2.5} (exhaust only) or 82 pounds per day of PM₁₀ (exhaust only).

Operation Period

- Create more than 54 pounds per day of ROG, NO_x or PM_{2.5} (exhaust only), or 10 tons per year, or 82 pounds per day of PM₁₀ (exhaust only) or 15 tons per year.
- Contribute to a violation of the 20.0 ppm 1-hour or 9.0 ppm 8-hour CO standard.
- Locate persons near a source having five or more confirmed odor complaints over 3 years.
- Conflict with or obstruct implementation of an applicable air quality plan.
- Expose sensitive receptors (including residential areas) or the general public to toxic air contaminants in excess of the following thresholds:
 - An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e., chronic or acute) risk greater than 1.0 hazard index from a single source; or
 - An incremental increase of greater than 0.3 μg/m³ in annual average PM_{2.5} from a single source.

Generally, if a project results in an increase in ROG, NO_x, or PM that exceeds the significance criteria, then it would also contribute considerably to a significant cumulative effect. For projects that would increase ROG, NO_x, or PM emissions greater than the levels cited above, the cumulative effect is evaluated for consistency with the regional Clean Air Plan.

b. Less-Than-Significant Air Quality Impacts. Implementation of the project would result in the following less-than-significant air quality impacts.

(1) Odors. During construction, the various diesel powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the project area. Once constructed, the proposed project is not expected to generate odors. Other than the small-scale restaurant uses in downtown Clayton, there are no other known odor sources in the project site vicinity that would affect sensitive receptors. Project-related odor impacts would be considered a less-than-significant impact.

(2) Operational Impacts - Criteria Pollutants. As previously noted, the Bay Area does not meet standards for ozone and respirable particulate matter. The area has attained State and federal ambient air quality standards for all other pollutants. Emissions associated with the project were predicted using the URBEMIS2007 air quality model (Version 9.2.4) recommended for use by BAAQMD. This model is the most current air quality model available in California for estimating emissions associated with land development projects.

According to the transportation analysis (see Section IV.B, Transportation, Circulation, and Parking), two separate types of traffic patterns would occur as part of the proposed project. The first is weekday travel, and the second is for trips generated on Sundays. Based on trip generation estimates from the project transportation analysis, the air quality analysis uses an approach that is protective of health, assuming that all motor vehicle travel (even mid-week) would occur at the higher Sunday rate.

Average trip distance was adjusted based on data on church member demographics that were provided by the project applicant. The weighted trip distance used in URBEMIS was 5.9 miles.

The daily emissions associated with operation of the project are identified in Table IV.C-4 for ROG and NO_x (ozone precursors) and particle matter exhaust (PM₁₀ and PM_{2.5}). The BAAQMD thresholds of significance are shown. Due to the limited amount of parking available for the project, additional vehicle emissions could be generated by vehicles circling the project area in search of a parking spot. The URBEMIS results do not account for this potential emission source; however, the calculated vehicle emissions for this project are well below the BAAQMD thresholds of significance and any additional emissions generated from parking would not be so substantial as to cause the threshold to be exceeded. In addition, pollutant emissions associated with parking-related congestion would tend to diminish over time, as Church members learn where parking is readily available during peak periods. (Mitigation Measure TRANS-1 (in Section IV.B, Transportation, Circulation, and Parking) would require the project sponsor to implement a comprehensive parking management plan that would be expected to reduce parking-related congestion.) Because the projected emissions fall well below the established thresholds, the proposed project would not have a significant effect on regional air quality. URBEMIS output sheets are included in Appendix C.

Table IV.C-4: Project Operation Regional Emissions in Pounds Per Day

	Reactive Organic Gases	Nitrogen Oxides	PM ₁₀	PM _{2.5}
Daily Emissions (assuming Sunday traffic rates)	3.8	3.9	6.1	1.1
BAAQMD Significance Threshold	54.0	54.0	82.0	54.0
Exceed?	No	No	No	No

Source: LSA Associates, Inc., 2010.

(3) Operational Emissions – Localized CO Impacts. The BAAQMD has established a screening methodology that is protective of human health, which indicates whether a proposed project would result in significant CO emissions. According to the BAAQMD’s CEQA Guidelines, the proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

- 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.
- The project 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., a tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway).

The proposed project would not conflict with the Contra Costa County Transportation Authority’s transportation plan or other agency plans. In addition, traffic volumes on roadways in the project site vicinity are less than 10,000 vehicles per hour and the project is expected to generate a maximum of 354 peak hour trips (see Section IV.B, Transportation, Circulation, and Parking, for additional detail). Therefore, the proposed project would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour and would not result in localized CO concentrations that would exceed State or federal standards.

(4) **Toxic Air Contaminant Sources.** Based on the proposed land uses that would be developed as part of the project (church, administrative/office, retail, and teen center uses), the proposed project would not be a significant source of TACs or particulate matter emissions. The project site is within 1 mile of two toxic emission sources holding permits from the BAAQMD. The nearest boundary of the CEMEX Materials plant at 515 Mitchell Canyon Road is approximately 4,300 feet south-southwest of the project site. The cancer risk for this plant is listed by BAAQMD as 292 in one million. Pacific Bell has a 225 kilowatt diesel generator located at 6191 High Street. This site is about 1,000 feet southeast of the project site. The cancer risk for this generator is listed by BAAQMD as 10.5 in one million. BAAQMD guidance indicates that a significant impact may occur if:

- The highest emitting source is within 1,000 feet of the proposed new receptor; and
- For cumulative impacts, a major source with cancer risk greater than 100 in one million is within 1,000 feet of the new receptor.

For the proposed project, the greatest TAC source (CEMEX) is over 1,000 feet away and the nearest source (Pacific Bell) is also 1,000 feet away. In addition, the proposed project is a church that would not be considered a sensitive air quality receptor; therefore, the impact on the project from existing toxic air contaminant sources would be considered less than significant.

(5) **Clean Air Plan Consistency.** The Bay Area 2010 Clean Air Plan (CAP) discussed previously is the relevant regional clean air plan and is used to evaluate a project's potential cumulative air quality impacts. As discussed above, the project would not generate a significant level of criteria pollutant emissions and therefore would not make a considerable cumulative contribution to regional air pollution levels. In addition, because the project would be developed on an already-developed site in the Clayton Town Center, the project would not conflict with the strategies listed in the 2010 CAP for reducing vehicle emissions. Therefore, the project would not conflict with the 2010 CAP.

c. **Significant Air Quality Impacts.** Implementation of the project would result in the following significant air quality impact.

Impact AIR-1: Construction of the proposed project would generate air pollutant emissions that could expose sensitive receptors to substantial pollutant concentrations. (S)

CARB has identified the following groups who are most likely to be affected by air pollution: children under 14 years, the elderly (over 65 years), athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and open space. The closest sensitive receptors to the project site are Mt. Diablo Elementary School and the Kinder Care Learning Center. The elementary school is located approximately 250 feet west of the project site and Kinder Care is located approximately 125 feet from the eastern portion of the site. A small outdoor play area is located adjacent to the building housing Kinder Care, facing the project site.

During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by excavation, grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, ROG, directly-emitted particulate matter (PM_{2.5} and PM₁₀), and toxic air contaminants such as diesel exhaust particulate matter.

Site preparation and project construction would involve demolition of the existing structures on the project site, clearing, cut-and-fill activities, grading, and building activities. Construction-related effects on air quality from the project would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils on the site. If not properly controlled, these activities would generate PM₁₀, PM_{2.5}, CO, SO₂, NO_x, and ROG. Sources of fugitive dust would include disturbed soils at the construction sites and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction sites.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, VOCs and some soot particulate (PM_{2.5} and PM₁₀) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction sites.

Construction of the proposed project would occur in two to three phases. Construction emissions were estimated for the project using the URBEMIS model, as recommended by the BAAQMD. Construction-related emissions are presented in Table IV.C-5.

Table IV.C-5: Project Construction Emissions in Pounds Per Day

Project Construction	ROG	CO	NO _x	Exhaust PM _{2.5}	Fugitive Dust PM _{2.5}	Total PM _{2.5}	Exhaust PM ₁₀	Fugitive Dust PM ₁₀	Total PM ₁₀
Maximum Daily Emissions	46.4	27.6	44.0	2.5	2.0	4.5	2.7	9.6	12.3
BAAQMD Thresholds	54.0	NA	54.0	54.0	BMP	NA	82.0	BMP	NA
Exceed Threshold?	No	NA	No	No	NA	NA	No	NA	NA

Notes:

NA = Not Applicable, the BAAQMD does not have threshold.

BMP = Best Management Practices

Source: LSA Associates, 2010.

Under windy conditions, construction dust could be generated at levels that would create an annoyance to nearby properties. The BAAQMD recommends the implementation of Best Management Practices to reduce construction impacts to a less-than-significant level. Applying water or other soil stabilizers to control dust can reduce emissions by 50 percent or more. The BAAQMD has established standard measures for reducing the fugitive dust emissions (PM₁₀).

Mitigation Measure AIR-1: Consistent with guidance from the BAAQMD, the following actions shall be required of construction contracts and specifications for the project.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

- All visible mud or dirt tracked-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.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- 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.
- 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 reminding workers of this requirement shall be provided at all access points.
- 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.
- A publicly visible sign shall be posted with the telephone number and person to contact at the City of Clayton regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's 24-hour phone number shall also be visible to ensure compliance with applicable regulations. (LTS)

With implementation of Mitigation Measure AIR-1, construction emissions would be considered less than significant.

d. Pollutants and Public Health. Despite great progress in improving air quality, approximately 146 million people nationwide lived in counties with pollution levels above the national standards in 2002. Out of the 230 nonattainment areas identified during the 1990 Clean Air Act Amendment designation process, 124 areas remain under nonattainment status or designation today. In these nonattainment areas, however, the severity of air pollution episodes has decreased. Air quality in the San Francisco Bay Area Air Basin in the past 20 years has improved steadily and dramatically, even with the substantial increase in population, vehicles, and other sources of air pollutants.

Long-term exposure to elevated levels of criteria pollutants could result in potential health effects. However, as stated in the thresholds of significance, emission thresholds established by the air district are used to manage total regional emissions within an air basin, based on the air basin attainment status for criteria pollutants. These emission thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations that may affect or delay the projected attainment target year for certain criteria pollutants.

Because of the protective nature of the thresholds and the basin-wide context of individual project emissions, there is no direct correlation of a single project to localized health effects. One individual project does not necessarily result in adverse health effects for residents in the project vicinity.

Based on the above discussion, the potential for an individual project to significantly deteriorate regional air quality or contribute to significant health risk is small, especially when the emission thresholds are not exceeded by the project. Because of the overall improvement trend in air quality in

the air basin, it is unlikely the regional air quality or health risk would worsen from the current condition due to emissions from an individual project.

D. GLOBAL CLIMATE CHANGE

This section begins by providing general background information on climate change and meteorology. It then discusses the regulatory framework for global climate change, provides data on the existing global climate setting, and evaluates potential global greenhouse gas emissions associated with the proposed project. Modeled project emissions are estimated based on the expected waste generation, energy consumption and water use of the proposed project. Fuel combusted by motor vehicle trips generated by the proposed project is also accounted and reported as carbon dioxide emissions.

The section then evaluates whether the proposed project could cause a cumulatively considerable contribution to climate change by conflicting with reduction measures under State regulations. The information and analysis provided in this section rely primarily on the Climate Action Team 2006 Final Report, Intergovernmental Panel on Climate Change (IPCC) Assessment Reports, and various California Air Resources Board (ARB) staff reports. Guidance published by the Bay Area Air Quality Management District also provided substantial material. Other related global climate change documents are also cited that provide background information on the impacts of greenhouse gas emissions.

1. Setting

The following discussion provides an overview of global climate change, its causes, and its potential effects. The regulatory framework relating to global climate change is also summarized.

a. Global Climate Change Background. A description of global climate change and its sources is provided below.

(1) Greenhouse Gases and Global Climate Change. Carbon dioxide and other compounds are called greenhouse gases because they allow visible light to pass through but strongly absorb energy in the infrared and near-infrared spectrums. This infrared energy absorption causes the atmosphere to warm. Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose $0.6 \pm 0.2^\circ$ Celsius ($^\circ\text{C}$) or $1.1 \pm 0.4^\circ$ Fahrenheit ($^\circ\text{F}$) in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. Other aspects of the climate are also changing such as rainfall patterns, snow and ice cover, and sea level. The increased amounts of carbon dioxide (CO_2) and other greenhouse gases (GHGs) are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.¹

Naturally occurring GHGs, such as water vapor, are released into the atmosphere by processes such as ocean evaporation. Other naturally-occurring GHGs, such as methane (CH_4), are created by biological process in the guts of termites and by biological decomposition. The production of these gases has been balanced by natural processes that remove them from the atmosphere, and the climate system has been in a relative balance for the past 10,000 years. This balance has changed since the Industrial

¹ The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the naturally occurring greenhouse effect is necessary to keep our planet at a comfortable temperature.

Revolution as human activities have put more GHGs into the atmosphere than natural processes have been able to absorb and remove.

The gases that are recognized by the U.S. Environmental Protection Agency (EPA) as principal contributors to human-induced global climate change are:

- carbon dioxide (CO₂)
- methane (CH₄)
- nitrous oxide (N₂O)
- hydroflourocarbons (HFCs)
- perflourocarbons (PFCs)
- sulfur hexaflouride (SF₆)

Over the last 200 years humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect. According to the EPA, National Oceanic and Atmospheric Administration (NOAA), and other scientific organizations, this build-up is causing global warming. While manmade GHGs include naturally-occurring compounds such as CO₂, CH₄, and N₂O, some gases, like HFCs, PFCs and SF₆ are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes. For the purposes of this EIR the term “GHGs” will refer collectively to the gases listed above only.

These gases vary considerably in terms of their Global Warming Potential (GWP), a comparison of the ability of each greenhouse gas to trap heat in the atmosphere relative to a reference gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). By international convention, the GWP of each gas is measured relative to CO₂, the most abundant GHG. The GWP for a particular greenhouse gas is the ratio of heat trapped by one unit mass of the greenhouse gas to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂e). Table IV.D-1 shows the GWPs for each type of GHG.

Table IV.D-1: Global Warming Potentials

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide	50-200	1
Methane	12	25
Nitrous Oxide	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF ₄)	50,000	7,390
PFC: Hexafluoromethane (C ₂ F ₆)	10,000	12,200
Sulfur Hexafluoride (SF ₆)	3,200	22,800

Source: IPCC, 2007. *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

The following discussion summarizes the characteristics of the GHGs listed above.

Carbon Dioxide (CO₂). In the atmosphere carbon generally exists in its oxidized form as CO₂. Natural sources of CO₂ include the respiration of animals and plants, volcanic outgassing, and decomposition of organic matter. Human caused sources of CO₂ include burning fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO₂. Consequently the gas is building up in the atmosphere by about 3 parts per million (ppm) each year. Since the advent of the Industrial Revolution (about 1750) ambient CO₂ levels have increased from about 275 ppm to 388 ppm today; a change of about 30 percent.

Methane (CH₄). Methane is produced when organic matter decomposes in environments that are low in oxygen. Natural sources include wetlands, termites, and oceans. Garbage decomposing in landfills creates the majority of human-generated CH₄ emissions in the State and nationally. Agricultural processes at dairies and rice cultivation are also significant sources of CH₄ in California.

Total planetary annual CH₄ emissions are approximately 500 million tons, with man-made emissions accounting for the majority. As with CO₂, the major removal process of atmospheric CH₄ – a chemical breakdown in the atmosphere – cannot keep pace with source emissions, and CH₄ concentrations in the atmosphere are increasing. The amount of atmospheric CH₄ has increased since the start of the industrial period from 0.7 ppm to 1.75 ppm today.²

Nitrous Oxide (N₂O). Nitrous oxide is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N₂O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Chemical fertilizers also degrade into N₂O, and conventional agriculture is a major source of N₂O.

Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF₆). HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.³ PFCs and SF₆ are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry leads to greater use of PFCs. HFCs, PFCs, and SF₆ accounted for about 3.5 percent of man-made GHG emissions (CO₂e) in California in 2002.

The latest projections, based on state-of-the art climate models, indicate that temperatures in California are expected to rise 3 to 10.5°F by the end of the century.⁴ Man-made GHGs persist for a

² Schmidt, Gavin, 2004. *Methane: A Scientific Journey from Obscurity to Climate Super-Stardom*. National Aeronautics and Space Administration, Goddard Institute for Space Studies. Website: www.giss.nasa.gov/research/features/200409_methane/. Accessed November, 2010.

³ The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

⁴ California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California*. July.

long time in the atmosphere, accumulate over time, and are generally well-mixed in the atmosphere. Thus, a specific point of emission usually cannot be tied to a discrete global warming impact.

Changes to the global climate system, ecosystems, and the environment of California could include but are not limited to:

- Loss of sea ice and mountain snow pack, resulting in higher sea levels and higher sea surface evaporation rates. There would be a corresponding increase in water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;
- Rise in global average sea level from thermal expansion and melting in the Greenland and Antarctic ice sheets. Melting ice also reduces solar reflectance (albedo) and increases the ocean and terrestrial solar energy heat absorption;
- Weather changes include different rain patterns, ocean salinity, and wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and stronger tropical cyclones because of warmer ocean water;
- Decline of the Sierra snowpack, which accounts for approximately half of the surface water storage in California, by 70 percent to 90 percent over the next 100 years;
- Increase in the number of days conducive to ozone formation by 25 to 85 percent (depending on the future temperature scenario) in high ozone areas such as Los Angeles and the San Joaquin Valley (the San Francisco Bay Area would also be affected);
- Sea levels are projected to rise up to 6 feet in the coming century,⁵ resulting in a high potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems. Many areas on the margin of the San Francisco Bay cannot be protected by levees and will be subjected to inundation; and
- Increased levels of ocean acids, because CO₂ dissolved in water is carbonic acid. The ocean uptakes about 70 percent of all CO₂ currently emitted into the atmosphere. According to the EPA, "...marine snails, shrimp and crabs will be adversely affected by ocean acidification. Other groups of marine organisms will be impacted in ways that are not yet fully understood but could significantly impact ecosystem structure and productivity."⁶ Ocean acidification is not a result of climate change but of CO₂ emissions.

(2) Emissions Inventories. An emissions inventory quantifies the primary human-generated sources and sinks of GHGs. It accounts for the amount of GHGs emitted to or removed from the atmosphere over a specific period of time by source categories (e.g., transportation). An inventory is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, California, and local GHG emission inventories.

⁵ California Climate Change Center, 2009. *The Impacts of Sea Level Rise on the California Coast*, CEC-500-2009-024-f. May.

⁶ U.S. Environmental Protection Agency, 2010. *Climate Change – Science, Future Ocean Acidification*. Website: www.epa.gov/climatechange/science/futureoa.html. Accessed November, 2010.

Global Emissions. Worldwide emissions of GHGs in 2004 were 30 billion tons of CO₂e per year⁷ or about 4.3 tons/year/person (including both ongoing emissions from industrial and agricultural sources, but excluding emissions from land-use changes).

U.S. Emissions. In 2004, the United States emitted about 8 billion tons of CO₂e or about 25 tons/year/person. Of the four major sectors nationwide – residential, commercial, industrial and transportation – transportation accounts for the highest fraction of GHG emissions (approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion. Between 1990 and 2006, total U.S. GHG emissions increased approximately 15 percent.⁷

State of California Emissions. According to ARB emission inventory estimates, California emitted approximately 480 million metric tons⁸ of CO₂e emissions in 2004.⁹ This large number is due primarily to the sheer size of California compared to other states. By contrast, California has the fourth lowest per-capita carbon dioxide emission rate from fossil fuel combustion in the country, due to the success of its energy efficiency and renewable energy programs. State commitments have lowered the GHG emissions growth rate by more than half of what it would have been otherwise.¹⁰ ARB staff has projected 2020 unregulated GHG emissions, or the emissions that would be expected without any GHG reduction actions, at 596 million metric tons (MMT) of CO₂e.

Bay Area Emissions. Transportation created over half of the Bay Area's 85 million tons of GHG emissions in 2002. Industrial and commercial sources create about 25 percent of total GHG emissions. Domestic sources (e.g., home water heaters, furnaces, etc.) account for about 11 percent of emissions, followed by power plants at 7 percent. Oil refining currently accounts for approximately 6 percent of the total GHG emissions.¹¹

City of Clayton Emissions. At the time this EIR was prepared, the City of Clayton had not prepared a GHG emission inventory. Average percentages for each emission category would probably be close to those for the Bay Area as a whole.

b. Regulatory Framework. The regulatory framework and other governmental activities addressing GHG emissions and global climate change are discussed in this section.

⁷ United Nations Framework Convention on Climate Change (UNFCCC), 2007. *Sum of Annex I and Non-Annex I Countries Without Counting Land-Use, Land-Use Change and Forestry (LULUCF). Predefined Queries: GHG total without LULUCF (Annex I Parties)*. Bonn, Germany. Website: unfccc.int/ghg_emissions_data/predefined_queries/items/3814.php. Accessed May 2.

⁷ U.S. Environmental Protection Agency, 2008. *The U.S. Greenhouse Gas Emissions and Sinks: Fast Facts*. Website: www.epa.gov/climatechange/emissions/downloads/2008_GHG_Fast_Facts.pdf.

⁸ A metric ton is 1000 kilograms, equivalent to approximately 1.1 tons.

⁹ California Air Resources Board, 2008. *Greenhouse Gas Inventory Data - 1990 to 2004*. Website: www.arb.ca.gov/cc/inventory/data/data.htm. Accessed November, 2008.

¹⁰ California Energy Commission, 2007. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report*, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007 update to that report.

¹¹ Bay Area Air Quality Management District, 2006. *Source Inventory of Bay Area Greenhouse Gas Emissions*. November.

(1) State Regulations. Recent state law requires projects to evaluate potential emissions of greenhouse gases under the California Environmental Quality Act (CEQA). According to California's Office of the Attorney General and other State guidance, global climate change can be considered an "effect on the environment" and an individual project's incremental contribution to global climate change can have a cumulatively considerable impact.

In a response to the transportation sector's significant contribution to California's CO₂ emissions, Assembly Bill 1493 (AB 1493, Pavley) was enacted in 2002. AB 1493 requires ARB to set GHG emission (essentially fuel economy) standards for 2009 passenger vehicles and light trucks and subsequent model years. When fully phased-in, the near-term (2009 to 2012) standards would reduce GHG emissions approximately 22 percent compared to the 2002 fleet. The midterm (2013 to 2016) standards would provide a 30 percent reduction. The U.S. Department of Transportation has recently adopted similar measures (fleet fuel economy) for the rest of the country.

In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

California's major initiative for reducing GHG emissions is Assembly Bill 32 (AB 32), the "*Global Warming Solutions Act*," passed in 2006. This law aims at reducing GHG emissions to 1990 levels by 2020, a reduction of approximately 30 percent, and then an 80 percent reduction below 1990 levels by 2050, essentially the same goals as EO S-3-05. The ARB has established the State 1990 baseline CO₂e emissions at 427 million metric tons (MMT). This means the State must reduce emissions by 169 MMT below expected business-as-usual emissions by 2020.

Senate Bill 97 (SB 97, 2007) required the Governor's Office of Planning and Research (OPR) to modify the existing *CEQA Guidelines* to describe how lead agencies should evaluate and mitigate a project's GHG emissions. On December 30, 2009, the Natural Resources Agency adopted amendments to the *CEQA Guidelines* related to climate change. OPR published the amendments on January 1, 2010, and they became effective on March 18, 2010.

SB 375, signed into law in 2008, provides emissions reduction goals and incentives for local governments and developers to adopt climate-friendly growth patterns. SB 375 directed ARB to develop regional emission reduction targets. Regional planning agencies are also required to submit land use and transportation plans to meet these GHG targets.

Additionally, SB 375 provides incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The bill exempts home builders from certain CEQA requirements if they propose projects consistent with the new sustainable communities strategies. SB375 is also intended to encourage the development of additional alternative transportation options to promote healthy lifestyles and reduce traffic congestion.

(2) Local Policies. The City of Clayton General Plan does not include policies that specifically address global climate change. However, the adopted goals and policies listed in Table IV.D-2 support GHG reduction strategies.

Table IV.D-2: General Plan Goals, Objectives, and Policies that Would Reduce GHG Emissions

Land Use Goal 5	To provide a comprehensive, integrated, greenbelt system, which includes bicycle, equestrian and walking paths, and is connected to regional systems.
Land Use Goal 6	To encourage a pedestrian-oriented community with areas of open space and recreational facilities for public use.
Circulation Objective 4	To plan an efficient network of streets and trails which will link all neighborhoods of the community and allow safety and economy of movement.
Circulation Objective 7	To enhance the City’s system of pedestrian, equestrian and bicycling paths and trails.
Circulation Objective 10	To support the establishment and expansion of public transit and carpools.
Circulation Policy 10a	Participate in County-wide and area carpool/van pool programs.
Circulation Policy 10b	Assist in location of permanent and temporary park and ride locations.
Circulation Policy 10c	Provide free City application processing for park and ride lots on vacant parcels.
Open Space/ Conservation Goal	To maintain a system of active open space along stream channels and passive open space within hillsides as a means to preserve the rural character of the community.
Open Space/ Conservation Objective 3	To establish open space conservation designations to preserve natural resources, to manage resources, to provide for outdoor recreation, to promote healthy and safety and to ensure orderly growth.
Safety Objective 14	To promote measures to improve air quality.
Safety Policy 14a	Cooperate with region and area-wide measures to improve air quality.
Safety Policy 14b	Promote Transportation Systems Management (TSM) as a means to reduce single occupant vehicle travel.

Source: City of Clayton General Plan, 2000.

2. Impacts and Mitigation Measures

This section evaluates impacts to global climate change that could result from implementation of the proposed project. An individual development project cannot generate large enough quantity of GHG emissions to affect global climate change; therefore, global climate change impacts of the proposed project are discussed in the context of cumulative impacts. This is the approach recommended by the BAAQMD. This section begins with the criteria of significance, which establish the thresholds to determine whether an impact is significant. The latter part of this section addresses the project’s emission of GHGs, and mitigation measures are identified as appropriate.

a. Criteria of Significance. The BAAQMD has adopted GHG Thresholds of Significance in its CEQA Guidelines (June 2010). The BAAQMD has not adopted thresholds for construction emissions but recommends quantification and disclosure of these emissions. Local agencies are encouraged to adopt feasible mitigation measures to reduce construction emissions, where feasible. For operational emissions, the project would result in significant adverse impacts on global climate change if one of the following three criteria is exceeded:

- Result in operational-related greenhouse gas emissions of 1,100 metric tons of CO₂e per year;
- Result in operational-related greenhouse gas emissions that exceed 4.6 metric tons of CO₂e per service population (residents plus employees) per year; or
- Conflict with a qualified greenhouse gas reduction strategy.

b. Methodology. Construction and operation of the proposed project would generate GHG emissions. Construction emissions are typically produced over a short time (one year), compared to emissions from operations. For a typical new building, more than 80 percent of the total energy consumption takes place during the use of building and less than 20 percent is consumed during construction.¹² As of yet, there is no study that quantitatively assesses all of the GHG emissions associated with each phase of the construction and use of an individual development.

This document uses two models recommended by the BAAQMD. URBEMIS v9.2.4 was used to calculate construction GHG emissions. The BGM model is the tool recommended by BAAQMD to calculate expected operational GHG emissions. BGM uses files generated by URBEMIS as inputs to calculations for transportation, solid waste, water delivery, and other emission sources. The outputs from these two models are summarized in this report and complete model runs are included in Appendix D.

The following activities associated with the proposed project could directly or indirectly contribute to the generation of GHG emissions:

- **Removal of Vegetation:** Removing vegetation for construction results in a loss of the carbon sequestration provided by plants. However, planting additional vegetation would provide additional carbon sequestration and lower the carbon footprint of the project.
- **Construction Activities:** During construction of the project, GHGs would be emitted from fuel combusted by construction equipment. CO₂ also would also be generated by diesel and gasoline burned by worker and delivery vehicles.
- **Gas, Electric and Water Use:** Natural gas use results in the emissions of two GHGs: CH₄ (the major component of natural gas) and CO₂, from the combustion of the fuel. Electricity use can indirectly create GHGs when power comes from fossil fuels. California's water conveyance system is energy intensive. Preliminary estimates indicate that the total energy used to pump and treat this water exceeds 6.5 percent of the total electricity used in the State per year.¹³ Thus, the BGM model takes into account indirect emissions from electricity required for water pumping.
- **Solid Waste Disposal:** Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling uses diesel equipment for transporting and managing solid waste. It also releases CH₄ from anaerobic decomposition of organic materials. As noted in Table IV.D-1, CH₄ is 25 times more potent a GHG than CO₂. However, landfill CH₄ can also be captured and used to fuel electric generators or power vehicles. In addition, many materials in landfills do not

¹² United Nations Environment Programme, 2007. *Buildings and Climate Change: Status, Challenges and Opportunities*, Paris, France.

¹³ California Energy Commission, 2004. *Water Energy Use in California* (online information sheet), Sacramento, CA. Website: energy.ca.gov/pier/iaw/industry/water.html. Accessed July 24, 2007.

decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.

- **Motor Vehicle Use:** Transportation associated with the proposed project would create GHG emissions through the combustion of fossil fuels.

The BAAQMD CEQA guidance suggests that lead agencies should calculate or estimate emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, and construction activities. GHG emissions generated by the proposed project would predominantly consist of CO₂.

Construction activities that produce GHG emissions include grading, trenching, hauling materials to and from the site, and asphalt paving. To a lesser degree, motor vehicles transporting the construction crew also create CO₂. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change; therefore, averages are presented here. Materials used to build the project require energy to produce and this usually creates GHG emissions. Portland cement production is a major greenhouse gas emitter, as production not only requires large amounts of energy, but also releases CO₂ as lime is heated to make the cement. Because the specific plans for project buildings are conceptual, this analysis does not calculate emissions from the building material sector.

c. Less-Than-Significant Global Climate Change Impacts. The existing structure on the site (a building formerly known as the Pioneer Inn), is currently used for administrative and gathering space by the Clayton Community Church. It comprises approximately 6,800 square feet of interior space. Under the proposed project the existing structure would be demolished and four new buildings would be built. The combined area of these buildings is approximately 42,000 square feet of interior space. In addition 54 parking spaces would be provided on the project site, in an on-site lot. The expected GHG emissions generated during the construction phase from both heavy equipment and worker trips is shown in Table IV.D-3. Data about the duration and characteristics of project construction activities were developed based on materials provided by the project applicant.

Table IV.D-3: Expected Construction Emissions of Carbon Dioxide

Activity	Expected Time (weeks)	CO ₂ Emissions (metric tons/year)
Fine Grading	6.0	32.5
Asphalt	2.0	5.7
Building Off Road Diesel	32.5	65.8
Building Vendor Trips	32.5	5.0
Building Worker Trips	32.5	11.5
Total Building Activities	32.5	82.3
Total Construction	52.0	120.5

Source: LSA Associates, Inc., 2010. URBEMIS 2007 v9.2.7 used to calculate emissions. Total may vary slightly due to independent rounding.

As previously noted, operational emissions are generated from a variety of sources. The BAAQMD has developed the BGM model that includes specific use factors for the San Francisco Bay region. Such factors include data about water, electricity, solid waste, transportation, natural gas and small miscellaneous sources such as landscape maintenance equipment. Detailed plans for project

sustainability features are not available at the time of this writing but the following assumptions were made for modeling purposes, based on the application materials submitted by the project sponsor:

- The buildings would use “Cool Roofs” which reflect the sun’s heat and reduce air conditioning demand, hence reducing electricity use by 5000 kwh/year. Cool roofs would also reduce natural gas emissions by 2 percent.
- Drought tolerant landscaping would be incorporated, which would reduce water demand by 10 percent.
- The proposed project would incorporate low flush toilets which would reduce indoor water use by 2 percent.
- All proposed project buildings would exceed the California Building Code’s Title 24 energy standard by at least 15 percent.
- The proposed project would use locally produced and/or manufactured building materials for construction of the project.
- The construction contractor would recycle/reuse demolished construction material.
- The proposed project would use “Green Building Materials.” These materials are resource efficient, and recycled and manufactured in an environmentally friendly way, including using low Volatile Organic Compound materials.

The modeling also evaluated the project site in relation to the surrounding community. The location of a project can either increase or reduce transportation emissions compared to the State average. The proposed project site is close to restaurants and other locally serving commercial land uses. There are approximately 125 residences with ½ mile of the site. The project site is well served by sidewalks and bike lanes/paths. Traffic volumes in the area are low, which also facilitates walking. Combined, these factors would reduce project emissions by about 15 percent below what is expected for areas not having these attributes.

The BGM model output is summarized in Table IV.D-4 below. Complete model run outputs are provided in Appendix D.

Table IV.D-4: Expected Annual Emissions of Carbon Dioxide During Project Operation

Source	Project (w/o Green Design Features) Baseline CO ₂ e (metric tons/year)	Project (w/Green Design Features) Baseline CO ₂ e (metric tons/year)
Transportation	425.67	361.19
Area Source	0.23	0.23
Electricity	138.50	116.17
Natural Gas	61.03	51.96
Water & Wastewater	4.12	3.95
Solid Waste	35.37	35.37
Total	664.91	568.87

Note: As a reasonable worst case scenario, the modeling conducted as part of this analysis is based on the assumption that Sunday traffic volumes, which would be higher than weekday and Saturday volumes, occur every day. Thus projected transportation emissions would likely overstate the actual emissions of the project by a substantial margin.

The BAAQMD does not have specific criteria for defining construction period impacts or emission reduction measures other than using Best Management Practices to minimize emissions. These practices are included as mitigation in Section IV.C, Air Quality section.

As noted above, the air district has three criteria for operation phase impacts to determine significance. The City of Clayton does not have a qualified greenhouse gas reduction strategy, so this criterion cannot be used. The proposed project would not directly generate a new residential population, so the service population criterion would not be appropriate to use.

The proposed project, including sustainability features, would create about 569 metric tons of CO₂e, which is less than 1,100 metric tons per year of CO₂e. Therefore, the project's contribution of GHGs would be considered less than significant.

d. Significant Global Climate Change Impacts. Development of the proposed project would not result in any significant global climate change impacts.

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E. NOISE

This section describes existing noise conditions in the vicinity of the project site, describes criteria for determining the significance of noise impacts, and estimates noise levels that would result from implementation of the proposed project. Where appropriate, mitigation measures are recommended to reduce noise impacts.

1. Setting

The setting section begins with an introduction to several key concepts and terms that are used in evaluating noise. It then explains the various agencies that regulate the noise environment in the City of Clayton and summarizes key standards that are applied to proposed development. This setting section concludes with a description of current noise sources that affect the project area and the noise conditions that are experienced in the project site vicinity.

a. Characteristics of Sound. Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Table IV.E-1 contains a list of typical acoustical terms and definitions.

Most of the sounds that we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency combine to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all the frequencies of a sound in accordance with a weighting that reflects the facts that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called “A” weighting, and the decibel level so measured is called the A-weighted sound level (dBA). In practice, the level of a sound source is measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. Table IV.E-2 shows representative outdoor and indoor A-weighted sound levels.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources that creates a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_{01} , L_{10} , L_{50} , and L_{90} , are commonly used. They are the A-weighted noise levels equaled or exceeded during 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period. A single number descriptor called the L_{eq} is also widely used. The L_{eq} is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. Most people sleep at night and are very sensitive to noise intrusion at that time. To account for human sensitivity to nighttime noise levels, a descriptor, L_{dn} (day/night average sound level), was developed. The L_{dn} divides the 24-hour day into the “daytime” of 7:00 a.m. to 10:00 p.m. and the “nighttime” of 10:00 p.m. to 7:00 a.m. The nighttime noise level is weighted 10 dB higher than the daytime noise level. The Community Noise Equivalent Level (CNEL) is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours).

Table IV.E-1: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of level that denotes the ratio between two quantities proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L ₀₁ , L ₁₀ , L ₅₀ , L ₉₀	The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L _{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L _{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L _{max} , L _{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Harris, Cyril M., 1998. *Handbook of Acoustical Measurements and Noise Control*.

Table IV.E-2: Typical A-Weighted Sound Levels

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments
Near Jet Engine	140	Deafening
Civil Defense Siren	130	Threshold of pain
Hard Rock Band	120	Threshold of feeling
Accelerating Motorcycle at a Few Feet Away	110	Very loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very loud
Ambulance Siren; Food Blender	95	Very loud
Garbage Disposal	90	Very loud
Freight Cars; Living Room Music	85	Loud
Pneumatic Drill; Vacuum Cleaner	80	Loud
Busy Restaurant	75	Moderately loud
Near Freeway Auto Traffic	70	Moderately loud
Average Office	60	Moderate
Suburban Street	55	Moderate
Light Traffic; Soft Radio Music in Apartment	50	Quiet
Large Transformer	45	Quiet
Average Residence Without Stereo Playing	40	Faint
Soft Whisper	30	Faint
Rustling Leaves	20	Very faint
Human Breathing	10	Very faint

Source: Compiled by LSA Associates, Inc., 2010.

Noise impacts can be organized into three categories. The first is audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 dBA or greater, since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dBA. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is a change in noise level of less than 1.0 dBA that is inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire human system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the ear, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling.

b. Noise Regulatory Framework. The following section summarizes the regulatory framework established by the City of Clayton. The City of Clayton addresses noise in the Noise Element of the General Plan¹ and in the Municipal Code.²

The City's objectives and policies provide a framework to mitigate physically harmful levels of noise (70 L_{dn} and above) to below-harmful levels and to levels of minimum annoyance (below 60 L_{dn}) where feasible. According to policies in the Noise Element, the City requires that the noise environment in existing residential areas be protected. The City calls for mitigation measures for construction projects in critical noise areas. Recommendations for changes in elevations, setbacks, construction of effective noise barriers, and any other items necessary to achieve the standard of less than 60 dBA in residential yard areas may be identified by the City.

The City further addresses noise in the Municipal Code in section 15.01.101. The ordinance requires all construction activities within the City and the on-site maintenance and servicing of construction equipment to occur only between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday. Any construction outside of this limited time is strictly prohibited unless authorized by the City Engineer or designee or by project conditions of approval. The City also addresses noise in section 9.30 of the Municipal Code, including Ordinance 9.30.040, which prohibits sound equipment from operating at noise levels audible at a distance of 50 feet from the nearest property line or building in which the equipment is located. This ordinance also prohibits the operation of electrical equipment, such as heating and air conditioning systems, from producing excessive noise levels at nearby residences between the hours of 10:00 p.m. and 7:00 a.m. In addition, the City prohibits, under Ordinance 9.30.070, the creation of noise on a street, sidewalk or public place adjacent to a church that would unreasonably interfere with the working of the institution.

c. Existing Noise Environment. The project site comprises approximately 2.3 acres (gross) located in downtown Clayton, in the vicinity of smaller-scale retail, restaurant, and office uses. Clayton Road is located to the north of the site. Beyond Clayton Road are City civic facilities,

¹ Clayton, City of, 2000. *Clayton General Plan, Section 8: Noise Element*. March.

² Clayton, City of, 2010. *City of Clayton Municipal Code*.

including City Hall, the Police Department, the Maintenance Department, and the Clayton Community Library. To the east, beyond two surface parking lots there is the Clayton Historical Society and Museum and the Kindercare Learning Center. South of the site along Main Street are retail and service uses. West of the project site beyond Clayton Road is Clayton Park and Mount Diablo Elementary School. The following section describes the existing noise environment and identifies primary noise sources in the vicinity of the project site.

(1) Existing Ambient Noise Levels. An LSA noise technician conducted short-term ambient noise monitoring on the project site on Tuesday, November 16, 2010 between the hours of 9:00 a.m. and 11:00 a.m. at three separate locations on the project site. The purpose of this noise monitoring was to document the existing noise environment and capture the noise levels associated with current operations and activities in the project site vicinity. Table IV.E-3 lists the noise levels measured during the short-term (15-minute) noise measurements. Maximum and minimum noise levels were recorded as well as the equivalent continuous noise level measure L_{eq} . The overall meteorological conditions at the time of the noise measurements included temperatures ranging from 70 to 80 degrees Fahrenheit, relative humidity ranging from 30 to 33 percent, and average wind speeds of 1 mile per hour (i.e., conditions that would allow for the collection of accurate noise measurements). The noise monitoring data collection sheets are included in Appendix E. The results indicate that the ambient noise environment in the project site vicinity is relatively quiet and is dominated by traffic noise on adjacent roadways.

Table IV.E-3: Short-Term Ambient Noise Monitoring Results, dBA, November 16, 2010

Location Number	Location Description	Start Time	L_{eq} ^a	L_{max} ^b	L_{min} ^c	Primary Noise Sources
1	Approximately 10 feet from edge of eastbound lane of Clayton Road in northeast corner of project site	9:30 a.m.	69.4	90.5	49.9	Traffic on Clayton Road, one small plane, birds
2	Approximately 15 feet from edge of westbound lane of Main Street at Oak Street intersection near southwest corner of project site	10:01 a.m.	57.5	76.5	43.6	Traffic on Clayton Road, Oak Street, and Main Street, kids playing
3	Approximately 30 feet from edge of westbound lane of Main Street, 15 feet from edge of parking lot in southeast corner of project site	10:23 a.m.	55.9	69.8	43.5	Traffic on Clayton Road and Main Street, kids playing at Kindercare

^a L_{eq} represents the average of the sound energy occurring over the 15-minute time period.

^b L_{max} is the highest instantaneous sound level measured during the 15-minute time period.

^c L_{min} is the lowest instantaneous sound level measured during the 15-minute time period.

Source: LSA Associates, Inc., November 2010.

(2) Existing Noise Sensitive Uses in the Project Vicinity. Land uses surrounding the project site consist of retail and commercial development as well as municipal uses. The closest sensitive receptor to the project site is the Kindercare Learning Center, located east of the project site. The learning center is located beyond a surface parking lot that borders the project site. Retail and commercial uses are located on the south side of Main Street across from the project site. Mount Diablo Elementary School is located west of the project site beyond Oak Street, while the Clayton Community Library is located north of Clayton Road. The construction and operation of the proposed project could generate noise that would affect these surrounding land uses.

(3) Existing Aircraft Noise Levels. The closest major airport, Oakland International Airport, is located approximately 21 miles southwest of the project site. The closest airstrip to the site is the Buchanan Field Airport, located approximately 10 miles northwest of the project site. In addition, Livermore Municipal Airport and Byron Airport are located approximately 25 miles from the project site. Noise from aircraft activity is usually not audible in the project site vicinity, due to the distance of the project site from the surrounding airports.

(4) Existing Traffic Noise Levels. Existing traffic noise levels were calculated using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model. Traffic data used in the model were obtained from the traffic analysis prepared for this project, which is included in Section IV.B, Transportation, Circulation, and Parking. Table IV.E-4 lists the calculated traffic noise levels along roadway segments in the project site vicinity under existing (2010) conditions. The traffic noise model printouts are included in Appendix E.

Consistent with the traffic impact analysis, the traffic noise modeling analyzed both weekday and Sunday traffic noise levels. Average daily trips were calculated as 10 times the PM peak hour (for weekdays) or mid-day peak hour (for Sundays) traffic volumes on roadway segments in the project site vicinity. Based on these volumes, posted speed limits, and existing roadway geometries, the existing weekday traffic noise levels along roadway segments in the project site vicinity range from 49.1 dBA to 63.8 dBA L_{dn} . Existing traffic noise levels on Sundays range from 52.2 dBA to 66.6 dBA L_{dn} at 50 feet from the centerline of the outermost travel lanes.

Table IV.E-4: Existing Traffic Noise Levels

Roadway Segment	Average Daily Trips	Centerline to 70 dBA L_{dn} (feet)	Centerline to 65 dBA L_{dn} (feet)	Centerline to 60 dBA L_{dn} (feet)	L_{dn} (dBA) 50 Feet From Centerline of Outermost Lane
Weekdays					
Clayton Road - Mitchell Canyon Road to Oak Street	10,300	< 50 ^a	63	127	63.8
Clayton Road - Oak Street to Marsh Creek Road	9,700	< 50	61	122	63.5
Clayton Road - Marsh Creek Road to Oakhurst Drive	5,800	< 50	< 50	89	61.3
Main Street - Oak Street to March Creek Road	500	< 50	< 50	< 50	49.1
Marsh Creek Road - Clayton Road to Main Street	4,300	< 50	< 50	57	60.1
Sundays					
Clayton Road - Mitchell Canyon Road to Oak Street	19,600	< 50	92	193	66.6
Clayton Road - Oak Street to Marsh Creek Road	18,500	< 50	89	186	66.3
Clayton Road - Marsh Creek Road to Oakhurst Drive	12,600	< 50	71	145	64.7
Main Street - Oak Street to March Creek Road	1,000	< 50	< 50	< 50	52.2
Marsh Creek Road - Clayton Road to Main Street	6,200	< 50	< 50	72	61.7

^aTraffic noise within 50 feet of roadway centerline requires a site-specific analysis.
Source: LSA Associates, Inc., November 2010.

2. Impacts and Mitigation Measures

This section evaluates potential noise impacts associated with implementation of the proposed project and mitigation measures to address these impacts, where appropriate.

a. Criteria of Significance. A project would have a significant noise effect if it would substantially increase the ambient noise levels for adjoining areas or conflict with the following criteria. For the purposes of this EIR, a project would result in a significant noise impact if it would:

- Expose persons to or generate noise levels in excess of normally acceptable standards established in the General Plan or noise ordinance.
- Expose persons to or generate excessive groundborne vibration or noise.
- Create a substantial permanent change in the noise environment, above levels existing without the project.
- Create a substantial temporary or periodic increase in ambient noise levels in the project vicinity, above levels existing without the project.
- Be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, and would expose people residing or working in the project area to excessive noise levels.
- Be located in the vicinity of a private airstrip and would expose people residing or working in the project area to excessive noise levels.

b. Less-Than-Significant Noise Impacts. The following project impacts would be considered less than significant and would not require mitigation.

(1) Groundborne Vibration. Demolition and construction activities proposed as part of the project may generate perceptible vibration levels when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used in the vicinity of nearby sensitive land uses. Distinctly perceptible groundborne vibration levels could be generated by heavy tracked vehicles (e.g., bulldozers or excavators) when this equipment operates within approximately 25 feet of sensitive land uses. No pile driving (which can generate distinctly perceptible groundborne vibration levels at distances up to about 100 feet) is proposed as part of the project.

The existing building proposed for demolition is located approximately 85 feet from the nearest adjacent structures, the commercial buildings located on the south side of Main Street across from the project site. The closest noise sensitive land uses to the project construction areas are the Kindercare and Clayton Museum east of the project site, and the Community Library located north of Clayton Road. These properties are all located approximately 125 feet from the construction limits of the nearest proposed project buildings. Construction vibration damage thresholds, according to the research and guidelines of the Federal Transit Administration, are shown in Table IV.E-5. The closest existing buildings are of engineered timber and masonry frame construction. At a distance of 85 feet, groundborne vibration levels from the use of heavy construction equipment would attenuate to below 89 vibration decibels (VdB),³ thus resulting in vibration levels well below the potential construction vibration impact criteria of 98 VdB for this nearby structure. For the other structures located at a distance of approximately 125 feet from proposed construction areas, groundborne vibration levels from the use of heavy construction equipment would attenuate to below 83 VdB, thus resulting in vibration levels well below the potential construction vibration impact criteria for even the most

³ Attenuation based on the equation to estimate the vibration level L_v at any distance D : $L_v(D) = L_v(25ft) - 30\log(D/25)$. Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment*, Chapter 12. May.

sensitive type of structures. Therefore, groundborne noise and vibration impacts from construction activities would be less than significant.

Table IV.E-5: Federal Transit Administration Construction Vibration Impact Criteria

Building Category	Vibration Level Damage Impact Criteria (VdB)
Reinforced-concrete, steel or timber (no plaster)	102
Engineered concrete and masonry (no plaster)	98
Non-engineered timber and masonry buildings	94
Buildings extremely susceptible to vibration damage	90

Source: Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment*. May.

There are no other sources of groundborne vibration that would affect receptors in the project site vicinity. In addition, the project would not include any operational sources of groundborne vibration. Therefore, impacts from groundborne vibration on receptors in the project vicinity would be less than significant.

(2) Operational Noise Impacts. The operation of the project would introduce new sources of noise into the existing noise environment. Mechanical equipment normally associated with church, administrative/office, and retail land uses can include heating, ventilation, and air conditioning systems, and exhaust fans. The Municipal Code requires that noise from the operation of such equipment during the hours of 7:00 a.m. to 10:00 p.m. not result in excessive noise to nearby residential land uses.

Other operational noise sources associated with implementation of the project would include parking lot activity and occasional outdoor special events such as the annual soap box derby. Amplified or acoustic music (including the sounds of an organ, piano, guitars, or choral music) and speech from inside the sanctuary is not expected to reach levels that would exceed the standards of the Municipal Code. Noise generated by sound or loud speaker equipment that would be plainly audible at a distance of 50 feet from the nearest property line or building from which the noise is emanating is prohibited under the Municipal Code. Noise from parking lot activity such as car doors slamming or people conversing would be similar to noise levels from existing parking areas in the project site vicinity and would typically be lower than noise generated by traffic on adjacent roadways. Therefore operational noise impacts from equipment, parking lot activity, or special events are regulated by the Municipal Code and would result in a less-than-significant impact on adjacent land uses.

In addition, the Municipal Code prohibits the creation of noise on a street, sidewalk or public place adjacent to a church which would unreasonably interfere with the working of the institution. These codes are enforced under Ordinance 9.30.070 of the Municipal Code. Therefore, operational noise impacts on the project would be less than significant.

c. Significant Noise Impacts. The following section discusses noise sources that would substantially increase ambient noise levels in the vicinity of the project site on a temporary or permanent basis.

(1) Construction Noise Impacts. Implementation of the proposed project could result in noise levels from construction activities that would expose sensitive receptors to excessive noise

levels and would result in a substantial temporary increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact NOI-1: Construction period activities could create significant temporary noise impacts on existing noise sensitive land uses in the project vicinity. (S)

Two types of short-term noise impacts would occur during demolition, site preparation, and project construction. The first type would result from the increase in traffic on local streets, associated with the transport of workers, equipment, and materials to and from the project site. The transport of workers and construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. Because workers and construction vehicles would use existing routes, noise from passing trucks (85 dBA L_{max} at 50 feet) would be similar to existing vehicle-generated noise. For this reason, short-term intermittent noise from trucks would be minor when averaged over a longer time period. In addition, noise associated with on-road vehicles is regulated by federal and State governments and is exempted from local government regulations. Therefore, short-term construction-related noise associated with worker and equipment transport to the project site would result in a less-than-significant impact on receptors along the access routes leading to the site.

Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These phases would change the character of the noise generated on the project site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table IV.E-9 lists typical construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor. Typical noise levels range up to 91 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backhoes, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

Construction of the proposed project is expected to require the use of earthmovers such as bulldozers and scrapers, loaders and graders, water trucks, and pickup trucks. As shown in Table IV.E-9, the

Table IV.E-6: Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Range of Maximum Sound Levels (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	74 to 84	80
Scrapers	83 to 91	87
Haul Trucks	83 to 94	88
Cranes	79 to 86	82
Portable Generators	71 to 87	80
Rollers	75 to 82	80
Dozers	77 to 90	85
Tractors	77 to 82	80
Front-End Loaders	77 to 90	86
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	86
Air Compressors	76 to 89	86
Trucks	81 to 87	86

Source: Bolt, Beranek & Newman, 1987. *Noise Control for Buildings and Manufacturing Plants.*

typical maximum noise level generated by backhoes on the project site is assumed to be 86 dBA L_{max} at 50 feet from the operating equipment. The maximum noise level generated by bulldozers is approximately 85 dBA L_{max} at 50 feet. The maximum noise level generated by water and other trucks is approximately 86 dBA L_{max} at 50 feet from these vehicles. Each doubling of the sound sources with equal strength would increase the noise level by 3 dBA. Assuming each piece of construction equipment operates at some distance apart from the other equipment, the worst-case combined noise level during this phase of construction would be 91 dBA L_{max} at a distance of 50 feet from an active construction area.

The closest noise-sensitive land uses to the project construction areas are the Kindercare and Clayton Museum east of the project site and the Community Library located north of Clayton Road. These properties are all located approximately 125 feet from the construction limits of the nearest proposed project buildings. At this distance, maximum noise levels from construction activities could range up to 83 dBA L_{max} at these properties during the noisiest construction phase (the site preparation phase).

In accordance with the City's policies in the Noise Element and the ordinances of the Municipal Code, implementation of the following multi-part mitigation measure would be required to reduce these short-term construction noise impacts to a less-than-significant level. The exact noise reduction achieved by this measure would be based on the type and activity level of construction equipment used, and would likely vary through the construction period.

Mitigation Measure NOI-1: The project sponsor and construction contractor shall implement the following measures at the construction site:

- All construction equipment must have appropriate sound muffling devices, which shall be properly maintained and used at all times such equipment is in operation.
- Where feasible, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
- The construction contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project.
- Except as otherwise permitted, all noise producing construction activities shall be restricted to the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday. Any construction beyond the limited time is strictly prohibited unless authorized by the City Engineer or designee or by project conditions of approval. (LTS)

(2) **Traffic Noise Impacts.** Implementation of the proposed project would expose receptors to excessive noise levels.

Impact NOI-2: Local traffic with implementation of the proposed project would generate long-term noise resulting in a permanent increase in existing ambient noise levels in the project vicinity and would expose sensitive receptors to noise levels in excess of established standards. (S)

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the project site. The resultant noise levels were weighed and

summed over a 24-hour period in order to determine the L_{dn} values. The existing and cumulative traffic volumes for roadway segments in the project site vicinity were taken from the traffic volumes presented in the traffic impact analysis (see Section IV.B). Table IV.E-7 shows the traffic noise levels under existing conditions without and with the project, and the cumulative traffic noise levels without and with the project.

The significance criteria state that a significant impact would occur if the project would expose persons to noise levels in excess of standards established in the City's General Plan and Municipal Code, or applicable standards of other agencies. Traffic on Clayton Road adjacent to the project site would generate noise levels under Existing Plus Project weekday conditions of up to 66.4 dBA L_{dn} . These exterior noise levels would be above the City's standard of 60 dBA L_{dn} for new noise-sensitive development. Therefore, according to the policies of the Noise Element, an appropriate noise reduction plan must be implemented in order to meet the interior noise standard of 45 dBA L_{dn} .

Based on the U.S. Environmental Protection Agency's (EPA's) Protective Noise Levels,⁴ a combination of standard wall, door, and window construction measures for northern California buildings would provide more than 25 dBA in exterior to interior noise reduction with windows closed and 15 dBA or more with windows open. With windows open, the proposed buildings would not meet the City's "normally acceptable" interior noise level standard of 45 dBA L_{dn} for residential land uses (i.e., 66.4 dBA – 15 dBA = 51.4 dBA). As a result, an alternative form of ventilation, such as air conditioning systems, would be required to ensure that windows could remain closed for a prolonged period of time. With windows closed, the proposed buildings would meet the 45 dBA L_{dn} interior noise standard (i.e., 66.4 dBA – 25 dBA = 41.4 dBA).

A significant impact would also occur if the project would create a substantial permanent change in the noise environment, above levels existing without the project. Only changes of 3.0 dBA or greater in existing ambient or background noise levels are considered perceptible in exterior environments. The greatest increase in traffic noise levels would occur along the segment of Main Street from Oak Street to Marsh Creek Road. Project-related traffic would result in an increase of 2.0 dBA during weekday operations; however, ambient noise along this roadway segment would experience an increase of up to 4.5 dBA on Sundays. This increase in ambient noise levels due to project-related traffic would result in a perceptible increase in traffic noise levels in the project vicinity on Sundays. However, the resulting traffic noise levels would only range up to 52.1 dBA L_{dn} at 50 feet from the centerline of the outermost travel lane, well below the minimal annoyance noise level defined by the City of 60 dBA L_{dn} . Therefore, project-related traffic would not result in a substantial change in the noise environment. While the increase in project-related traffic noise along this segment of Main Street would be perceptible (over conditions without the project), it would not exceed applicable standards, nor would it expose persons in the vicinity to excessive noise levels. Therefore, project-related increases in traffic noise levels on roadway segments in the project vicinity would not result in a significant impact on off-site land uses.

However, as described above, traffic noise would expose persons on the project site to unacceptable noise levels, and, according to the policies of the Noise Element, an appropriate noise reduction plan must be implemented. Implementation of the following mitigation measure would reduce on-site traffic-related noise impacts to a less-than-significant level.

⁴Ibid.

Mitigation Measure NOI-2: All buildings of the proposed project shall include an alternative form of ventilation, such as air conditioning systems, to ensure that windows can remain closed for prolonged periods of time to meet the interior noise standard of 45 dBA L_{dn} established by the City. (LTS)

Table IV.E-7: Modeled Traffic Noise Levels at 50 feet from Centerline of Outermost Travel Lane, dBA

Roadway Segment	Existing (L _{dn})	Existing Plus Project (L _{dn})	Difference Between Existing and Existing Plus Project	Significant Project Contribution to Impact?	Cumulative (2035) No Project (L _{dn})	Cumulative (2035) Plus Project (L _{dn})	Difference Between Cumulative and Cumulative Plus Project	Significant Project Contribution to Cumulative Impact?
Weekdays								
Clayton Road - Mitchell Canyon Road to Oak Street	66.6	66.7	0.1	No	66.6	66.7	0.1	No
Clayton Road - Oak Street to Marsh Creek Road	66.3	66.5	0.2	No	66.3	66.5	0.2	No
Clayton Road - Marsh Creek Road to Oakhurst Drive	64.7	64.7	0.0	No	64.7	64.7	0.0	No
Main Street - Oak Street to Marsh Creek Road	50.7	52.7	2.0	No	50.7	52.7	2.0	No
Marsh Creek Road - Clayton Road to Main Street	61.7	62.1	0.4	No	61.8	62.2	0.4	No
Sundays								
Clayton Road - Mitchell Canyon Road to Oak Street	63.8	63.9	0.1	No	63.9	64.1	0.2	No
Clayton Road - Oak Street to Marsh Creek Road	63.5	63.7	0.2	No	63.6	63.7	0.1	No
Clayton Road - Marsh Creek Road to Oakhurst Drive	61.3	61.5	0.2	No	61.3	61.5	0.2	No
Main Street - Oak Street to Marsh Creek Road	47.6	52.1	4.5	No	47.6	52.1	4.5	No
Marsh Creek Road - Clayton Road to Main Street	60.1	60.7	0.6	No	60.2	60.8	0.6	No

Source: LSA Associates, Inc., April 2011.

F. CULTURAL RESOURCES

This section evaluates the proposed project's potential impacts to cultural and paleontological resources. Cultural resources are sites, buildings, structures, objects, and districts that may have traditional or historical significance. Paleontological resources, as a subset of cultural resources, are the fossilized remains of prehistoric plant and animal life.

CEQA defines a "historical resource" as a resource which is listed in or determined eligible for listing on the California Register of Historical Resources (California Register), listed in a local register of historical resources (as defined in Public Resources Code Section 5020.1(k)), identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, or determined to be a historical resource by a project's lead agency. A historical resource consists of "[a]ny object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources." *CEQA Guidelines* Section 15064.5 states that a substantial adverse change in the significance of a historical resource may result in a significant effect on the environment.

CEQA also applies to effects on archaeological sites. The lead agency must apply a two-step screening process to determine if an archaeological site meets the definition of a historical resource or a unique archaeological resource. Prior to considering potential impacts, the Lead Agency must determine whether the archaeological site meets the definition of a historical resource in *CEQA Guidelines* Section 15064.5(a). If the archaeological site meets the definition of a historical resource, then it must be treated like any other type of historical resource in accordance with *CEQA Guidelines* Section 15126.4. If the cultural resource does not meet the definition of a historical resource, then the Lead Agency must then determine if the resource meets the definition of a unique archaeological resource as defined in CEQA Section 21083.2(g). If the archaeological site meets the definition of a unique archaeological resource, then it must be treated in accordance with Section 21083.2(g). If the archaeological site does not meet the definition of a historical resource or a unique archaeological resource, then effects to the site are not considered significant effects on the environment.

Public Resources Code Section 5097.5 also provides for the protection of cultural and paleontological resources. Section 5097.5 prohibits the removal, destruction, injury, or defacement of archaeological and paleontological features on any lands under the jurisdiction of State or local authorities.

Paleontological resources are fossilized remains of plants and animals, and associated deposits. CEQA requires that a determination be made as to whether a project could directly or indirectly destroy a unique paleontological resource or site or unique geological feature. If an impact is significant, CEQA requires the identification of feasible measures to minimize the impact. Public Resources Code Section 5097.5 also applies to paleontological resources. The Society of Vertebrate Paleontology has identified vertebrate fossils and fossiliferous deposits as significant, non-renewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.

The first section below describes the methods used to conduct the cultural resources analysis of the proposed project, and is followed by a brief historical overview of the project area (i.e., the project

site and its immediate surroundings). The second section describes the methods used for the paleontological resources analysis, and is followed by a brief discussion of paleontological conditions in the site. The third section presents the results of the impact analysis and provides mitigation measures to reduce significant impacts to a less-than-significant level.

1. Cultural Resources

This section describes the methods used to identify the baseline conditions for cultural resources in the project area. Following this discussion is a brief overview of the prehistoric, ethnographic, and historical setting of the project site and its vicinity.

a. Methods. This cultural resources analysis included a records search, a literature review, contact with potentially-interested parties, and supplemental research. This work was conducted to: 1) identify cultural resources or cultural resource studies in or adjacent to the project site and 2) gather the archaeological, ethnographic, and historical information necessary to describe the baseline conditions for cultural resources.

(1) Records Search. LSA conducted a records search (NWIC file no. 10-0284) of the project site and a 0.25-mile radius on September 21, 2010, at the Northwest Information Center (NWIC) of the California Historical Resources Information System, Sonoma State University, Rohnert Park. The NWIC, an affiliate of the State of California Office of Historic Preservation, is the official State repository of cultural resource records and reports for Contra Costa County. The records search was conducted to identify the level of documentation for cultural resources in the project area. The records search included a review of the following federal and State inventories:

- *California Points of Historical Interest*¹;
- *California Historical Landmarks*²;
- *Five Views: An Ethnic Historic Site Survey for California*³; and
- *Directory of Properties in the Historic Property Data File*.⁴ The directory, updated quarterly, includes the listings of the National Register of Historic Places, National Historic Landmarks, and the California Register of Historical Resources.

Five cultural resources studies encompass the project site, and two potential cultural resources have been identified in the area: prehistoric archaeological site CA-CCO-222 and the Clayton Community Church structure (the former Pioneer Inn). Carrie D. Wills conducted a pedestrian archaeological survey of the project site,⁵ and evaluated the California Register eligibility of the Clayton Community Church structure.

¹ California Office of Historic Preservation, 1992. *California Points of Historical Interest*. California Department of Parks and Recreation, Sacramento.

² California Office of Historic Preservation, 1996. *California Historical Landmarks*. California Department of Parks and Recreation, Sacramento.

³ California Office of Historic Preservation, 1988. *Five Views: An Ethnic Historic Site Survey for California*

⁴ California Office of Historic Preservation, 2008. California Department of Parks and Recreation, Sacramento. March 7.

⁵ Wills, Carrie D., 2009. *Phase I Cultural Resources Assessment, Clayton Community Church Project, City of Clayton, Contra Costa County, California*. Michael Brandman Associates, San Ramon, California.

Archaeological Site CA-CCO-222. CA-CCO-222 is located on the site of the historical Keller Ranch north of Main Street in Clayton. The precise boundaries are not provided here to protect the confidentiality of site location information. The site consists of midden, human burials, hearths, and a complex of artifacts that indicate habitation to approximately 2,800 years before the present. Previous archaeological investigations indicate that a portion of CA-CCO-222 extends into the project site up to its border with Main Street, and likely extends under Main Street to an undetermined southern boundary. Later, more intensive archaeological investigations geared to determining the nature and condition of the site deposit found that CA-CCO-222 contains archaeological features and materials that represent a “scientifically significant cultural deposit.”⁶ This type of characterization indicates that the deposit would be eligible for inclusion in the California Register of Historical Resources under Criterion 4 for its potential to yield information important in prehistory, thereby qualifying as a historical resource under CEQA. Also, as documented elsewhere, the Native American community also ascribes traditional cultural value to the site, and has expressed concerns about potential impacts to human remains. Based on the findings of several previous archaeological investigations of CA-CCO-222, it is likely that the site’s deposits extend into the project site.

Clayton Community Church Building. Clayton Community Church offices are located at 6055 Main Street in a building also known as the former Pioneer Inn. The current building was constructed in 1951 as a single-story, “L”-shaped building covered with a low-pitched, end-gabled roof with decorative attic vents and clad in asphalt shingles. The main entrance is located roughly in the middle of the main, south-facing, asymmetrical façade under a full-length, shed-roofed porch. The walls are clad in either textured stucco or vertical wood siding. The building’s fenestration consists of several large, fixed-pane picture windows set in deep, minimally decorated casements along the south, street-facing façade and others are replacement vinyl, double-hung sash windows. A 1988 addition clad in wood siding is located on the west façade and has a stucco-clad chimney. An open area located on the east side of the south, street-facing façade was once used for outdoor dining and is currently used as a play area. A large, mature eucalyptus tree is at the southeast corner of the property, and a mature pepper tree is southwest of the building. The building houses the Clayton Community Church offices.

The Clayton Community Church building is located on the site of what was once the Clayton Hotel, a two-story, wood-framed building constructed in 1857. The Clayton Hotel burned in 1864 and was largely rebuilt out of fire-resistant materials and renamed the Mt. Diablo Hotel. After several walls collapsed in 1901, the building was rebuilt and was the location of “Tat’s Place,” a local bar. In 1951, a major fire gutted the upper story and a single-story building was constructed and fashioned as a bar and locally acclaimed steakhouse, first as “Chubby” Humble’s Pioneer Inn and later as John Jawad’s Pioneer Inn. Carrie D. Wills reports that during the reconstruction of the Pioneer Inn after the fire, a section of the original, fire-resistant rock walls was incorporated as part of the building.

The Clayton Community Church building is listed as a historic resource in the Land Use Chapter of the Town Center Specific Plan. Subsequent to this listing, in 2009, the building was

⁶ Holman, Miley and Matthew R. Clark, 1982. p.i. *Cultural Resource Evaluations of Keller Ranch, Clayton, California. Part I: Archaeological Investigations at the Keller Ranch Site, CA-CCO-222.* Holman & Associates, San Francisco, California.

evaluated for California Register eligibility.⁷ LSA conducted additional property-specific research in September and October 2010 to expand the initial evaluation.⁸ The significance criteria of the California Register were applied to the Clayton Community Church building, as follows:

- *Criterion 1:* The building that eventually was reconstructed and is currently used by the Clayton Community Church was originally constructed as one of the earliest buildings in Clayton, and is associated with the development of Clayton;
- *Criterion 2:* Archival research did not identify any persons significant in history associated with the Clayton Community Church building;
- *Criterion 3:* The Clayton Community Church building is a common example of vernacular Ranch-style architecture. It is not an important example of such architecture, and does not represent the work of an important creative individual; and
- *Criterion 4:* The Clayton Community Church building will not yield information important in the history of building techniques or technology.

While the Clayton Community Church building is associated with the early development of Clayton (through the retention of a portion of historic fabric of the former Pioneer Inn), it was reconstructed in 1951 and has had several subsequent alterations. While the Clayton Community Church building retains integrity of *location*, the original *materials*, *design*, *association* and *workmanship* have been altered with subsequent modifications to the Pioneer Inn and the surrounding community. Integrity of *feeling* and *setting* are compromised by the commercial and residential development nearby and the modern four-lane Clayton Road/Marsh Creek Road adjacent to the site. For these reasons, the Clayton Community Church building does not convey its association under Criterion 1, and therefore lacks historical integrity. Due to a lack of integrity, this property does not appear eligible for inclusion in the California Register, and it does not constitute a historical resource for the purposes of CEQA.

Cultural resources in the vicinity of the project site include four more structures:

Clayton Vineyards/DeMartini Winery. The Clayton Vineyards/DeMartini Winery, at 5919 Clayton Road, is located approximately 250 feet from the project site. Constructed in 1885 by Paul DeMartini as part of a vineyard and winery complex initially established in the mid-1860s by Joel Clayton, the Clayton Vineyards/DeMartini Winery is listed in the *Historic Resources Inventory Contra Costa County, California* as a “Structure of Historical Significance” and is also listed in the *Directory of Properties in the Historic Property Data File for Contra Costa County* as having a status of 1S: “Listed in the National Register as an individual property.” The Clayton Vineyards/DeMartini Winery is currently in use as Clayton City Hall after being restored in the 1990s.

⁷ Wills, 2009.

⁸ For additional details on LSA’s methods, findings, and conclusions pertaining to the original evaluation, please see *Supplemental California Register of Historical Resources Eligibility Evaluation of the Pioneer Inn, Clayton, Contra Costa County, California* (Hibma 2010). LSA Associates, Inc., Point Richmond, California.

Joel Clayton Home. The Joel Clayton Home, at 6101 Main Street, is a two-story, wood-framed home built in 1857 after Joel Clayton arrived and platted out the town of Clayton. The Clayton Home is adjacent to the project site (on the north side of Main Street) and is listed in the *Historic Resources Inventory Contra Costa County, California* as a “Structure of Historical Significance” and is also listed in the *Directory of Properties in the Historic Property Data File for Contra Costa County* as having a status of 3S: “Appears Eligible for National Register as an individual property through survey evaluation.” The Clayton Home is the current location of the Clayton Historical Society.

Moresi’s Chophouse (La Cocotte Restaurant). Moresi’s Chophouse, at 6115 Main Street, is approximately 300 feet east of the project site. Constructed in 1858 as a residential property by the Duncan Family, Moresi’s Chophouse is listed in the *Historic Resources Inventory Contra Costa County, California* as a “Structure of Historical Significance/Architectural Specimen” and is also listed in the *Directory of Properties in the Historic Property Data File for Contra Costa County* as having a status of 3S: “Appears Eligible for National Register as an individual property through survey evaluation.” One study mentioned that Moresi’s Chophouse was once the Clayton Post Office, a barber shop, a saloon, and a Justice of the Peace’s office. The building was renovated in 1970-1971.

Clayton Community Hall (Endeavor Hall). The Clayton Community Hall, at 6007 Center Street, is approximately 250 feet southwest of the project site. Constructed in 1860 by Joel Clayton, the Clayton Community Hall is listed in the *Historic Resources Inventory Contra Costa County, California* as a “Structure of Historical Significance” and is also listed in the *Directory of Properties in the Historic Property Data File for Contra Costa County* as having a status of 3S: “Appears Eligible for National Register as an individual property through survey evaluation.”

(2) Literature Review. LSA reviewed the following publications, maps, and websites for historical information about the project site and its vicinity:

- *Historic Civil Engineering Landmarks of San Francisco and Northern California;*⁹
- *California Place Names;*¹⁰
- *Historic Spots in California;*¹¹
- *California 1850: A Snapshot in Time;*¹²
- *Historical Atlas of California;*¹³
- *Mt Diablo, Calif., 15-minute topographic quadrangle;*¹⁴

⁹ American Society of Civil Engineers, 1976. *Historic Civil Engineering Landmarks of San Francisco and Northern California*. The History and Heritage Committee, San Francisco Section, San Francisco, California.

¹⁰ Gudde, Erwin G., 1998. *California Place Names: The Origin and Etymology of Current Geographical Names*. Fourth edition, revised and enlarged by William Bright. University of California Press, Berkeley.

¹¹ Hoover, Mildred Brooke, Hero Eugene Rensch, Ethel Rensch, and William N. Abeloe, 1989. *Historic Spots in California*, Fourth edition, revised by Douglas E. Kyle. Stanford University Press, Stanford, California.

¹² Marschner, Janet, 2000. *California 1850: A Snapshot in Time*. Coleman Ranch Press.

¹³ Hayes, Derek, 2007. *Historical Atlas of California*. University of California Press.

- *Clayton, Calif.*, 7.5-minute topographic quadrangle;¹⁵ and
- *Clayton, CA.*, 7.5-minute topographic quadrangle.¹⁶

LSA conducted online research to obtain additional information about cultural resources in or adjacent to the project site. Online resources included:

- *Historic Resources Inventory Contra Costa County Inventory*;¹⁷
- *Historic Topographic Maps of California - San Francisco Bay Area*;¹⁸
- *Online Archive of California*;¹⁹
- *Calisphere*;²⁰ and
- *California Registry of Big Trees*.²¹

(3) Interested Party Contacts. This analysis incorporates the results of interested party contacts made by Michael Brandman Associates (MBA) as part of a cultural resources technical study prepared for the project in 2009.²² On October 1, 2009, MBA contacted the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File for the project site. The NAHC responded on October 20, 2009 to report that the project site did not contain any resources identified in the Sacred Lands File, and also provided a list of local Native American contacts. On October 26, 2009, MBA sent letters to three Native American individuals identified in the NAHC contact list as potentially having information or concerns about the project and potential effects to cultural resources. The following individuals were contacted by MBA via letter (tribal affiliation is also indicated): Katherine Erolinda Perez (Ohlone/Costanoan; Northern Valley Yokuts; and Bay Miwok); Andrew Galvan (Ohlone/Costanoan; Bay Miwok; Plains Miwok; and Patwin); and Ramona Garibay (Ohlone/Costanoan; Bay Miwok; Plains Miwok; and Patwin). No responses to these contact attempts were received as of November 12, 2009.

LSA contacted historical organizations as part of its supplementary work on the architectural eligibility evaluation. On September 21, 2010, LSA sent a letter describing the project and a map depicting the project site to the Contra Costa County Historical Society in Martinez requesting information or concerns regarding historical sites in the project area that might be affected by the proposed project.

¹⁴ United States Geological Survey, 1898. *Mt Diablo, Calif.*, 15-minute topographic quadrangle. Washington, D.C.

¹⁵ United States Geological Survey, 1953. *Clayton, Calif.*, 7.5-minute topographic quadrangle. Photorevised in 1968 and 1973. Washington, D.C.

¹⁶ United States Geological Survey, 1953. *Clayton, CA.*, 7.5-minute topographic quadrangle. Photorevised 1980, Minor Revision 1994. Washington, D.C.

¹⁷ Historic Resources Inventory Contra Costa County Inventory, 2011. Website: www.co.contra-costa.ca.us/DocumentView.aspx?DID=1116.

¹⁸ Historic Topographic Maps of California - San Francisco Bay Area, 2011. Website: sunsite.berkeley.edu/histopo/quadlist.html.

¹⁹ Online Archive of California, 2011. Website: www.oac.cdlib.org.

²⁰ Calisphere, 2011. Website: www.calisphere.universityofcalifornia.edu.

²¹ California Registry of Big Trees, 2011. Website: www.ufe.org/BigTrees/index.html.

²² Wills, 2009.

No response to LSA's letter to the Contra Costa County Historical Society was received within two weeks of mailing. On October 5, 2010, LSA made follow-up telephone calls and emails. No response to these contact attempts was received.

On September 21, 2010, LSA sent a letter describing the project and a map depicting the project site to the Clayton Historical Society requesting information or concerns regarding historical sites in the project area that might be affected by the proposed project. No response to LSA's letter to the Clayton Historical Society was received within two weeks of mailing. On October 5, 2010, LSA made follow up telephone calls and emails. No response to these contact attempts was received.

(4) Archival Research. LSA conducted archival research as part of its supplementary work on the architectural eligibility evaluation. On October 8, 2010 LSA conducted research in the archives room at the Contra Costa County Historical Society and History Center in Martinez and at the Pleasant Hill Branch of the Contra Costa County Library. On October 12, 2010, LSA conducted additional research at the Clayton Historical Society and the Contra Costa County Assessor's Office, and requested a building permit file records search at the Building Inspection Division of the Contra Costa County Department of Conservation and Development in Martinez. The archival research included the examination of local histories, maps, images, government records, city directories, telephone directories, and local newspaper articles for historical and environmental information about the Clayton Community Church and Pioneer Inn, including information regarding former inhabitants and owners, and the historical background of the project site and its vicinity.

b. Cultural Resources Overview. This section provides a brief overview of the cultural history of Clayton from the earliest point at which Native Americans first entered the area, to modern times. This section is adapted from a previous study report prepared for the project site.²³

(1) Prehistory and Ethnography.²⁴ Early archaeological investigations in central California were conducted at sites located in the Sacramento-San Joaquin Delta region. The first published account documents investigations in the Lodi and Stockton area.²⁵ The initial archaeological reports typically contained descriptive narratives, with more systematic approaches sponsored by Sacramento Junior College in the 1930s. At the same time, University of California at Berkeley excavated several sites in the lower Sacramento Valley and Delta region, which resulted in recognizing archaeological site patterns based on variations of inter-site assemblages. Research during the 1930s identified temporal periods in central California prehistory and provided an initial chronological sequence.^{26,27} In 1939, Lillard noted that each cultural period led directly to the next and that influences spread from the Delta region to other regions in central California.²⁸ In the late 1940s and early 1950s, Beardsley documented similarities in artifacts among sites in the San Francisco Bay region and the Delta and

²³ Wills, 2009.

²⁴ This prehistoric and ethnographic overview is taken from Wills (2009).

²⁵ Schenck, W.E. and E.J. Dawson, 1929, pp. 286-413. "Archaeology of the Northern San Joaquin Valley." American Archaeology and Ethnology 25.

²⁶ Lillard, J.B. and W.K. Purves, 1936. "The Archaeology of the Deer Creek-Cosumnes Area, Sacramento Co., California. Sacramento Junior College, Department of Anthropology, Bulletin 2. Sacramento.

²⁷ Lillard, J.B., R.F. Heizer, and F. Fenenga, 1939. "An Introduction to the Archaeology of Central California." Sacramento Junior College, Department of Anthropology, Bulletin 2. Sacramento.

²⁸ Ibid.

refined his findings into a cultural model that ultimately became known as the Central California Taxonomic System (CCTS). This system proposed a uniform, linear sequence of cultural succession.^{29,30} The CCTS was challenged by Gerow, whose work looked at radiocarbon dating to show that Early and Middle Horizon sites were not subsequent developments but, at least partially, contemporaneous.^{31,32,33}

To address some of the flaws in the CCTS, D.A. Fredrickson³⁴ introduced a revision that incorporated a system of spatial and cultural integrative units. Fredrickson separated cultural, temporal, and spatial units from each other and assigned them to six chronological periods: Paleo-Indian (10000 to 6000 B.C.); Lower, Middle, and Upper Archaic (6000 B.C. to A.D. 500); and Emergent (Upper and Lower, A.D. 500 to 1800). The suggested temporal ranges are similar to earlier horizons, which are broad cultural units that can be arranged in a temporal sequence.³⁵ In addition, Fredrickson defined several patterns – a general way of life shared within a specific geographical region. These patterns include:

- Windmill Pattern or Early Horizon (3000 to 1000 B.C.)
- Berkeley Pattern or Middle Horizon (1000 B.C. to A.D. 500)
- Augustine Pattern or Late Horizon (A.D. 500 to historic period)

Characterized by the Windmill Pattern, the Early Horizon was centered in the Cosumnes district of the Delta and emphasized hunting rather than gathering, as evidenced by the abundance of projectile points in relation to plant processing tools. The large variety of projectile point types and faunal remains suggests exploitation of numerous types of terrestrial and aquatic species.^{36,37} Burials occurred in cemeteries and intra-village graves. The Middle Horizon is characterized by the Berkeley Pattern, which exhibited a strong milling technology represented by minimally shaped cobble mortars and pestles. Dart and atlatl technologies during this period were characterized by non-stemmed projectile points made primarily of obsidian. Fredrickson³⁸ suggests that the Berkeley Pattern marked the eastward expansion of Miwok groups from the San Francisco Bay Area. Typical burials occurred within the village with flexed positions, variable cardinal orientation, and some cremations. The Late Horizon

²⁹ Beardsley, R.K., 1948, pp. 1-28. "Cultural Sequences in Central California Archaeology." *American Antiquity* 14.

³⁰ Beardsley, R.K., 1954. "Temporal and Areal Relationships in Central California Archaeology. Berkeley: University of California Archaeological Survey Reports 25.

³¹ Gerow, B.A., 1954. "The Problem of Cultural Sequences in Central California Archaeology." Paper presented at the Annual Meeting of the American Association for the Advancement of Sciences.

³² Gerow, B.A., 1974, pp. 239-246. "Comments on Fredrickson's Cultural Diversity." *The Journal of California Anthropology* 1(2).

³³ Gerow, B.A. and R. Force, 1968. *An Analysis of the University Village Complex with a Reappraisal of Central California Archaeology*. Stanford University Press. Palo Alto, California.

³⁴ Fredrickson, D.A., 1973. *Early Cultures of the North Coast Ranges, California*. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

³⁵ Moratto, M.J., 1984. *California Archaeology*. Academic Press, San Diego.

³⁶ Bennyhoff, J., 1950, pp. 295-238. "Californian Fish Spears and Harpoons." *University of California Anthropological Records* 9(4).

³⁷ Ragir, S.R., 1972. "The Early Horizon in Central California Prehistory." *Contributions of the University of California Archaeological Research Facility* 15. Berkeley, California.

³⁸ Fredrickson, 1973.

is characterized by the Augustine Pattern, which includes the introduction of bow and arrow technology; and, most importantly, acorns became the predominant food resource. Trade systems expanded to include raw resources as well as finished products. Burial patterns retained the use of flexed burials with variable orientation.³⁹

At the time of European contact, the project area is believed to have been within the territory of the Volvon group of the Bay Miwok.⁴⁰ The Bay Miwok and the Ohlone tribes to the south are linguistically related members of the Utian language family. The Volvon are estimated to have been approximately 300 to 400 people who inhabited the area now occupied by the cities of Concord, Walnut Creek, and Clayton, and perhaps extended east to the southern Bay Point region.

Linguistically linked with the Plains Miwok and Sierra Miwok, the Bay Miwok are a subgroup of the Eastern Miwok. At the time of European contact, the Bay Miwok were estimated to have a population of 1,700 people who inhabited the area extending from eastern Contra Costa County eastward to the Sacramento-San Joaquin Delta. The Plains Miwok, who historically occupied the lower Mokelumne River, Cosumnes River, and the Sacramento River from Rio Vista to Freeport had a population estimated at 11,000 people. The Sierra Miwok occupied the foothills and mountains from the Cosumnes River south to the upper drainages of the Fresno River. Together, the pre-contact population density of the Eastern Miwok – estimated at 19,500 – is considered one of the highest in California.⁴¹

The Volvon were organized in political units known as tribelets that were related by similarities in language and ethnicity.^{42,43} Individual tribelets had one to five semi-permanent villages and numerous temporary camps within a prescribed territory averaging 6 to 10 miles in diameter. Trade was an important aspect of Bay Miwok subsistence, and the trade network involved a flow of various types of goods across ecological boundaries. Political organization of the Bay Miwok focused around the tribelet chief and was passed from father to son, or, in the absence of a son, to the chief's daughter.

The Volvon were semi-nomadic and employed a seasonal hunting and gathering subsistence pattern. Acorns served as the dietary staple, of which several varieties were gathered and stored in granaries for later consumption. Fishing and hunting supplied protein and seasonal berries, seeds, and roots rounded out the Bay Miwok diet.⁴⁴ The Miwok groups all used a wide variety of tools, implements, and enclosures for fishing, hunting, collecting, or processing resources (e.g., tule or log rafts, mortars and pestles, traps and snares, nets, seed beaters, bows and arrows, digging sticks, bedrock mortars, and woven baskets).

Beginning as early as 1772, Spanish expeditions arrived at or passed through the general project area. Following the establishment of Mission San Francisco de Asis and Mission San José in 1776 and

³⁹ Moratto, 1984.

⁴⁰ Levy, Richard, 1978. *Miwok*. In Handbook of North American Indians, Vol. 8: California, edited by R.F. Heizer. Smithsonian Institution, Washington, D.C.

⁴¹ Ibid.

⁴² Kroeber, A.L., 1925. Handbook of the Indians of California. Bulletin 78. Bureau of American Ethnology. Smithsonian Institution, Washington, D.C.

⁴³ Levy, 1978.

⁴⁴ Ibid.

1797, many of the Volvon either moved to the missions or fled to the north across Suisun Bay to avoid the Spanish. The population of those who lived in the missions was decimated because of the introduction of European diseases for which the Volvon had no immunity.

(2) **Historic Period Overview.**⁴⁵ This section presents a brief overview of the cultural/historical phases of the project area and its vicinity.

Spanish Period. The most drastic and permanent change to the local Miwok way of life was the establishment of the Spanish Mission system. By the early 1800s, the mission fathers began a process of cultural change that brought the majority of the local Native Americans into the missions. At the expense of traditional skills, the Native Americans were taught the pastoral and horticultural skills of the Hispanic tradition. In 1834, the mission system was officially secularized, and the majority of the mission Native American population dispersed to local ranches, villages, or nearby pueblos. Following the collapse of the mission system, many of the local Native Americans returned to their villages, but the size of all Miwok populations had dwindled dramatically due to the spread of European settlements and the diseases the Europeans brought with them.

Mexican Period. With the declaration of Mexican independence in 1821, Spanish control of Alta California ended, although little change actually occurred. Political change did not take place until mission secularization in 1834, when Native Americans were released from missionary control and the mission lands were granted to private individuals. Mission secularization removed the social protection and support on which Native Americans had come to rely. It exposed them to further exploitation by outside interests, often forcing them into a marginal existence as laborers for large ranchos. Following mission secularization, the Mexican population grew as the Native American population continued to decline. Euro-American settlers began to arrive in California during this period and often married into Mexican families, becoming Mexican citizens, which made them eligible to receive land grants. In 1846, on the eve of the U.S.-Mexican War (1846 to 1848), the estimated population of California was 8,000 non-natives and 10,000 Native Americans.

European Expansion. In 1848, as a result of the Treaty of Guadalupe Hidalgo, California became a United States territory. Also in 1848, John Marshall found gold at Sutter's Mill, which marked the start of the Gold Rush. The influx of miners and entrepreneurs increased the population of California, not including Native Californians, from 14,000 to 224,000 in just 4 years. This, in turn, stimulated commercial growth throughout northern California as eager entrepreneurs set up businesses to support the miners and mining operations. When the Gold Rush was over, many of the miners settled in the Bay Area and established farms, ranches, and lumber mills.

Contra Costa County and Clayton. Settlement within Contra Costa County during the early mid-1800s focused primarily on agriculture and ranching. That focus changed with the discovery of coal at the base of Mt. Diablo in the vicinity of present-day Clayton. From the 1850s through the 1880s, the coal mining industry grew and along with that growth, small towns and transportation systems began to develop adjacent to the mines. The towns that were established in direct relation to the mining industry were Nortonville, Somersville, Stewartville, Judsonville, and West Hartley. All of these towns flourished for a time but disappeared when the mining profits dwindled. Although the mining industry in eastern Contra Costa County subsided, its growth created a land rush and

⁴⁵ This section was adapted from Wills (2009).

precipitated the construction of towns, railroads, lumber mills, and more permanent settlements within the County, which broadened the economic base of the area.

In 1857, the town of Clayton was founded by Joel Clayton, who is reported to have originally named the community “Garibaldi” after the Italian patriot who unified Italy. However, it was finally decided by a coin toss that the town would be named Clayton. Joel Clayton had experience in mining zinc in Wisconsin and envisioned the town of Clayton being a business hub for local miners and nearby agricultural businesses. Joel and his brothers, Charles and James, became highly successful business leaders in the San Francisco area, particularly Joel, who invested largely in the Clayton area. Although Joel moved frequently and had numerous other business enterprises throughout California, including a horse ranch in Tejon Pass, he passed away in 1872 of pneumonia in Somersville and was buried at Live Oak Cemetery in Concord. His wife, Margaret, passed away in 1908 in San Francisco and was buried alongside her husband. In October 1998, the family, friends, and members of the Clayton Historical Society dedicated a granite marker to Joel and Margaret and placed it at their gravesite.

Former Pioneer Inn. In 1857, soon after Joel Clayton’s arrival, Frenchman Romero Mauvais built a tavern and soon after, a two-story hotel. A fire in February 1864 which began in the hotel soon spread and nearly burned down all of Clayton. After the fire, a “fireproof” two-story hotel of concrete construction was built and served as a stage stop on roads connecting Oakland, Stockton, and Martinez. In 1870, Romero transferred ownership of the hotel and tavern to his son Zeno. In 1875, Zeno sold the property to Scottish immigrant John Condie. Renamed the Mt. Diablo Hotel, Condie operated the facility until he died. In 1900, his widow sold the property to Antone Napolitano. After several concrete walls collapsed in 1901, Napolitano rebuilt the hotel and tavern in wood-framed construction and leased the property to Frank “Tat” Murchio, who operated “Tat’s” Place until 1946 when Suzan and Randall “Chubby” Humble purchased the property and renamed it the Pioneer Inn. A fire in 1951 gutted most of the two-story structure. In 1964, former State Cattle Brand Inspector John Jawad purchased the Pioneer Inn and opened a steakhouse which remained in business until 1990, when he put the restaurant up for sale. In 1992 Edwin and Marion Mergy purchased the property and reopened it as the Stagecoach Inn. The Mergys soon leased the property to several short-term tenants. In 2000, the Clayton Community Church purchased the property, renovated the building, and utilized it for its administrative offices.

(3) Archaeological Sensitivity. The project site is considered sensitive for prehistoric archaeological deposits. The project site is within the recorded boundary of CA-CCO-222, but it is unclear the extent to which intact deposits are present in the project site given the past ground disturbance from development and road construction. There is also the possibility that historical archaeological deposits associated with the early development of Clayton and the Pioneer Inn are present; however, as with the prehistoric deposits, the presence and condition of such deposits is unknown.

2. Paleontological Resources

This section describes the methods used to identify the baseline conditions for paleontological resources in the project site. Following this discussion is a brief summary of the paleontological resources setting of the project site.

a. Methods. Background research was conducted to determine if paleontological resources (fossils) or geologic units known to contain fossils are located within or adjacent to the project site. This research consisted of a fossil locality search and a literature review.

A fossil locality search was conducted at LSA's request on October 18, 2010, by Dr. Pat Holroyd of the University of California Museum of Paleontology (UCMP), Berkeley. The purpose of the search was to identify known paleontological sites in and near the project site.

b. Paleontological Resources Overview. Geologically, the project site is situated on Holocene (10,000 years before present (B.P.) to present) alluvial fan deposits. Underlying the Holocene alluvium at an unknown depth are Pleistocene (1,800,000 to 10,000 years B.P.) alluvial fan deposits of partially consolidated sand, silt, and gravel. Underlying the Pleistocene alluvial deposits is Upper Jurassic (161,000,000 to 145,500 years B.P.) to Lower Cretaceous (145,500,000 to 99,600,000 years B.P.) marine sandstone and shale. Mesozoic (251,000,000 to 65,000,000 years B.P.) Coast Range Ophiolite formations of gabbro and diabase are interbedded with the Upper Jurassic-Lower Cretaceous marine sandstone and shale.⁴⁶

The Late Pleistocene alluvial deposits underlying the project site are sensitive for fossils that are representative of the Rancholabrean land mammal age, and include bison, mammoth, ground sloths, saber-toothed cats, dire wolves, cave bears, rodents, birds, reptiles, amphibians, and plants.^{47,48,49,50}

Twelve recorded fossil localities are within a 4-mile radius of the project site, containing a total of 19 fossils of five taxa from both the Miocene Barstovian (15,500,000 to 11,800,000 years B.P.), and the Eocene Uintan (46,200,000 to 42,000,000 years B.P.) North American land mammal ages. Although the project site is not underlain by Miocene or Eocene geological deposits that could contain fossils like those recorded nearby, the presence of Late Pleistocene alluvium underlying the project site indicates sensitivity for Rancholabrean fossils.⁵¹

⁴⁶ Wagner, D.L., E.J. Bortugno, and R.D. McJunkin, 1990. *Geologic Map of the San Francisco-San Jose Quadrangle*. California Division of Mines and Geology, Sacramento.

⁴⁷ Bell, C.J., E.L. Lundelius, Jr., A.D. Barnoskey, R.W. Graham, E.H. Lindsay, D.R. Ruez, Jr., H.S. Semken, Jr., S.D. Webb, and R.J. Zakrzewski, 2004. The Blancan, Irvingtonian, and Rancholabrean Mammal Ages. In *Late Cretaceous and Cenozoic Mammals of North America*, edited by M.O. Woodburne, pp. 232-314. Columbia University Press, New York.

⁴⁸ Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair, 1979. *Flatland deposits of the San Francisco Bay Region, California--their geology and engineering Properties, and their importance to comprehensive planning*. Geological Survey Professional Paper 943. United States Geological Survey and Department of Housing and Urban Development, Washington, D.C.

⁴⁹ Hertlein, Leo G., 1951. Invertebrate Fossils and Fossil Localities. In *Geologic Guidebook of the San Francisco Bay Counties: History, Landscape, Geology, Fossils, Minerals, Industry, and Routes to Travel*, prepared by Olaf P. Jenkins, pp. 187-192. Bulletin 154. State of California Division of Mines, San Francisco.

⁵⁰ Savage, D., 1951, pp. 215-314. Late Cenozoic Vertebrates of the San Francisco Bay Region. *Bulletin of the Department of Geological Sciences* 28(10).

⁵¹ Wagner, Bortugno, and McJunkin, 1990.

3. Impacts and Mitigation Measures

The following section describes impacts to cultural and paleontological resources that could result from implementation of the proposed project. Mitigation measures are identified to avoid, minimize, or mitigate such impacts where appropriate.

a. Criteria of Significance. Implementation of the proposed project would have a significant impact on cultural and/or paleontological resources if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource as defined in *CEQA Guidelines* Section 15064.5.
- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

b. Less-Than-Significant Cultural Resources Impacts. The following discussion describes less-than-significant cultural resources impacts associated with implementation of the Clayton Community Church Project.

(1) Historical Resource (Structure). The Clayton Community Church building is the result of several periods of rebuilding and expansion following fires. While a portion of the building is associated with the early development of Clayton (through the retention of a segment of wall dating from the 19th century), the building as a whole was reconstructed in 1951 and has had several subsequent alterations. The mélange of contemporary building fabric that resulted from structural modifications has diminished the Clayton Community Church building's ability to convey its historical associations. The Clayton Community Church building is included as a historic resource in the Land Use chapter of the Town Center Specific Plan. However, two subsequent California Register eligibility evaluations of the building, conducted by Brandman and Associates in 2009 and LSA in 2010, conclude that the building does not possess the ability to convey its significance, and therefore is not eligible for the California Register and does not qualify as a historical resource under CEQA. As part of the project, the project sponsor is requesting that the City remove the building from the list of historic resources contained in the Town Center Specific Plan due to substantial evidence that does not support the consideration of the building as a historical resource under CEQA Section 21084.1 (describing resources that are listed on local registers). In the case of a disagreement between experts on the level of an impact, *CEQA Guidelines* Section 15151 states that such a scenario does not invalidate an EIR, and that a lead agency must summarize the main points of disagreement and explain its choice of expert opinion. In this case, the opinion shared by two qualified cultural resource consultants, who independently applied the significance criteria of the California Register in developing an eligibility conclusion, is considered to be an accurate characterization of the resource status of the Clayton Community Church building.

As discussed previously in the setting section, the Clayton Community Church building's integrity of *materials, design, association, and workmanship* have been diminished to the point that it is rendered not eligible for inclusion in the California Register, and does not appear to qualify as a historical resource by way of the other means provided for at Section 21084.1. For these reasons, demolition of

the Clayton Community Church building would result in a less-than-significant impact on historic resources.

(2) Historical Resource (Downtown Clayton and Nearby Resources). The proposed project would involve the construction of four buildings north of Main Street at the western gateway to the Town Center. The City prepared the Town Center Specific Plan (Specific Plan) in 1990 to establish goals and policies for new development in the Town Center. The goals and policies are intended to encourage appropriate development while protecting and enhancing the area's historic character. The goals and policies are not prescriptive, but instead provide conceptual guidance to make new development sympathetic to the existing scale, proportion, and rhythm of the existing built environment.

The Specific Plan contains goals and policies related to historic preservation, as well as design guidelines that address the form and visual attributes of new development. Objective #3, Historic Preservation, is the pertinent portion of the Specific Plan, as it establishes priorities for development in the Town Center, as follows:

- *Policy 3a:* Consider State and National Historic District Designation for the existing Town Center;
- *Policy 3b:* Consider State and National Historic designation for qualifying individual sites and buildings;
- *Policy 3c:* Seek State Office of Historic Preservation (SOHP) Certification and develop an historic "district" comprehensive plan. Include appropriate buffer zones where necessary;
- *Policy 3d:* Adopt a City historic preservation ordinance which includes provisions for Conversation Easements for historic buildings; and
- *Policy 3e:* Use the Town Center Specific Plan, including Design Guidelines, for design review of all new development proposals and additions to or alterations of existing structures.

The project would result in the construction of four new buildings, two of which would front Main Street. Three of these buildings are located on portions of the project site that are in or adjacent to areas projected for future development or parking lots in the Specific Plan.⁵² Therefore, the Specific Plan acknowledges that land use changes are anticipated within the project site.

In addition, the project sponsor has developed a site plan and architectural design that references the historical downtown area and its development pattern. These characteristics include two-story wood-frame buildings with horizontal siding, front porches, and the use of rectangular facades. The street-facing buildings would conform to the general orientation of buildings in the downtown (i.e., located near front property lines). Parking lots would be located behind the buildings fronting Main Street. The proposed buildings at the southern end of the project site would contain ground-floor retail space oriented towards Main Street, and would include horizontal siding, parapets, and sidewalk awnings. The buildings fronting Main Street, which would be the most prominent and visible from the public right-of-way and Town Center, would be a maximum of two stories, reaching a maximum of 28 feet in height.

The measure of whether a significant impact to historical resources would occur is whether the significance of a resource is materially impaired. Material impairment occurs when the physical attributes of a resource that convey its significance or justify its eligibility for the California Register

⁵² Figure 4.3, *Illustrative Site Plan*, in *Town Center Specific Plan* (March 1990).

of Historical Resources (California Resources) are demolished or materially altered (*CEQA Guidelines* Section 15064.5(b)). The Town Center has an established Specific Plan that provides for a mechanism to identify discordant or visually unsympathetic development plans. The current project incorporates design elements that conform to the architectural rhythms and land use patterns that comprise the historical character that the Specific Plan seeks to maintain and protect. The implementation of the project would not introduce a visual element that is so out of harmony with the existing physical fabric of the Town Center that the potential eligibility of a historic district would be degraded to the point that such eligibility is no longer justified. The integrity of any such district would necessarily reflect the current scenario in downtown wherein in-fill and contrasting uses that do not maintain historical associations would be considered within (but not contributing to) the potential district. Therefore, the addition of a new use that does not contribute to the eligibility of a potential district (a district whose historical integrity already reflects many such contrasting land uses) would not constitute a material impairment of the district's significance. This is also true of nearby, individual historical resources, because none of their character-defining features would be affected by the proposed project, and their eligibility would be retained. Therefore, the proposed project would result in a less-than-significant impact on the historic integrity of the Town Center and nearby, individual historical resources.

c. Significant Cultural Resources Impacts. The following discussion describes the potential significant cultural resources impacts associated with implementation of the Clayton Community Church Project.

(1) Archaeological Resources. There is the potential that ground-disturbing construction in the project site could encounter archaeological deposits associated with CA-CCO-222.

Impact CULT-1: Ground-disturbing activities associated with site preparation and construction could adversely affect archaeological cultural resources. (S)

There are indications that deposits associated with CA-CCO-222, if intact, would contain information about prehistory that would qualify the deposits as eligible for listing in the California Register, and, therefore, a historical resource under CEQA Section 21084.1 or a unique archaeological resource under CEQA Section 21083.2. Native American tribes and individuals also ascribe cultural or religious significance to the archaeological traces of their ancestors, irrespective of scientific value. It is also possible, although not confirmed through past research or fieldwork, that historical archaeological deposits associated with the Pioneer Inn or early Clayton exist in the project site.

If the deposits described above are present in the project site and are relatively intact, then a substantial adverse change in their significance (i.e., damage or destruction through ground-disturbing construction) would result in a significant impact. The mitigation recommended in this section is designed to provide for a phased approach to impact identification, evaluation, and mitigation. To achieve this objective, the analysis identifies the desired future condition as a performance standard to guide the selection and implementation of project-specific impact mitigation, and provides options for achieving those results. The desired future condition for cultural resources is described below, as well as options for achieving the conditions.

Desired Future Condition: The affected resource will retain those qualities that convey its significance and that justify its status as a significant cultural resource, or such qualities will be documented and analyzed.

Options for Condition Achievement: Any diminishment of the resource qualities noted above will be avoided, minimized, rectified, reduced, or compensated for through the treatment mechanisms.

Impacts to significant archaeological cultural resources will be mitigated through the development and implementation of a treatment strategy (described below). Treatment strategy options may include, but are not limited to:

- *Impact Avoidance or Minimization*, such as project redesign, alternative facility siting, the establishment of Environmentally Sensitive Areas, consultation with descendant communities to develop human remains protocols, or compliance with applicable State law regarding the treatment of human remains (i.e., Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5); or
- *Impact Compensation*, such as data recovery excavation, resource documentation, or interpretation and public outreach.

Any impacts to significant cultural resources will be avoided, minimized, rectified, reduced, or compensated for through the development and implementation of a treatment strategy. A general treatment strategy cannot be defined at this point due to the uncertainty about the presence, extent, nature, and condition of potential archaeological deposits. Additionally, should the affected resource consist of prehistoric archaeological deposits, human remains of Native American origin, or objects of Native American cultural patrimony, the treatment strategy will be developed in consultation with descendant groups who are likely culturally affiliated with such remains.

It is anticipated that the options presented above to achieve the desired future condition will minimize project impacts to significant archaeological deposits. Should such deposits be encountered, implementation of the following mitigation measure would reduce this potential impact to a less-than-significant level. The nature of this mitigation approach is considered appropriate due to the uncertainty regarding the nature of archaeological deposits in the project site, as well as the ground-disturbing activities that have occurred in and adjacent to the project site over the years.

Mitigation Measure CULT-1: Project ground-disturbing construction shall be monitored by a qualified archaeologist. The archaeological monitor shall be empowered to halt construction activities at the location of the discovery to review possible archaeological material and to protect the resource while the finds are being evaluated. Monitoring shall continue until, in the archaeologist's judgment, cultural resources are not likely to be encountered.

Because the monitoring would occur in a sensitive area with the potential to contain intact deposits, the archaeological monitoring shall be implemented through the execution of an Archaeological Monitoring and Evaluation Plan (AMEP). The purpose of the AMEP is to ensure that any significant archaeological deposits discovered during construction are identified, evaluated, and appropriately treated through the use of a pre-established research design and field evaluation strategy, consistent with the requirements of *CEQA Guidelines* Section 15126.4 (b)(3)(C). The AMEP shall be approved by the City in advance of construction, and its implementation shall be made a condition of the issuance of a grading or building permit for the project. The AMEP shall be prepared by professionals who meet the Secretary of the Interior's Professional Qualifications Standards in historical archaeology and prehistoric archaeology (36

CFR Part 61, Appendix A). The AMEP shall include a construction monitoring component and an evaluation component.

The *monitoring* component of the AMEP shall contain a site-specific archaeological sensitivity assessment of the project site to: 1) identify areas that will be subject to monitoring; 2) define the frequency of monitoring; and 3) identify those areas with little to no possibility of containing intact deposits. This assessment should focus on the project site's land use history based on historical maps and photographs, past site improvement/utilities construction plans, historical documents, and soils/geotechnical information. The possibility for encountering human remains during construction should also be addressed by consultation with the appropriate descendant groups.

The *evaluation* component of the AMEP shall guide fieldwork if archaeological remains identified during monitoring are evaluated for legal significance. The purpose of this component is to establish an evaluation process to shorten the time necessary to respond to and evaluate discoveries made during archaeological monitoring. The evaluation component shall contain a field study and technical analysis work plan to guide the methods and procedures to be used during the significance evaluation. The treatment of human remains during the evaluation process shall be addressed, and procedures for the respectful treatment of such remains shall be developed through consultation with descendant communities prior to the final draft of the AMEP.

In the event that a significant archaeological deposit is identified, the deposit shall be treated in accordance with the recommendations of the evaluating archaeologist, in consultation with the City and descendant groups. In accordance with *CEQA Guidelines* Section 15126.4(b)(3), preservation in place through project redesign, or a combination of redesign and site capping, shall be among the options considered by the City in consultation with the archaeologist.

Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results of the monitoring, including any evaluation and treatment conducted as a result of a find. The report shall be submitted to the project applicant, the City, and the NWIC.

This approach shall provide for the identification of potential impacts, avoidance of such impacts if possible, and the mitigation of those impacts that are unavoidable. This shall occur through the recovery of that scientifically consequential information that would otherwise be lost if the archaeological deposit was otherwise destroyed.⁵³ (LTS)

(2) Paleontological Resources. Twelve recorded fossil localities are within a 4-mile radius of the project site, containing a total of 19 fossils of five taxa from both the Miocene Barstovian (15,500,000 to 11,800,000 years B.P.), and the Eocene Uintan (46,200,000 to 42,000,000 years B.P.) North American land mammal ages. Although the project site is not underlain by Miocene or Eocene geological deposits that could contain fossils like those recorded nearby, the presence of Late Pleistocene alluvium underlying the project site indicates sensitivity for Rancholabrean fossils.

⁵³ CEQA case law supports the deferral of mitigation measures when an EIR: 1) commits itself to mitigation by adopting a general mitigation measure; 2) provides performance standards (i.e., desired future condition) that the mitigation will meet; and 3) provides alternative approaches to mitigation. *Endangered Habitats League v. County of Orange* (131 Cal. App. 4th 777)

Impact CULT-2: Ground-disturbing activities associated with site preparation and construction could adversely affect paleontological resources. (S)

There is a low potential that ground-disturbing construction in the project site would encounter paleontological resources. However, if such resources are encountered and damaged, such an effect may be considered a significant impact. Should such resources be encountered, implementation of the following mitigation measure would reduce this potential impact to a less-than-significant level.

Mitigation Measure CULT-2: If paleontological resources are discovered during project activities, all work within 25 feet of the discovery shall be redirected and a qualified paleontologist shall be contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. It is recommended that adverse effects to paleontological resources be avoided by project activities. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, adverse effects on the resources must be avoided, or such effects shall be mitigated. Mitigation can include, but is not necessarily limited to: excavation of paleontological resources using standard paleontological field methods and procedures; laboratory and technical analyses of recovered materials; production of a report detailing the methods, findings, and significance of recovered fossils; curation of paleontological materials at an appropriate facility (e.g., the University of California Museum of Paleontology) for future research and/or display; an interpretive display of recovered fossils at a local school, museum, or library; and public lectures at local schools on the findings and significance of the site and recovered fossils. The City shall ensure that any mitigation involving excavation of the resource is implemented prior to project construction or actions that could adversely affect the resource in question.

Upon completion of the assessment, the paleontologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the paleontological resources discovered. This report should be submitted to the project proponent, the City, and the paleontological curation facility.

Paleontological resources include fossil plants and animals, and evidence of past life such as trace fossils and tracks.⁵⁴ Ancient marine sediments may contain invertebrate fossils such as snails, clam and oyster shells, sponges, and protozoa; and vertebrate fossils such as fish, whale, and sea lion bones. Fossil vertebrate land animals may include bones of reptiles, birds, and mammals. Paleontological resources also include plant imprints, petrified wood, and animal tracks. (LTS)

(3) Human Remains. Construction of the proposed project would require soil excavation and grading for building foundations and utilities that has the potential to adversely affect human remains, in the unlikely event that such remains are present on the project site. There is no evidence of human remains in the project site, nor is there an expectation that such remains would be encountered.

⁵⁴ Bates, Robert L., and Julia A. Jackson (editors), 1984. *Dictionary of Geological Terms*. Third edition. Prepared by the American Geological Institute. Anchor Books, New York.

Impact CULT-3: Ground-disturbing activities associated with site preparation and the construction of building foundations and underground utilities could disturb human remains, including those interred outside of formal cemeteries. (S)

Although not anticipated, it is possible that human remains could be encountered and damaged or destroyed by project construction. Such an impact would be considered significant. Should such remains be encountered, implementation of the following mitigation measure would reduce this potential impact to a less-than-significant level.

Mitigation Measure CULT-3: If human remains are encountered, work within 25 feet of the discovery should be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. The project proponent shall also be notified. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission shall identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the project sponsor, the City, the MLD, and the NWIC. (LTS)

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G. VISUAL RESOURCES

This section evaluates the effects of the proposed project on visual resources, including views in the vicinity of the project site. This analysis also considers the proposed project's consistency with applicable visual resources-related policies. Photographs and visual simulations are included to illustrate the site's visual character and the effects of the proposed project on visual resources.

1. Setting

The following section describes the visual quality of the project site and views of the project site from surrounding areas. Downtown Clayton is located in an area with a high level of visual quality. This visual quality is influenced by the cluster of low-scale historic buildings in downtown, the grid layout of the neighborhood, and the area's natural setting. The City is located in a natural valley and is surrounded by steep hillsides to the north, east, and south, and (to a lesser extent) west. These hillsides, which are highly visible along the north-south and east-west grid of streets in downtown Clayton, create distinct visual boundaries around Clayton and help integrate the natural landscape setting and built environment of downtown.

The Mitchell Creek embankment, to the west of the project site, provides a western entrance to downtown Clayton that is visually significant. The steep embankment contains dense tree cover, which functions to define the western edge of downtown. This natural boundary is also a function of the grade separation along Clayton Road: on the approach to downtown from the west, Clayton Road declines sharply as one approaches the site, allowing for views into downtown.

a. Visual Quality of the Project Site. Please refer to Chapter III, Project Description, for a description of the physical characteristics of the project site.

The project site is an approximately 2.3-acre (gross) property located on the western edge of the Town Center. In general, the site is flat and approximately 78 percent of the site's surface is unpaved. The portions of the site covered with impervious surfaces include the existing former Pioneer Inn building (used by the Clayton Community Church as office, administrative, and community space) and a parking lot located to the west of the building.

The western portion of the site is undeveloped and abuts the Mitchell Creek greenway, which helps define the western edge of downtown. Because much of the site is undeveloped, the Mitchell Creek greenway appears wide and the site is visually connected to the greenway. Trees are a major component of the site's visual character. As discussed in Chapter III, Project Description, the site contains 48 mature trees (of which 15 are native oak trees with a high level of aesthetic value). Trees that are particularly prominent include a Valley oak with a 38-inch trunk diameter in the southwestern portion of the site and a eucalyptus with an 84-inch trunk diameter in the southeastern portion of the site. These trees and the large



Much of the western portion of the project site is undeveloped.

expanses of undeveloped land within the site define the edge of downtown and – along with numerous views to surrounding hillsides – contribute to the rural visual character of downtown Clayton.

The existing former Pioneer Inn building on the site also contributes to the aesthetic character of the site. Although the structure has been rebuilt numerous times and is essentially of modern construction, its scale, architecture, and relationship to the street are typical of historic structures along Main Street. The building is one story, features a low-slung rectangular façade, and contains a covered walkway that is built up against the lot line adjacent to Main Street. The building thus continues the pattern of structures positioned close to the street that characterizes Main Street and that makes the neighborhood attractive to pedestrians.



The former Pioneer Inn building has a close relationship to the street that is typical of historic structures in downtown.

b. Visual Quality of the Project Site Surroundings. Following is a brief discussion of the visual character of the areas surrounding the project site. As noted above, the site is located at the western entrance to downtown Clayton, which is defined by the Mitchell Creek embankment.

- *North.* Clayton Road, which is a designated scenic route in the Community Design Element of the General Plan, borders the site to the north. Clayton Road is tree-lined adjacent to the project site and contains intermittent views of Mount Diablo and surrounding hillsides. Beyond Clayton Road to the north is the Clayton Library and the City’s municipal complex. City Hall, which occupies the historic DeMartini Winery, is a landmark building with a high degree of visual quality.
- *East.* Beyond two parking lots are buildings that are part of historic downtown Clayton, including the Clayton Historical Society and Museum. The buildings to the east of the site are generally wood-frame structures located close to the street, many containing front yards or porches. Off-street parking is generally located behind buildings, which enhances the pedestrian-level visual quality of Main Street.
- *South.* Beyond Main Street are smaller-scale retail and service uses. Some of these uses (including Skipolini’s Pizza) function as informal community gathering places and include outdoor seating. These retail establishments contribute to the aesthetic quality of Main Street, which is characterized by an assemblage of retail uses.
- *West.* The Mitchell Creek greenbelt is located west of the project site. As described above, the greenbelt is an important open space and visual element in Clayton, and demarcates the western boundary of downtown. The greenbelt is characterized by clusters of trees, interspersed with grassy vegetation, and the channel of Mitchell Creek itself. The greenbelt is



Skipolini’s Pizza is an important community gathering place and visual element south of the site.

visually valuable, due to its location close to Clayton's commercial center, and its function as part of a pedestrian and bicycle route through the City.

c. Views from the Project Site. Long-distance views from the project site, as in other locations throughout Clayton, include the hillsides surrounding the City. These hillsides include those around Keller Ridge-Kirker Pass to the northeast of the City, and those around Mount Diablo to the south. Because these hills are part of the regional open space network, they are largely undeveloped and possess a high degree of visual integrity. These views convey the landscape setting of the City from the perspective of the project site. Such views are available from many parts of the project site – particularly the undeveloped western side – although in many places hillside views are obstructed or partially obstructed by trees and the existing building in the eastern portion of the site. Views of downtown Clayton (including The Grove – the City's downtown park – and associated commercial development) are also available from the site. The commercial structures to the south of the site are clearly visible, and the historic structures abutting Main Street are visible from the vicinity of the southern boundary of the site. In addition, views of the Mitchell Creek greenbelt are available from the site. These views give the site a rural visual character.



Hillside views are available from the site, although some are partially blocked by trees.

d. Views of the Project Site. Views of the project site are available from the streets that border the project site, including Clayton Road and Main Street. Figure IV.G-1 shows viewpoints of the project site for which visual simulations of the proposed project were prepared. Figures IV.G-2 through IV.G-4 show existing views from these viewpoints (in addition to the effects of the proposed project on these views). Key views of the project site are discussed below.

- *Views from Clayton Road, South of the Library (View 1).* Views of the project site heading west along Clayton Road (see Figure IV.G-2) are partially obscured by the row of trees planted adjacent to Clayton Road. Because of these trees, glimpses into the site are sporadic. From this viewpoint, the northern side of the former Pioneer Inn building is visible, as is the adjacent parking lot. The remainder of the site appears as undeveloped land covered with grassy vegetation or bare ground. Long-range views from this point include the undeveloped hillsides to the south and southwest of Clayton. In several places, these views are unobstructed by trees. The embankment adjacent to Mitchell Creek is also visible through the trees.
- *Views from Clayton Road and Oak Street (View 2).* Views at this western entrance to downtown (see Figure IV.G-3) are characterized by the dense vegetation planted around the "Clayton Town Center" entry sign and the down-slope extending eastward from the Mitchell Creek embankment. The concentration of vegetation in this area lends the area a leafy feel, and ornamental street lights denote a transition into downtown Clayton. Glimpses of the undeveloped portions of the site and parking lot are visible from this location, as are longer-distance views of undeveloped hillsides to the east. These hillsides are partially obscured by trees.
- *Views from Main Street (View 3).* From Main Street, near the intersection with Morris Street (see Figure IV.G-4), the former Pioneer Inn building appears as an extension of commercial develop-

ment along Main Street. The building is located close to the street, and the covered walkway in front of the structure is typical of historic buildings in the area. The views from this point are also characterized by the massive eucalyptus tree in the southeastern corner of the site, in addition to other mature trees along the southern boundary of the site. The embankment behind Mitchell Creek is visible to the west.

e. Applicable Policies

The Community Design Element of the General Plan and the Urban Design Chapter of the Town Center Specific Plan include aesthetics-related policies that are applicable to the proposed project and project site. Applicable policies and their consistency with the project are discussed in Table IV.G-1. (Note that certain policies are also discussed in Section IV.A, Land Use and Planning Policy.) The project would be subject to design review as part of the project review process.

(1) General Plan Community Design Element. The Community Design Element of the General Plan seeks to “create a cohesive, attractive, and vibrant pedestrian-friendly ambiance within the Town Center, with as few breaks as possible in the shopping frontage.” It seeks to achieve this objective through the protection of historic buildings and other important visual features, the integration of open space into new development, and the preservation of important views. The Community Design Element also designates scenic routes in the City. The one closest to the project site is Clayton Road (immediately north of the project site). This scenic route extends from Kirker Pass Road to Marsh Creek Road, passing through the Town Center. According to the Community Design Element, scenic routes in the City have been identified “due to the incidental and panoramic view of Mt. Diablo, the foothills surrounding Mt. Diablo and the border vegetation along the route.”

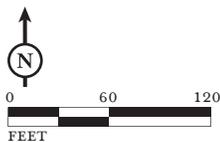
(2) Town Center Specific Plan Urban Design Chapter. The goal of the Urban Design Element of the Specific Plan is to “Maintain the rural and historical character of Clayton in the central area of the City and its neighborhoods.” Means of achieving this goal include perpetuating patterns of urban design that are typical of historic development in Clayton; ensuring that new development is consistent in character with existing development; and requiring discretionary review of new development by the Planning Commission. The Urban Design Element also contains extensive design guidelines that “are more than suggestions, but less than absolute requirements” in regard to new development. General design criteria include:

- Demonstrate an overall design integrity and serious effort to contribute to the beauty and harmony of the community.
- Develop compatible relationships to the land forms, building placement, and existing open spaces of neighboring properties.
- Respect the existing views, privacy, quiet, and sun and light exposure of neighboring properties.
- When conditions require a project to be different from its neighbors, provide a transition from existing to new development by careful placement and massing of buildings, well-designed planting patterns, and other means.
- Maintain vistas of surrounding hills and natural features.



FIGURE IV.G-1

LSA



3 VIEWPOINT LOCATIONS



Existing view from Clayton Road.



Visual simulation of the proposed project.

LSA

FIGURE IV.G-2

Clayton Community Church Project EIR
Visual Simulation from Viewpoint 1



Existing view from the intersection of Clayton Road and Oak Street.



Visual simulation of the proposed project.

LSA

FIGURE IV.G-3



Existing view from Main Street.



Visual simulation of the proposed project.

LSA

FIGURE IV.G-4

Clayton Community Church Project EIR
Visual Simulation from Viewpoint 3

Table IV.G-1: Applicable General Plan and Specific Plan Policies

Policy	Text	Project's Relationship to Policy
General Plan Community Design Element		
1b	Apply the urban design guidelines of the <i>Town Center Specific Plan</i> to new construction, additions, and remodels in the Town Center.	The Planning Commission would review the project in the context of the urban design guidelines. The project is consistent with the general design criteria in that it would: demonstrate an overall design integrity; be compatible with existing development; respect existing views, privacy, and sunlight; transition appropriately from existing development; and maintain important views.
2a	Maintain the greenbelt system as an edge to streets and development.	The western portion of the site closest to Mitchell Creek would remain as open space and would not intrude on the greenbelt adjacent to the creek.
2b	Identify areas where vegetation should be preserved.	No sensitive natural communities (e.g., riparian vegetation or wetlands) exist on the site (see Chapter VI, CEQA-Required Assessment Conclusions, for a discussion). Of the 48 mature trees on the site, approximately 31 trees (65 percent of the total) would be preserved. Of the 17 trees proposed for removal, 15 are in "poor" condition, according to the Arborist Report prepared for the project (see Chapter III, Project Description, for a discussion). The other two trees are in "fair" condition. Of the 15 oak trees present on the project site, three would be removed.
2c	Require creative landscaping for new developments.	The project includes many different types of open space, including paseos, courtyards, walkways, and other public gathering places and landscaped areas.
2d	Use vegetation as screens to development.	The project would maintain existing vegetation along the northern boundary of the site, which screens views of the site from Clayton Road.
5a	Protect scenic vistas and view corridors.	The project would not block hillside views available from streets surrounding the project site.
6d	Design parking lots with ample screening and vegetation.	The proposed parking lot would be planted with trees along its northern and eastern edges. Trees would also be planted along a median in the interior of the parking lot.
10b	Encourage property owner solutions to conflicts between development and view enhancement.	The project would not block views from public viewpoints in the vicinity of the site.
11b	Prioritize and stimulate the development of multi-story buildings with ground floor uses which enhance pedestrian activity in the Town Center.	The ground floor frontage of the buildings facing Main Street would contain retail space, which could enhance pedestrian activity in the Town Center. Based on the activity summary provided by the project sponsor, the site would be used throughout the week by church members, who would be expected to contribute to pedestrian activity.
11c	Integrate open space, courtyards, and paseos into new and re-configured projects.	The project includes approximately 56,242 square feet of open space, including paseos, courtyards, walkways, and other public gathering places and landscaped areas.
12b	Use existing historic buildings and structures in the Town Center as the basis for and overall design themes in the Town Center.	The proposed buildings and layout of the site would reference historical building configuration and design in downtown Clayton, including through the use of two-story wood-frame buildings with horizontal siding, front porches, and rectangular façades. The two buildings in the southern portion of the site would be clustered near Main Street, with parking to the north – similar to the configuration of existing historic buildings in the vicinity of the site.

Table IV.G-1 *Continued*

Policy	Text	Project's Relationship to Policy
12d	Apply the urban design guidelines of the <i>Town Center Specific Plan</i> to new construction, additions, and remodels in the Town Center.	See General Plan Community Design Element Policy 1b.
Town Center Specific Plan Urban Design Element		
2a (Urban Design)	Create public places in the Town Center where residents can meet informally.	After project implementation, approximately 56,242 square feet (approximately 55 percent) of the site would consist of open space, including paseos, courtyards, walkways, and other public gathering places, and landscaped areas.
2b (Urban Design)	Build a new City Hall at a prominent location at the west end of Main Street, emphasizing its character as a town hall in the historic American tradition – a focus for community services and accessible local government.	The project would preclude the development of a new City Hall at the site. However, this policy has been informally discarded by the City due to the renovation and use of the former DeMartini Winery as a permanent City Hall.
2d (Urban Design)	Emphasize the Town Center character as a place for pedestrian enjoyment, following the traditional building-to-street relationship of older towns and villages. Buildings are to be located at the front of properties near the sidewalk, with active, well-scaled frontages that create pedestrian interest. Parking lots are to be located near the rear of buildings, well-planted and screened from street view.	The configuration of proposed buildings would generally reflect the historic pattern of development in the Town Center. Buildings adjacent to Main Street would be built near the southern lot line and would feature articulated façades, canvas awnings, and large windows that are typically attractive to pedestrians. The proposed parking lot would be located in the northeastern portion of the site, and would be partially screened by Building 3.
3e	Use the Town Center Specific Plan, including Design Guidelines, for Design Review of all new development proposals and additions to or alteration of existing structures.	See General Plan Community Design Element Policy 1b.
4a (Urban Design)	Preserve Mitchell Creek and Diablo Creek in their natural settings as important features and open space amenities of the Town Center.	The project would not affect the channel of Mitchell Creek, and the far western portion of the site (closest to the creek) would be maintained as open space.
4d (Urban Design)	Develop a densely-planted buffer along the south edge of the new Clayton Road right-of-way. The buffer should screen the view of parked cars, but not block views of the distant hills.	The proposed landscape plan includes retention of a row of trees adjacent to Clayton Road. These trees would not be expected to substantially block views of distant hills (although views may be intermittently blocked).
4e (Urban Design)	Adopt strong design standards to retain existing mature trees and other natural features in new development.	Of the 48 mature trees on the site, approximately 31 trees (65 percent of the total) would be preserved. Of the 15 oak trees present on the project site, three would be removed.
4f (Urban Design)	Provide direct pedestrian linkages between the Town Center and the regional trail system.	The project includes pedestrian linkages to the trail running along the western boundary of the site that connects the municipal complex and Town Center.
4g (Urban Design)	Retain the Town Center's existing pattern of yards and open spaces, including the opportunity for outlooks to the surrounding foothills, by requiring yards, courtyards, or other open spaces in each new development.	Approximately 55 percent of the site would be set aside as open space, and some of this open space would allow for views to surrounding hillsides.
5a	Require underground utilities in all new development.	All utilities installed as part of the project would be undergrounded.

Table IV.G-1 *Continued*

Policy	Text	Project's Relationship to Policy
5b	Adopt strong controls on commercial signage, especially illuminated signs.	Although no signage plan has been submitted, conceptual renderings of the project indicate that signage would be small in size and consistent with existing signage in the Town Center.
5c	Adopt strong standards on the location of service areas, dumpsters and mechanical equipment.	Based on conceptual plans, service areas and accessory equipment would be located behind buildings, away from Main Street and usable open space.

Source: LSA Associates, Inc., 2010.

2. Impacts and Mitigation Measures

This section analyzes impacts related to visual resources that could result from implementation of the proposed project. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this section presents the impacts associated with the proposed project. Mitigation measures are recommended, as appropriate.

a. Criteria of Significance. Implementation of the proposed project would have a significant effect on visual resources if it would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

b. Less-Than-Significant Visual Resources Impacts. The following discussion describes the less-than-significant impacts to visual resources that would result from implementation of the proposed project.

(1) Scenic Vistas. According to the City of Clayton General Plan and Town Center Specific Plan, important view corridors in the vicinity of the project site include views of the hillsides surrounding Clayton and downtown Clayton itself. The General Plan and Specific Plan contain numerous policies to protect these views (along with the overall visual quality of downtown and adjacent neighborhoods). In addition, Clayton Road (from Kirker Pass Road to Marsh Creek Road, passing through the Town Center) is an officially-designated scenic route in the Community Design Element of the General Plan, as discussed above.

In consultation with City staff, three viewpoint locations were selected for visual simulations of the proposed project. These viewpoints do not capture every potential view of the proposed project. However, they were chosen based on project site visibility and the locations that provide the most representative (and high-profile) views of the project site. Figure IV.G-1 shows the viewpoint locations (1, 2, and 3). Figures IV.G-2 through IV.G-4 show existing views of the project site and visual simulations of the proposed project from each of the three viewpoint locations. The visual simulations were prepared using computer modeling and rendering techniques, and are based on the site building and landscape plans and conceptual renderings provided by the project sponsor. It should be noted

that the design of the project may be refined slightly (e.g., in regard to siding materials, the location of mechanical equipment, and rooflines) in response to additional input from decision-makers, City staff, and the public. However, these minor refinements would not be expected to change the overall “look” of the project as illustrated in these visual simulations. Each viewpoint shown in the figures is described and evaluated below.

- *Views from Clayton Road, South of the Library (View 1).* Figure IV.G-2 depicts the view of the project heading west along Clayton Road. Under existing conditions, this view is characterized in the foreground by an expanse of undeveloped land and the existing parking lot. The Mitchell Creek embankment and former Pioneer Inn building are also visible. In addition, long-range views encompass the undeveloped hillsides to the south and southwest of Clayton. The proposed project would substantially change the foreground view in that much of the site that is currently undeveloped would be developed with new structures. The sanctuary building in particular would be highly visible. The design of these new structures would reference the design of existing historic buildings in the Town Center. In addition, views of the Mitchell Creek greenbelt and embankment would be blocked. However, the longer-range views of undeveloped hillsides would not be obstructed, due to the generally low profile of the proposed buildings. Because the proposed buildings are in keeping with the architectural character of downtown Clayton and would not block views of distant hillside, and the embankment adjacent to Clayton Road would be maintained, the project would not result in a significant adverse impact to scenic views from Clayton Road (even though views of the Mitchell Creek embankment would be blocked).
- *Views from Clayton Road and Oak Street (View 2).* Figure IV.G-3 depicts the view of the project at the entrance to the Town Center, near the intersection of Clayton Road and Oak Street. Under existing conditions, this view is characterized by the Town Center entry sign and surrounding landscaping. Hillsides can be seen in the distance. Due to the dense vegetation and grade separation associated with the Mitchell Creek embankment that partially blocks views of the site, proposed development on the site would only be partially visible. The elements of the project that would be most visible would be the roofline of the sanctuary building and the northern and southern portions of the structure itself, the teen center, and the parking lot. The hillside views in the distance would not be obstructed by the project. Therefore, the project would not adversely affect scenic views from this key western entrance to downtown Clayton.
- *Views from Main Street (View 3).* Figure IV.G-4 depicts the project looking west down Main Street, near the intersection with Morris Street. Under existing conditions, the former Pioneer Inn building and mature trees along the southern boundary of the site are the most visible landmarks. The embankment behind Mitchell Creek is visible in the background. The most notable change to this view that would result from the proposed project is the replacement of the former Pioneer Inn building with a longer frontage of structures adjacent to Main Street. These buildings would be designed to reference historic buildings in the vicinity and would include architectural features that typify the former Pioneer Inn building, including a covered walkway and rectangular building forms. Because the large eucalyptus tree in the southeastern portion of the site and a large oak tree in the southwestern portion of the site would be preserved as part of the project, the tree-lined aesthetic character of Main Street would remain part of the view. The project would not obstruct views of the embankment. Therefore, the project would not adversely affect scenic views from Main Street (looking west).

(2) **Scenic Resources.** The project site is not located within the viewshed of a designated State scenic highway. However, it is immediately adjacent to and within the viewshed of Clayton

Road, which is designated as a scenic route in the Community Design Element of the General Plan. Of the 48 mature trees on the site, approximately 31 trees (65 percent of the total) would be preserved. Of the 17 trees proposed for removal, 15 are in "poor" condition, according to the Arborist Report prepared for the project (see Chapter III, Project Description, for additional detail). The other two trees are in "fair" condition. Of the 15 oak trees present on the project site, three would be removed. The prominent eucalyptus tree and oak tree near the southern boundary of the project site would be preserved as part of the project. Although 35 percent of the mature trees currently on the project site would be removed, this removal would not result in a significant impact to scenic resources because: the vast majority of these trees are in poor condition; 12 of 15 oak trees would be preserved; and the prominent eucalyptus and oak trees in the southern portion of the site would be preserved.

Other scenic resources within and in the immediate vicinity of the project site include the Mitchell Creek greenbelt. Although views of the greenbelt would be blocked from certain points along Clayton Road and Main Street, the greenbelt itself would remain intact as part of the project, and the western portion of the site adjoining the greenbelt would be preserved as open space. Therefore, the project would not substantially adversely affect the scenic integrity of the Mitchell Creek greenbelt.

The former Pioneer Inn building is listed as a historic resource in the Town Center Specific Plan, but is proposed for de-listing as part of the project, based on an earlier historic resources analysis prepared by Michael Brandman and Associates, which concluded that the building has been modified over several consecutive reconstructions to such an extent that it is no longer considered a historic resource pursuant to CEQA. This analysis was confirmed by LSA, as discussed in Section IV.E, Cultural Resources. Therefore, the Pioneer Inn building is not considered a significant historic or scenic resource, and demolition of the structure would not be considered a significant impact to scenic resources.

(3) Visual Character. The visual character of the project site is characterized by the undeveloped western portion of the site, a surface parking lot, and the former Pioneer Inn building (which features historic-looking architecture and is located close to Main Street). Implementation of the proposed project would result in the demolition of the former Pioneer Inn building and redevelopment of the site with a mixture of uses, including a large sanctuary building, a teen center, and buildings located adjacent to Main Street that would contain a mixture of administrative, ministry, and retail space. The amount of development on the site would increase substantially compared to existing conditions. There is currently approximately 6,800 square feet of interior building space on the site; after project implementation, there would be 42,164 square feet of interior space. Therefore, the visual character of the site would be characterized by much more intense development, after implementation of the project. The rural and open quality of the site would be transformed into an environment that is more typical of portions of the Town Center to the east of the site.

However, the basic visual elements that currently exist on the site would be perpetuated with the proposed project. Although the undeveloped western portion of the site would shrink, the entire area within the Federal Emergency Management Agency (FEMA) Regulatory Floodway would be preserved as open space, which would maintain the integrity of the Mitchell Creek greenbelt. An additional open space buffer of at least 15 feet would be set aside to the west of the proposed sanctuary building. In addition, of the 48 mature trees on the site, approximately 31 trees (65 percent of the total) would be preserved, including 12 of the 15 oak trees, and the prominent eucalyptus and oak

trees in the southern portion of the site. Therefore, the site would retain much of its tree canopy, even though development would increase substantially.

The buildings on the site – particularly the two structures proposed adjacent to Main Street – would be located in close proximity to the street and would feature architectural elements that characterize historic development in the Town Center. These elements include generally low building height (less than 40 feet), articulated façades, porches and covered walkways, and windows that are sized appropriately in the context of historic development in downtown Clayton. In addition, the proposed pattern of urban development would be consistent with that apparent in the rest of downtown. Open space – including small courtyards, plazas, and walkways – would be integrated with the proposed buildings. Parking would be located behind the buildings fronting Main Street and would not be highly visible from the street. Although the project would introduce a new land use to downtown Clayton (a church), this new use would not substantially degrade the visual character of downtown due to the overall design of the proposed project (which is consistent with the design of existing commercial development in the Town Center in regard to urban form and architecture), and would result in a less-than-significant impact to visual character.

Please refer to Section IV.A, Land Use and Planning Policy, for a discussion of the project's anticipated policy conflicts with the General Plan and Town Center Specific Plan. As described in that section, the policy conflicts that would result from the project would be considered a significant physical environmental impact due to the project's effects on parking supply and demand, and the future development of the Town Center with commercial uses. However, this significant policy conflict would not result from the design of the project.

(4) Visual Resources Policies. As discussed in Table IV.G-1, the proposed project is generally consistent with the visual resources-related policies in the Community Design Element of the General Plan and the Urban Design Chapter of the Town Center Specific Plan. The project would be designed to reference historic architecture in downtown Clayton, would preserve significant trees on the site, would maintain the integrity of the Mitchell Creek greenbelt, and would result in development that perpetuates the urban fabric of the Town Center.

c. Significant Visual Resources Impacts. Implementation of the proposed project would result in the following significant impact:

Impact VIS-1: The proposed project could increase the amount of light and glare in downtown Clayton. (S)

Exterior lighting would be installed throughout the project site, including along interior pedestrian circulation routes. Although (based on a conceptual photometric plan) proposed lighting is expected to be generally consistent with and similar to existing lighting in downtown Clayton, this lighting could increase levels of nighttime light and glare in the area. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level:

Mitigation Measure VIS-1: The project applicant shall prepare a final lighting plan and photometric study and submit them to the City for review and approval prior to issuance of a building permit. City staff shall review the plan to ensure that any outdoor lighting for the project is oriented downwards and is designed to minimize lighting or glare off-site. (LTS)

H. HYDROLOGY AND WATER QUALITY

This section describes the existing hydrology setting for the proposed project based on available information provided as part of the project application and other published reports, including a description of the watershed and groundwater basin, runoff, drainage, flooding, and water quality. The setting also describes the regulatory framework as it relates to these topics. Significant adverse impacts that could result from implementation of the proposed project are evaluated, and mitigation measures to reduce impacts to a less-than-significant level are provided, where appropriate.

1. Setting

The following discussion provides an overview of hydrology and water quality conditions and regulations for the proposed project.

a. Watershed Description. The project is located within the Mitchell Creek watershed. The average annual rainfall for the project site is 17.5 inches.¹ Mitchell Creek is a perennial tributary to Mount Diablo Creek; Mitchell Creek flows into Mount Diablo Creek a few hundred feet downstream of the project site, within the City of Clayton. Within the City, some segments of Mitchell Creek, Mount Diablo Creek and other tributaries to Mount Diablo Creek flow in underground culverts; however, more often than not, the creek channel condition of Mount Diablo Creek is relatively natural from its confluence with Mitchell Creek until its discharge into the Suisun Bay.²

Surface water quality is regulated by the State Water Resources Control Board (State Board) and San Francisco Bay Regional Water Quality Control Board (Water Board). According to the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan),³ beneficial uses of Mount Diablo Creek and its tributaries are cold freshwater habitat; warm freshwater habitat; fish migration; fish spawning; wildlife habitat; water contact recreation; non-contact water recreation; and navigation. Beneficial uses for Suisun Bay are industrial service supply; industrial process supply; ocean, commercial and sport fishing; estuarine habitat; fish migration; preservation of rare and endangered species; fish spawning; wildlife habitat; water contact recreation; non-contact water recreation; and navigation.

Suisun Bay is on the Clean Water Act (CWA) 2006 303(d) list due to impairment from legacy pesticides (chlordane, DDT, dieldrin), dioxin and furan compounds, mercury, nickel, polychlorinated biphenyls, and selenium. Mount Diablo Creek and its tributaries are not currently listed on the 303(d) list; however, like many San Francisco Bay Area urban creeks, Mount Diablo Creek is impaired due to diazinon and is subject to the Total Maximum Daily Load (TMDL) for diazinon and pesticide-related toxicity in all San Francisco Bay Area urban creeks; the TMDL was incorporated as a Basin Plan amendment in 2005. The U.S. Environmental Protection Agency (EPA) phased out urban diazinon applications at the end of 2004; however, replacements for diazinon (such as pyrethroids) may now potentially pose similar water quality and sediment concerns as diazinon.

¹ Carlson, Barbee & Gibson, Inc., 2010a. *Preliminary Stormwater Control Plan*, Clayton Community Church. November 9.

² Contra Costa County Community Development Department, 2003. *Contra Costa County Watershed Atlas*. November.

³ San Francisco Bay Water Quality Control Board, 2007. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*. January 18.

As part of the Surface Water Ambient Monitoring Program, in 2003-2004 the Water Board performed water quality, sediment, and benthic macroinvertebrate sampling in the Mount Diablo watershed, including locations upstream and downstream of the project site. The data are summarized in the report entitled *Water Quality Monitoring and Bioassessment in Four San Francisco Bay Region Watersheds in 2003-2004: Kirker Creek, Mt. Diablo Creek, Petaluma River, San Mateo Creek*.⁴ In 2006-2007, Friends of Mount Diablo Creek also monitored conventional water quality parameters at several sites in the watershed, including Mount Diablo Creek and Mitchell Creek.⁵

b. Groundwater Basin Description. According to the Basin Plan, the project site is located within the Clayton Valley groundwater basin. The groundwater basin has an existing beneficial use of municipal and domestic water supply. Potential beneficial uses of the basin include industrial process water supply; industrial service water supply; and agricultural water supply. Only a very minor amount of local well water is used by the Contra Costa Water District (CCWD) for water supply in its service area, as the CCWD is almost entirely dependent on the San Francisco Bay Delta for water supply.⁶ The California Department of Water Resources reports that water quality information for the Clayton Valley groundwater basin is limited.⁷

Within the City, aquifer recharge areas are most likely to be found along the creeks. The City protects these likely aquifer recharge areas through protection of its greenbelt system, which establishes open space corridors along streams; these corridors protect water flow and recharge.⁸

Groundwater was encountered at the project site in soil borings drilled for a geotechnical investigation at 10 to 18 feet below ground surface.⁹ Fluctuations in groundwater levels are expected to occur due to varying rates of seasonal precipitation and infiltration and well extractions.

c. Stormwater Runoff and Drainage. The majority of the project site drainage flows from south to north, and is collected in existing storm drain inlets that discharge into Mitchell Creek, which flows in an underground culvert just west of the western project site boundary. The remaining on-site drainage areas discharge into existing storm drain facilities adjacent to Main Street; these existing facilities also discharge to Mitchell Creek.¹⁰ The existing stormwater drainage system is designed to convey runoff from the 10-year storm event at a minimum, although the existing system can likely convey runoff from the 25-year storm with little or no head.^{11,12}

⁴ San Francisco Bay Regional Water Quality Control Board, 2007. *Water Quality Monitoring and Bioassessment in Four San Francisco Bay Region Watersheds in 2003-2004: Kirker Creek, Mt. Diablo Creek, Petaluma River, San Mateo Creek*. June (revised 2008).

⁵ Mount Diablo Creek Watershed Planning Group and Contra Costa Resource Conservation District, 2007. *Mount Diablo Creek Watershed Plan*. April.

⁶ Contra Costa Water District, 2005. *Contra Costa Water District Urban Water Management Plan*.

⁷ California Department of Water Resources, 2004. *California's Groundwater Bulletin 118, San Francisco Bay hydrologic Region, Clayton Valley Groundwater Basin*. February 27.

⁸ Clayton, City of, 2007. Department of Community Development, *Clayton 2000 General Plan*. Amended February 6.

⁹ Cornerstone Earth Group, 2009. *Geotechnical Investigation, Clayton Community Church, 6055 Main Street, Clayton, California*. December 4.

¹⁰ Carlson, Barbee & Gibson, Inc., 2010a.

¹¹ Angrisani, R., 2010. City Engineer, City of Clayton. Personal communication with Baseline Environmental Consulting. September 20.

d. Flooding, Dam Inundation, and Coastal Hazards. Based on the applicable Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map¹³, approximately 98 percent of the project site is located within a Special Flood Hazard Area subject to a 1 percent annual chance of flooding (often referred to as a 100-year flood), Zone AO. FEMA defines Zone AO as an area with a 1 percent annual chance of shallow flooding (usually sheet flow on sloping terrain), where average depths are between 1 and 3 feet. Average flood depths derived from detailed hydraulic analyses are shown in this zone. In addition, the FEMA regulatory floodway bisects the western portion of the site. Shallow on-site flooding that would occur during the 100-year storm would be caused by overflows from existing storm drain inlets (due to overflows in Mitchell Creek and Mount Diablo Creek); on-site ponding would occur because the project site is located at the lowest elevation in the downtown area,¹⁴ and a portion of the undeveloped part of the site has a local depression surrounded by side slopes adjacent to Clayton Road and Oak Street.¹⁵ Site elevations range from 385 to 390 feet (datum unknown).¹⁶ To the knowledge of the City Engineer, shallow flooding on-site has not occurred due to a storm event.¹⁷

The project site is not located within a dam failure inundation hazard area, as determined by the California Office of Emergency Services and mapped by the Association of Bay Area Governments.¹⁸ In addition, the distance of the proposed project from Suisun Bay (approximately 7 miles) and the site elevations above mean sea level would preclude the risk of exposure to coastal or open waterbody hazards such as sea level rise, extreme high tides, seiches, or tsunamis.

e. Regulatory Framework. Applicable federal, State, and local regulations are described below.

(1) Municipal Stormwater Management Requirements. Pursuant to Section 402 of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act, municipal stormwater discharges in the City of Clayton (the City is part of the Contra Costa Clean Water Program) are regulated under the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit, Order No. R2-2009-0074, NPDES Permit No. CAS612008, adopted October 14, 2009 (MRP).

MRP Provision C.3 addresses post-construction stormwater management requirements for new development and redevelopment projects that add and/or replace 10,000 square feet or more of impervious area. Beginning December 1, 2011, the impervious area threshold that triggers the C.3 requirements will change from 10,000 square feet to 5,000 square feet for specific types of development projects, which include auto service facilities, gas stations, restaurants, and uncovered

¹² The term head refers to the height of water above any point or plane of reference.

¹³ Federal Emergency Management Agency, 2009. Flood Insurance Rate Map Community Panel 06013C0308F. June 19.

¹⁴ Carlson, Barbee & Gibson, Inc., 2010a.

¹⁵ Angrisani, R., 2010. City Engineer, City of Clayton. Personal communication with Baseline Environmental Consulting. September 22.

¹⁶ Cornerstone Earth Group, 2009.

¹⁷ Angrisani, R., 2010. City Engineer, City of Clayton. Personal communication with Baseline Environmental Consulting. September 22.

¹⁸ Association of Bay Area Governments, 1995. *Dam Failure Inundation Hazard Map for the City Clayton*. Website: www.abag.ca.gov/bayarea/eqmaps/damfailure/damfail.html. Accessed September 21, 2010.

parking lots. After December 1, 2011, the 10,000-square-foot threshold remains for other types of commercial, industrial, residential, mixed-use, and public projects. Provision C.3 requires the City to require incorporation of site design, source control and stormwater treatment measures into development projects, to minimize the discharge of pollutants in stormwater runoff and non-stormwater discharge, and to prevent increases in runoff flows. The MRP requires that Low Impact Development (LID)¹⁹ methods be the primary mechanism for implementing such controls.

MRP Provision C.3 requires that stormwater treatment best management practices (BMPs) are designed per the following hydraulic sizing criteria:

- Volume Hydraulic Design Basis – Treatment systems whose primary mode of action depends on volume capacity shall be designed to treat stormwater runoff equal to: (a) the maximized stormwater capture volume for the area, on the basis of historical rainfall records, determined using the formula and volume capture coefficients set forth in Urban Runoff Quality Management, Water Environment Federation Manual of Practice No. 23/American Society of Civil Engineers Manual of Practice No. 87, (1998), pages 175–178 (e.g., approximately the 85th percentile 24-hour storm runoff event); or (b) the volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Section 5 of the California Stormwater Quality Association’s Stormwater Best Management Practice Handbook, New Development and Redevelopment (2003), using local rainfall data;
- Flow Hydraulic Design Basis – Treatment systems whose primary mode of action depends on flow capacity shall be sized to treat: (a) 10 percent of the 50-year peak flow rate; (b) the flow of runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or (c) the flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity; or
- Combination Flow and Volume Design Basis – Treatment systems that use a combination of flow and volume capacity shall be sized to treat at least 80 percent of the total runoff over the life of the project, using local rainfall data.

MRP Provision C.3.g pertains to hydromodification management.²⁰ The MRP requires that stormwater discharges shall not cause an increase in the erosion potential of the receiving stream over the existing condition. Increases in runoff flow and volume shall be managed so that the post-project runoff shall not exceed estimated pre-project rates and durations, where such increased flow and/or volume is likely to cause increased potential for erosion of creek beds and banks, silt pollutant generation, or other adverse impacts on beneficial uses due to increased erosive force. Such increases are to be controlled through the implementation of hydromodification management controls, which are referred to as Integrated Management Practices (IMPs)²¹ in Contra Costa County; the IMPs are to be designed to control flows ranging from 20 percent of the pre-project 2-year peak flow up to the pre-project 10-year peak flow.

¹⁹ The goal of LID is to reduce runoff and mimic a site’s pre-development hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring (i.e., evaporating water from soil and plants), and/or biotreating stormwater runoff close to its source.

²⁰ Hydromodification or hydrograph modification causes streambank erosion, channelization, increased flood flows, and other physical modifications that can adversely affect aquatic ecosystems due to increased sedimentation and reduced water quality (e.g., higher water temperatures and lower dissolved oxygen concentrations).

²¹ An Integrated Management Practice is a facility that provides small-scale treatment, retention, and/or detention and is integrated into site layout, landscaping and drainage design.

The Contra Costa Clean Water Program has summarized the requirements for development projects in the *Stormwater C.3 Guidebook, Stormwater Quality Requirements for Development Applications* (Fifth Edition, October 20, 2010). The Guidebook provides direction on selecting stormwater site design, source control, treatment, and flow control BMPs, and summarizes the requirements for preparation of a Stormwater Control Plan, which specifies the permanent site features and facilities designed to control stormwater pollutants and flows for the life of the project. The Stormwater Control Plan must be submitted to the City for review and approval with the planning and zoning application. The Guidebook provides a spreadsheet to be used to size IMPs for water quality treatment and flow control. The Guidebook also includes requirements for preparing an Operation and Maintenance Plan, which is to be submitted to the City for review with the building permit application.

Chapter 13.12 of the City of Clayton Municipal Code (Stormwater Management and Discharge Control) requires project applicants to submit a Stormwater Control Plan and an Operation and Maintenance Plan, and specifies additional BMPs (e.g., for litter, parking lots, and paved areas). The responsible party is required to obtain annually a valid operation and maintenance certificate of compliance certifying the inspection and proper operation and maintenance of the treatment measures and other appropriate source control and site design measures. The responsible party shall request an inspection from the City every 12 months, or arrange for an inspection from a private company authorized to conduct inspections by the City.

(2) Construction General Permit and Local Requirements for Construction. Pursuant to CWA Section 402 and the Porter-Cologne Water Quality Control Act, on September 2, 2009, the State Board adopted an NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002 (Construction General Permit). To obtain coverage under the Construction General Permit, the project applicant must provide via electronic submittal, a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as grubbing or excavation. The permit also covers linear underground and overhead projects such as pipeline installations. Construction activities covered under the Construction General Permit are regulated at a local level by the Water Board.

The Construction General Permit exercises a risk-based permitting approach, and mandates certain requirements based on the risk level of the project (Level 1, Level 2, or Level 3). The risk level of the project is based on the risk of sediment discharge and the receiving water risk. The sediment discharge risk depends on the project location and timing (i.e., wet season versus dry season activities). The receiving water risk depends on whether the project would discharge to a sediment-sensitive receiving water, defined by specific beneficial uses of the receiving water in the Basin Plan (i.e., cold freshwater habitat, fish migration, and fish spawning), a listing on the CWA 303(d) list due to sediment impairment, or a Total Maximum Daily Load in place to address excessive sedimentation. The project would not be Risk Level 1 because it would discharge to a sediment-sensitive creek (Mitchell Creek has as beneficial uses cold freshwater habitat, fish spawning, and fish migration). The determination of the project as Risk Level 2 or 3 would be made by the preparer of the SWPPP, based on criteria developed by the State.

The performance standard in the Construction General Permit is that dischargers shall minimize or prevent pollutants in stormwater discharges and authorized non-stormwater discharges through the use of controls, structures, and management practices that achieve Best Available Technology (BAT) for treatment of toxic and non-conventional pollutants and Best Conventional Technology (BCT) for treatment of conventional pollutants.²² The permit also imposes numeric action levels (Level 2 and Level 3 projects) and numeric effluent limits (Level 3 projects) for pH and turbidity, as well as minimum BMPs that must be implemented at all sites.

A SWPPP must be prepared by a Qualified SWPPP Developer that meets the certification requirements in the Construction General Permit. The purpose of the SWPPP is to: (1) to help identify the sources of sediment and other pollutants that could affect the quality of stormwater discharges; and (2) describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges resulting from construction activity. BMPs must be overseen by a Qualified SWPPP Practitioner that meets the requirements outlined in the permit. For Level 2 and Level 3 projects, the discharger must also prepare a Rain Event Action Plan as part of the SWPPP that must be designed to protect all exposed portions of the construction site within 48 hours prior to any likely precipitation event.

The SWPPP must also include a construction site monitoring program. The monitoring program includes, depending on the project risk level, visual observations of site discharges, water quality monitoring of site discharges (pH, turbidity, and non-visible pollutants, if applicable), and receiving water monitoring (pH, turbidity, suspended sediment concentration, and bioassessment).

Chapter 13.12 of the City of Clayton Municipal Code (Stormwater Management and Discharge Control) requires that construction shall conform to the requirements of the California Stormwater Quality Association Stormwater Best Management Practices Handbooks for Construction Activities, the Association of Bay Area Governments Manual of Standards for Erosion and Sediment Control Measures, the City's grading and erosion control ordinance, and other generally-accepted engineering practices for erosion control, as required by the City Manager when undertaking construction activities. Chapter 15.60 of the City of Clayton Municipal Code (Grading Rules and Regulations) requires the project applicant to obtain a grading permit from the City for conditions that include but are not limited to: the extent of land disturbance exceeds 1 acre and/or the work would occur from October 15 to April 15. The application for a grading permit must include project plans and specifications, a soils engineering report, an engineering geology report, and any additional material requested by the City to demonstrate compliance of the proposed grading with the requirements of the Municipal Code. Project applicants must also comply with the general grading requirements included in Section 15.60.130 of the Municipal Code.

(3) Flood Control Requirements. The City participates in the National Flood Insurance Program regulated by FEMA. Chapter 15.58 (Flood Damage Prevention) of the City of Clayton Municipal Code requires a Development Permit for construction or development within a Special Flood Hazard Area, to be reviewed by the Floodplain Administrator. The Floodplain Administrator

²² As defined by the U.S. EPA, Best Available Technology (BAT) is a technology-based standard established by the CWA as the most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. The BAT effluent limitations guidelines, in general, represent the best existing performance of treatment technologies that are economically achievable. Best Conventional Technology (BCT) is a technology-based standard that applies to treatment of conventional pollutants, such as total suspended solids.

is responsible for verifying that a proposed development would not adversely affect the carrying capacity of the floodway.²³ For purposes of this regulation, “adversely affects” means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than 1 foot at any location. Projects within a Special Flood Hazard Area are required to implement specific standards for construction of residential and non-residential buildings (e.g., elevation and flood proofing, location of utilities) to reduce flood hazards. If fill is used to raise a development site above the base flood elevation, the final pad elevation shall be certified by a registered professional engineer or surveyor (to ensure it is above the base flood elevation) and provided to the Floodplain Administrator.

(4) General Plan Policies. The General Plan objectives and policies applicable to the project are as follows:

Safety Element, Flood Hazards, Objective 8: To protect development in Clayton from the 100-year flood.

Policies:

- 8a. Use the flood maps from FEMA unless better information is available to determine the area of the 100 Year Flood in approving new development.
- 8b. Submit all subdivision and creekside development plans for review by the County Flood Control District.
- 8c. Evaluate areas of existing development subject to flooding for risk mitigation.
- 8d. Prevent encroachment into the flood plain subject to Federal, County and local standards and requirements.

Safety Element, Flood Hazards, Objective 9: To continue participation in the Federal Flood Insurance Program with continued effort to improve flood information.

Policy 9a: Restrict developments in floodways and flood plains in accordance with FEMA requirements

Community Facilities, Objective 1: To establish a series of facility plans to identify existing conditions and to identify a program to fulfill current and future needs.

Policy 1b: Establish a drainage plan that indicates areas subject to flooding and city drainage needs.

(5) Clayton Town Center Specific Plan. The single Specific Plan policy applicable to the project is as follows:

Municipal Services, On-site Drainage Improvement Policy:

Policy 1: New developments should maintain natural drainage patterns when possible. Underground pipe should generally be located in street right-of-way for ease of construction and maintenance.

²³ The floodway is the stream channel and that portion of the adjacent floodplain that must remain open to permit passage of the base flood without cumulatively increasing the water surface elevation more than a designated height; the remaining portion of the floodplain is referred to as the flood fringe.

2. Impacts and Mitigation Measures

This section analyzes hydrology and water quality impacts that could result from implementation of the proposed project during the construction and post-construction (operational) periods. The section begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of the section presents hydrology and water quality impacts associated with the proposed project, and recommends mitigation measures as appropriate.

a. Criteria of Significance. The proposed project would have a significant hydrology or water quality impact if it would:

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- Substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on or off site.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site.
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.
- Otherwise substantially degrade water quality.
- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- Expose people or structures to inundation by seiche, tsunami or mudflow.

b. Less-Than-Significant Hydrology and Water Quality Impacts. Less-than-significant impacts related to hydrology and water quality are described below.

(1) Failure of a Levee or Dam. The project site is not located within a dam failure inundation hazard area, as determined by the California Office of Emergency Services and mapped by the Association of Bay Area Governments. There are no levees in the project site vicinity. Therefore the risk from flooding due to failure of a levee or dam would be less than significant.

(2) Place Housing Within a 100-Year Flood Hazard Area. Although most of the project site is located within a 100-year flood hazard area as defined by FEMA, the project does not include residential land uses. Therefore, the project would not place housing in a 100-year flood hazard area.

(3) Place Structures Within a 100-Year Flood Hazard Area. The majority of the project site is within a 100-year flood hazard area as defined by FEMA (Zone AO), and the western portion of the site is bisected by a regulatory floodway. The project grading plan shows that fill would be placed in the floodplain to raise the site elevation such that buildings would be at or above the base flood elevation.²⁴ The project sponsor would request a Conditional Letter of Map Revision based on the proposed plans and a Letter of Map Revision (LOMR) from FEMA after the site grading has been completed. The LOMR would remove the project from the floodplain shown on the FEMA Flood Insurance Rate Map. The project proposes to place fill in the flood fringe and not in the regulatory floodway. The floodway is the portion of the floodplain that must be maintained free of obstruction to allow passage of the 100-year flood. Chapter 15.58 (Flood Damage Prevention) of the City of Clayton Municipal Code disallows development in the floodway if it would raise the base flood elevation by more than 1 foot, and FEMA discourages floodway development. Because the project would preserve the regulatory floodway entirely, the potential for the project to adversely affect the floodplain storage volume, which could cause increases in peak discharge rates and water surface elevations (which could in turn impede or redirect flood flows) would be less than significant.

(4) Groundwater Supplies. The project would not use groundwater for water supply. Although dewatering during the construction period could be required, it would only result in a temporary effect on the local uppermost water-bearing zones related to near-surface excavations. In the operational phase of the project, potable water would be provided by the CCWD. Groundwater resources in the CCWD service area do not supply significant amounts of water to meet or augment water demands. Therefore, adverse impacts to groundwater supplies would be less than significant.

Primary recharge areas are located in the City greenbelts along creeks, which would not be affected by the project. In addition, the project would preserve 17,709 square feet (18.2 percent of the site) as passive open space consisting of natural vegetation, existing trees, and a slope easement; preservation of open space would maintain groundwater recharge. In addition, as discussed below and detailed in the project's Preliminary Stormwater Control Plan²⁵ (which has been approved by the City), the project will incorporate IMPs consisting of vegetated areas, which would reduce the stormwater runoff volumes resulting from increases in impervious surfaces; the infiltration allowed by the IMPs would also preserve groundwater recharge. Therefore, impacts to groundwater recharge would be less than significant.

(5) Drainage Patterns and Erosion/Siltation. Although the project would grade the site to remove buildings from the 100-year flood hazard area, grading would not significantly alter site drainage patterns; the drainage patterns would be such that project runoff would discharge into the existing stormwater drainage system. Measures to protect receiving waters from the effects of erosion and siltation during the construction phase are addressed in Mitigation Measure HYD-2. In addition, if grading is performed between October 15 and April 15, the project applicant must obtain a grading permit from the City and comply with the City's grading requirements. In the post-construction phase, the runoff from impervious areas would not cause erosion or siltation because, as discussed below and described in the Preliminary Stormwater Control Plan, the runoff would be treated in IMPs to remove sediment prior to discharge into the stormwater drainage system. In

²⁴ Carlson, Barbee & Gibson, Inc., 2009. *Preliminary Grading and Drainage Plan, Clayton Community Church, Clayton, California*. February 9.

²⁵ Carlson, Barbee & Gibson, Inc., 2010a.

addition, the project would not cause erosion or siltation that would cause or contribute to stream channel hydromodification because the IMPs required by the City would be sized to control flows that could cause hydromodification. Therefore, the potential for the project to alter drainage patterns and cause substantial erosion or siltation would be less than significant.

(6) Drainage Patterns and Flooding. As discussed above, the proposed project would not significantly alter drainage patterns, although site elevations would be raised to remove buildings from the 100-year flood hazard area. Surface runoff would discharge into the existing stormwater drainage system, which is sized to convey runoff from the 10-year storm event. Per the MRP and City requirements, the project would be required to incorporate stormwater treatment measures (IMPs), which would reduce peak flow rates for smaller, more frequently occurring storm events compared to the existing condition. Therefore, flooding on-site as a result of changes in drainage patterns would be less than significant.

(7) Consistency with General Plan. Applicable General Plan policies pertain to flood hazard prevention. The project would be consistent with the General Plan policies by protecting buildings on the site from the 100-year flood. Encroachments into the floodplain (i.e., placement of fill) would comply with federal, County and local requirements. Development in the vicinity of the floodway (the floodway would be free of encroachment) and in the floodplain would be consistent with FEMA requirements. The LOMR requested by the project applicant from FEMA would provide information required by the City to establish a drainage plan that indicates areas subject to flooding and City drainage needs.

(8) Consistency with Specific Plan. The relevant Specific Plan policy pertains to maintaining natural drainage patterns. The project would be consistent with the policy by not significantly altering the existing drainage pattern of the site, as project runoff would continue to discharge into the existing stormwater drainage system (and no fill would be placed in the regulatory floodway adjacent to Mitchell Creek).

c. Significant Hydrology and Water Quality Impacts. Implementation of the proposed project could result in significant impacts related to hydrology and water quality, as described below.

(1) Exceed the Capacity of Existing or Planned Stormwater Drainage Systems. The project may require additional on-site stormwater detention to maintain pre-project flow rates.

Impact HYD-1: Runoff from the project, due to the increase in impervious area, could exceed the capacity of the existing stormwater drainage system. (S)

The project would discharge to the existing stormwater drainage system, which is designed to convey flows for the 10-year storm. Flows in excess of the 10-year storm and up to the 100-year storm would be conveyed to Mitchell Creek via overland flow. The City of Clayton's standard conditions of approval specify that post-development peak runoff flows shall not exceed pre-development flows for up to a 100-year design storm. The project Preliminary Hydrology and Detention Study²⁶ shows that peak discharge rates for the 100-year storm would increase, thus requiring on-site flood deten-

²⁶ Carlson, Barbee & Gibson, Inc, 2010b. *Preliminary Hydrology and Detention Study, Clayton Community Church, Clayton, California*. February 2.

tion for the 100-year storm to maintain pre-project peak flow rates; this would be achieved via construction of an underground detention system, which would reduce flooding impacts from the 100-year storm to a less-than-significant level. However, the Preliminary Hydrology and Detention Study does not evaluate if flows smaller than the 100-year event but larger than the 10-year event (i.e., the 25-year event), which would be conveyed via overland flow, would require flood detention. The project's Stormwater Control Plan, as discussed under Impact HYD-3, demonstrates that flows up to the 10-year storm would be maintained at pre-project conditions, in accordance with the MRP standard for hydromodification management; therefore the potential for project flows to exceed the capacity of the underground stormwater drainage system would be less than significant. Mitigation Measure HYD-1, which requires the project applicant to provide flood detention if necessary for runoff events greater than the 10-year storm and smaller than the 100-year storm, which would be conveyed via overland flow, would reduce impacts to a less-than-significant level.

Mitigation Measure HYD-1: During the final design process, the project applicant shall calculate pre- and post-project peak flow rates for the 25-year and 50-year storm events, which would be conveyed via overland flow. If required, the project applicant shall provide on-site flood control detention for such storms where post-project peak discharge rates exceed pre-project rates, in accordance with the City of Clayton's standard conditions of approval. (LTS)

(2) **Construction- and Operational-Period Water Quality.** Demolition, grading, construction, and operation of the project could significantly affect water quality.

Impact HYD-2: Project construction period activities could generate stormwater runoff that could cause or contribute to a violation of water quality standards or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade the water quality of Mitchell Creek/Mount Diablo Creek and ultimately Suisun Bay. (S)

In areas of active construction, soil erosion may result in discharges of sediment-laden stormwater runoff into Mitchell Creek and Mount Diablo Creek, if not properly controlled. Additional sediment input to the creeks from construction of the project could contribute to degradation of downstream water quality and impairment of beneficial uses. Sediment can also be a carrier for other pollutants, such as heavy metals, nutrients, pathogens, oil and grease, fuels and other petroleum products. In addition to sediment, other pollutants associated with the various phases of construction, such as trash, paint, solvents, sanitary waste from portable restrooms, and concrete curing compounds, can discharge into and impair receiving waters if released during construction.

Mitigation Measure HYD-2, which requires preparation and implementation of a site-specific SWPPP in accordance with the Construction General Permit, in addition to obtainment of a grading permit from the City if grading is performed during the rainy season, would reduce the adverse impacts to water quality associated with discharges of construction site runoff to a less-than-significant level.

Mitigation Measure HYD-2: Consistent with the requirements of the Statewide Construction General Permit, the project applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential adverse impacts to surface water quality through the project construction period. The SWPPP shall be designed to address the following objectives: (1) all pollutants and their sources, including sources of sediment

associated with construction, construction site erosion and all other activities associated with construction activity are controlled; (2) where not otherwise required to be under a Water Board permit, all non-storm water discharges are identified and either eliminated, controlled, or treated; (3) site Best Management Practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the BAT/BCT standard; (4) calculations and design details as well as BMP controls for site run-on are complete and correct; and (5) stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

The SWPPP shall be prepared by a Qualified SWPPP Developer. The SWPPP shall include the minimum BMPs required in Attachment D for Risk Level 2 dischargers, or Attachment E for Risk Level 3 dischargers (as applicable, based on final determination of the project's Risk Level status [to be determined as part of the Notice of Intent for coverage under the Construction General Permit]). These include: BMPs for erosion and sediment control, site management/housekeeping/waste management, management of non-stormwater discharges, infiltration and runoff controls, and BMP inspection/maintenance/repair activities. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook-Construction²⁷ or the Caltrans Storm Water Quality Handbook Construction Site BMPs Manual.²⁸

The SWPPP shall include a construction site monitoring program that identifies requirements for dry weather visual observations of pollutants at all discharge locations, and as appropriate (depending on the Risk Level), sampling of the site effluent and receiving waters (receiving water monitoring is only required for some Risk Level 3 dischargers). A Qualified SWPPP Practitioner shall be responsible for implementing the BMPs at the site and performing all required monitoring and inspection/maintenance/repair activities. If the project is Risk Level 2 or 3, the project applicant shall also prepare a Rain Event Action Plan as part of the SWPPP.

The following are the types of BMPs that shall be implemented for the project (at a minimum), subject to review and approval by the Water Board/City Engineer.

Erosion Control BMPs

- *Scheduling.* To reduce the potential for erosion and sediment discharge, construction shall be scheduled to minimize ground disturbance during the rainy season. The project applicant shall:
 - Sequence construction activities to minimize the amount of time that soils remain disturbed.
 - Stabilize all disturbed soils as soon as possible following the completion of ground-disturbing work.

²⁷ California Stormwater Quality Association, 2003. *Stormwater Best Management Handbook-Construction*, with updates through 2006.

²⁸ Caltrans, 2003. *Storm Water Quality Handbook Construction Site Best Management Practices (BMPs) Manual*. March.

- Install erosion and sediment control BMPs prior to the start of any ground-disturbing activities.
- *Preservation of Existing Vegetation.* Where feasible, existing vegetation shall be preserved to provide erosion control.
- *Stabilize Soils.* Hydroseeding, geotextile fabrics and mats, mulch, or soil binders shall be used, as appropriate, to reduce erosion on exposed soil surfaces.
- *Stabilize Streambanks.* When working along stream banks or within channels, BMPs shall be implemented to minimize channel erosion and sedimentation. Proper erosion and sediment controls, such as silt fences, mulch, geotextiles, and hydroseeding, shall be used. To the extent possible, existing vegetation that stabilizes the stream banks shall be preserved.
- *Earth Dikes, Drainage Swales and Slope Drains.* Earth dikes, drainage swales, or slope drains shall be constructed to divert runoff away from exposed soils and stabilized areas, and redirect the runoff to a desired location, such as a sediment basin.
- *Outlet Protection and Velocity Dissipation Devices.* Rock, concrete rubble, or grouted riprap shall be installed at culvert and pipe outlets to drainage conveyances, to prevent scour of the soil caused by concentrated high-velocity flows.

Sediment Control BMPs

- *Silt Fence/Fiber Roll.* Silt fences or fiber rolls shall be installed around the perimeter of the areas affected by construction, at the toe of slopes, around storm drain inlets, and at outfall areas, to prevent offsite sedimentation.
- *Street Sweeping and Vacuuming.* Areas with visible sediment tracking shall be swept or vacuumed daily, to prevent the discharge of sediment into the stormwater drainage system or creeks.
- *Storm Drain Inlet Protection.* Storm drains shall be protected using a filter fabric fence, gravel bag barrier, or other methods, to allow sediments to be filtered or settle out before runoff enters drain inlets.
- *Check Dams.* Barriers shall be constructed of rock, gravel bags, sand bags, or fiber rolls across a constructed swale or drainage ditch, to reduce the effective slope of the channel. This reduces the velocity of runoff, which allows sediment to settle and reduces erosion.
- *Sediment Traps.* Sediment traps shall be constructed where sediment-laden runoff may enter the stormwater drainage systems or creeks. Sediment traps are appropriate for drainage areas less than 5 acres.

Wind Erosion Control BMPs

- *Dust Control.* Potable water shall be applied using water trucks to alleviate nuisance caused by dust. Water application rates shall be minimized to prevent erosion and runoff.
- *Stockpile Management.* Silt fences shall be used around the perimeter of stockpiles, and stockpiles shall be covered to prevent wind dispersal of sediment.

Tracking Controls

- *Stabilized Construction Entrance/Exit.* Construction site entrances and exits shall be graded and stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.
- *Stabilized Construction Roadway.* Access roads, parking areas, and other on-site vehicle transportation routes shall be stabilized immediately after grading is completed, and frequently maintained to prevent erosion and to control dust.
- *Tire Wash.* A tire washing facility shall be installed at stabilized construction access points to allow for tire washing when vehicles exit the site to prevent tracking of dirt and mud onto public roads.

Non-Stormwater Controls

- *Dewatering.* The SWPPP shall include a dewatering plan for non-contaminated ground-water specifying methods of water collection, transport, treatment, and discharge. The discharger shall consult with the Water Board regarding any required permit (other than the Construction General Permit) or Basin Plan conditions prior to discharging ground-water to land, storm drains, or receiving waters. Water produced by dewatering shall be impounded in holding tanks, sediment basins, or other holding facilities to settle the solids and provide other treatment as necessary prior to discharge to receiving waters. Discharges of water produced by dewatering shall be controlled to prevent erosion.
- *Illicit Connection/Discharge Detection and Reporting.* Contractors shall regularly inspect the site for evidence of illicit connections, illegal dumping, or discharges. Such illicit activities shall immediately be reported to the City.
- *Vehicle and Equipment Cleaning.* Construction equipment shall be washed regularly in a designated stabilized area on-site, or offsite. Steam cleaning shall not be performed on-site. Phosphate-free, biodegradable soaps shall be used for on-site activities. Wash water from on-site activities shall be contained and infiltrated, to avoid discharges to drain inlets and creeks.
- *Vehicle and Equipment Fueling and Maintenance.* Vehicles and equipment shall be inspected daily for leaks. Perform vehicle maintenance and fueling off-site whenever possible. If maintenance and fueling must take place on-site, designated areas shall be located at least 50 feet away from storm drain inlets, drainage courses, and receiving waters. Fueling areas shall be protected with berms and dikes to prevent infiltration and runoff, and to contain spills. Fueling shall be performed on level grade. Nozzles shall be equipped with automatic shutoffs to control drips. Stored fuel shall be enclosed or covered. Drip pans shall be used for all vehicle and equipment maintenance activities. Spill kits shall be available in maintenance and fueling areas, and spills shall be removed with absorbent materials and not washed down with water. If spills or leaks occur, contaminated soil and cleanup materials shall be properly disposed.
- *Paving and Grinding Operations.* Proper practices shall be implemented to prevent infiltration and runoff, and to properly dispose of waste. Paving and grinding activities shall be avoided during the rainy season, when feasible.

Waste Management and Materials Pollution Control BMPs

- *Material Delivery and Storage and Use.* Materials such as detergents, concrete compounds, petroleum products, and hazardous materials shall be stored in a designated area away from vehicular traffic, drain inlets, and Mitchell Creek. The materials shall be stored on pallets with secondary containment. Spill clean-up materials, material safety data sheets, a material inventory, and emergency contact numbers shall be maintained in the storage area.
- *Spill Prevention and Control.* Proper procedures shall be implemented to contain and clean-up spills and prevent material discharges into the storm drain system.
- *Waste Management.* Solid waste shall be collected in designated areas, and stored in watertight containers located in a covered area, or with secondary containment. Waste shall be removed from the site regularly. Hazardous wastes shall be stored and disposed in accordance with applicable regulatory requirements.
- *Sanitary/Septic Waste Management.* Portable toilets shall be located at least 50 feet away from drain inlets and waterbodies, and away from paved areas.
- *Stockpile Management.* Stockpiles shall be surrounded by sediment controls, covered, and located at least 50 feet from concentrated flows of stormwater, inlets, and creeks.
- *Concrete Waste Management.* Concrete washout shall be performed offsite, or in a designated area at least 50 feet away from storm drain inlets or creeks. A temporary pit or bermed area shall be constructed where the waste can be discharged and allowed to set for proper disposal.
- *Training.* Construction site personnel shall receive training on implementing all BMPs included in the SWPPP. A Qualified SWPPP Practitioner shall perform all BMP inspection/maintenance/repair and site monitoring activities. (LTS)

Impact HYD-3: Operational period activities within the project site could generate stormwater runoff that could cause or contribute to a violation of water quality standards or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade the water quality of Mitchell Creek/Mount Diablo Creek and ultimately Suisun Bay. (S)

Mixed use developments are a source of various stormwater pollutants that may be deposited on impervious surfaces, such as sediment, metals, organic compounds such as pesticides, polynuclear aromatic hydrocarbons, oil and grease, pathogens, nutrients, and trash and debris. Such pollutants may also be present in non-stormwater discharges, such as runoff from landscape irrigation. The project would increase impervious area from 24,680 square feet to 75,302 square feet, which would increase the area upon which pollutants would accumulate. The increase in impervious area would also increase runoff volumes and pollutant loading into Mitchell Creek and Mount Diablo Creek. If not properly controlled, pollutant loading to receiving waters could adversely affect water quality and beneficial uses of waterways.

The project applicant has submitted a Preliminary Stormwater Control Plan²⁹ (SCP) to the City (available for review at the Community Development Department), in accordance with the County's *Stormwater C.3 Guidebook, Stormwater Quality Requirements for Development Applications*. The SCP identifies the locations and sizes (using required engineering design calculations) of IMPs designed for water quality treatment and flow control (including control of stream channel hydro-modification effects). The IMPs consist of vegetated bioretention areas, flow-through planters, and in-ground planters. The SCP also summarizes the source control BMPs to minimize the discharge of pollutants from potential source areas (such as pesticide use in landscaped areas, and pollutants in refuse storage areas). The SCP meets the City's requirements, and its implementation would reduce operational impacts on water quality to a less-than-significant level. However, lack of maintenance is the primary reason why IMPs fail to function as designed. Therefore, per the County's *Stormwater C.3 Guidebook*, the City must verify that the IMPs would be adequately maintained. This includes preparation of an Operation and Maintenance Plan that identifies the entity that will be responsible for maintaining the IMPs in perpetuity and the detailed requirements for each IMP. The project applicant intends to form an Ownership Association that would be responsible for maintaining the IMPs. Mitigation Measure HYD-3, which requires the project applicant to submit an Operation and Maintenance Plan for City approval, would ensure that the stormwater management facilities identified in the SCP would be maintained and would reduce the adverse impacts associated with post-construction stormwater runoff to a less-than-significant level.

Mitigation Measure HYD-3: In accordance with the MRP, the County's *Stormwater C.3 Guidebook*, and City of Clayton Municipal Code Chapter 13.12, the project applicant shall submit an Operations and Maintenance (O&M) Plan to the City with the application for a building permit. The O&M Plan shall identify the party responsible for maintenance and the sources of funds, and shall include the maintenance agreement for the Ownership Association. The O&M Plan shall include the design information/calculations and construction specifications for the Integrated Management Practices (IMPs), a maintenance plan, schedule, inspection checklist, and maintenance log for each stormwater treatment facility. The project applicant shall execute a Covenant and Agreement (C&A) acknowledging and accepting these maintenance obligations. This C&A shall be recorded at the County Recorder's Office in order to provide constructive notice to future property owners. (LTS)

²⁹ Carlson, Barbee & Gibson, Inc., 2010a.

V. ALTERNATIVES

The *CEQA Guidelines* require the analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project's basic objectives and avoid or substantially lessen any of the significant effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.¹ CEQA states that an EIR should not consider alternatives "whose effect cannot be ascertained and whose implementation is remote and speculative."

The proposed project has been described and analyzed in the previous chapters, with an emphasis on significant impacts resulting from the project and recommended mitigation measures to avoid these impacts. The following discussion is intended to inform the public and decision-makers of the relative impacts of four potentially feasible alternatives to the proposed project. A discussion of the environmentally superior alternative is also provided.

The four alternatives to the proposed project discussed in this chapter include the following:

- The **No Project alternative**, under which the project site would not be redeveloped in the short-term, and would remain generally in its existing condition.
- The **Policy Consistency alternative**, which assumes that the site would be redeveloped with a mix of uses (retail, office, and residential uses) consistent with the Town Center Specific Plan, General Plan, Zoning Ordinance, and Parking Code (and development would not exceed the maximum building envelope permitted in the General Plan). This alternative would entail the development of 40,000 square feet of ground-floor retail uses, 20,000 square feet of second-floor office uses, and 20 second-floor multi-family residential units.
- The **Mixed Use/Church alternative**, which assumes that development of the site would occur in general accordance with the development guidelines of the Specific Plan, General Plan, and Zoning Ordinance, but the Town Center Specific Plan would be amended to allow Religious Assembly uses in areas designated Town Center Commercial (with a Use Permit). Under this alternative, a new sanctuary would be developed on the project site, but it would be smaller than the one currently proposed (the sanctuary itself would be 12,000 square feet and would contain only 250 fixed seats). Other uses that would be developed as part of this alternative include 4,000 square feet of church/accessory space, 15,000 square feet of ground-floor retail space, and 11 second-floor multi-family residential units.
- The **Off-Site alternative**, which assumes that the project would be developed on an approximately 5.2-acre site outside the Town Center. The off-site location, which is located just east of the intersection of Marsh Creek Road and Pine Lane in unincorporated Contra Costa County, is informally known as the Sorensen Property.

¹ *CEQA Guidelines*, 2007. § 15126.6.

Following is a discussion of each alternative, and an analysis of the anticipated environmental impacts of each alternative. This analysis compares the anticipated impacts of each alternative to the impacts associated with the proposed project, and includes a determination as to whether or not each alternative would reduce, eliminate, or create new significant impacts.

A. NO PROJECT ALTERNATIVE

1. Principal Characteristics

Under the No Project alternative, the site would remain in its existing condition and in the near-term would continue to be used by the Clayton Community Church. The former Pioneer Inn would remain on the site, as would the adjacent parking lot, and would continue to be used by the church for office, administrative, and community space. No redevelopment activities would occur in the near-term. Under the No Project scenario, minimal improvements to landscaping and the façade of the former Pioneer Inn building would be undertaken but no buildings would be demolished or constructed.

In the near-term, the church would continue to hold worship services at Diablo View Middle School, on 300 Diablo View Lane in Clayton. However, in the longer-term, the church would likely seek a permanent location for worship services and other church activities. The City of Clayton Redevelopment Agency has offered in the past to purchase the site and may be willing to do so should Clayton Community Church wish to sell.

None of the entitlements requested as part of the project would be granted under this alternative. In particular, the General Plan, Zoning Ordinance, and Town Center Specific Plan would not be amended to allow religious assembly uses to be developed in the Town Center; the Parking Schedule sections of the Municipal Code (17.37.030D and 17.37.030C) would not be amended to allow for reduced parking requirements on the project site; the former Pioneer Inn would not be removed from the list of historic resources in the Town Center Specific Plan; and Figure 4-3 (Illustrative Site Plan) and Figure 4-5 (New City Hall Site) in the Specific Plan would not be revised to reflect the proposed project. The portion of the site currently zoned Limited Commercial would not be rezoned to Planned Development.

The No Project alternative would not achieve any of the objectives of the proposed project. In particular, the alternative would not:

- Develop new church space in Clayton to serve the local community and fulfill a public need for spiritual and social gatherings.
- More effectively provide social services to the community, including youth and seniors.
- Bring additional patrons into downtown Clayton to support existing commercial businesses in downtown Clayton, and attract economic investment.
- Extend the Main Street commercial corridor through the development of new structures containing retail space adjacent to Main Street and careful site planning.
- Enhance the walkability of downtown Clayton.
- Build a sustainable project that efficiently uses energy and water, preserves open space and important vegetation, and contributes to the vitality of Clayton.

2. Analysis of the No Project Alternative

The No Project alternative is evaluated for each environmental topic listed below.

a. Land Use and Planning Policy. Implementation of the No Project alternative would result in the continuation of existing land uses within the project site. The alternative would not disrupt or divide the physical arrangement of an established community, and the existing former Pioneer Inn structure would remain on the site. The type and intensity of land use on the project site would not be altered in a manner that would cause it to be substantially incompatible with surrounding land uses or the overall character of surrounding neighborhoods.

The No Project alternative would conflict with policies in the General Plan and Town Center Specific Plan that call for a high-profile development on the site, and an expansion of commercial activities on the site (and throughout the Town Center). However, the alternative would avoid Impact LU-1, which would result from the introduction of religious assembly uses to the Town Center. On the other hand, as a long-term land use, the No Project alternative would not be consistent with applicable planning documents because it would not develop the site with uses that enhance the walkability of downtown, extend the Main Street commercial corridor, or increase the vitality of the Town Center. Although the project would introduce religious assembly uses to the site that are not currently permitted in the City's planning documents, it would also introduce 7,957 square feet of street-level retail uses to the site that could benefit the downtown commercial district, and bring more visitors to downtown.

b. Transportation, Circulation, and Parking. The No Project alternative would avoid the proposed project's significant impacts to the City's parking supply and less-than-significant impacts to other elements of the City's transportation system. In particular, the alternative would not introduce new vehicle trips to the project site, and would not increase parking demand in and around downtown Clayton (in either the project or cumulative conditions). Therefore, the alternative would avoid Impact TRANS-1 and Impact TRANS-2. The pathway along the Mitchell Creek greenbelt would remain in its current condition and would not be linked via new pathways to Main Street. However, it should be noted that the Clayton Community Church, under current conditions, generates trips associated with worship services at Diablo View Middle School and employee and congregant activities at the project site. Although these vehicle trips do not generate significant adverse impacts to the transportation system, they would continue as part of the No Project alternative.

c. Air Quality and Global Climate Change. Implementation of the No Project alternative would avoid the significant construction-period impacts to air quality that would result from the project because the alternative would not include ground-disturbing activities. The alternative would not generate new vehicle trips, and thus would avoid the project's less-than-significant contribution to regional pollutant levels. Similar to the proposed project, the No Project alternative would not generate significant odors. Because the No Project alternative would not result in development activity on the site, and would not generate new vehicle trips that would generate greenhouse gases, the alternative would not make a significant contribution to the cumulative impact of global climate change. The proposed project would also not make a significant contribution to global climate change, but it should be noted that the project would generate more greenhouse gas emissions than the No Project alternative. (However, it should be noted that ongoing activities conducted by Clayton Community Church – including worship services – currently contribute on a small scale to climate change.)

d. Noise. The No Project alternative would avoid the two significant noise-related impacts that would result from the proposed project because the alternative would not result in the demolition of the existing Pioneer Inn building and the development of new structures on the site (which would temporarily increase noise levels), or the exposure of site occupants to unacceptable levels of roadway noise.

e. Cultural Resources. The No Project alternative would retain the former Pioneer Inn building, which is listed as a historic resource in the Town Center Specific Plan. However, as discussed in Section IV.F, Cultural Resources, the structure (due to many subsequent renovations) is not eligible for the California Register and is not otherwise considered a historic resource pursuant to CEQA. Therefore, preservation of the building would not represent a substantial environmental gain (in the context of cultural resources). However, the No Project alternative would avoid substantial ground disturbance activity in the site and would thus avoid potential impacts to archaeological deposit CA-CCO-222, which may contain important prehistorical information. In addition, because the project would avoid ground disturbance activity, it would also avoid impacts to potential historic-period archaeological materials (including those associated with the early history of Clayton), human remains, and paleontological resources. The alternative would also not introduce new uses to downtown Clayton. However, Clayton has evolved organically over time, and consists of many non-contributing buildings such that a new structure would not in and of itself compromise the historic integrity of the area (particularly if the building were to conform to the design guidelines in the Town Center Specific Plan).

f. Visual Resources. The No Project alternative, because it would not result in substantial physical changes to the site, would avoid the less-than-significant impacts to visual resources that would result from the project. No buildings or trees would be removed from the site. In addition, no new development would be introduced to the site that would have the potential to alter views from roadways around the site (however, it should be noted that the buildings proposed as part of the project would not block scenic views). In addition, the alternative would not introduce new lighting to the site and would avoid Impact VIS-1, which relates to the potential for light spillover onto adjacent properties.

g. Hydrology and Water Quality. Because the No Project alternative would not result in additional development activity on the site or an expansion of current uses, it would avoid the less-than-significant and significant impacts of the project on hydrology and water quality. In particular, the alternative would not result in new impervious surfaces on the site, and so would not generate runoff that could exceed the capacity of the stormwater drainage system. In addition, no construction or new operational activities would occur on the site that would generate a new source of polluted runoff. The No Project alternative would not place new material in a flood zone (although the placement of fill in a flood zone as part of the project would not result in significant impacts).

B. POLICY CONSISTENCY ALTERNATIVE

1. Policy Consistency Alternative

The intent of the Policy Consistency alternative is to develop the site in a way that conforms to the policy directives in the General Plan, Zoning Ordinance, Parking Code, and Town Center Specific Plan. In particular, development on the site would include only retail, office, and residential uses. No

religious assembly or associated uses would be developed on the site. In addition, overall development on the site would be intensified as part of the Policy Consistency alternative (compared to development proposed as part of the project), in accordance with the Town Center Specific Plan, which identifies the site as a major future activity center in downtown Clayton. The objective of this alternative is to illustrate the environmental effects of a moderately dense mixed-use project on the site that conforms to the policy intent and density limitations of the General Plan, Zoning Ordinance, and Town Center Specific Plan.

No amendments to the text of the General Plan or Zoning Ordinance would be required. However, the portion of the site zoned limited commercial would likely be rezoned to Planned Development in order to allow for a cohesive design across the entire site. The text of the Town Center Specific Plan would be amended to remove the former Pioneer Inn from the list of historic resources and Figures 4-3 (Illustrative Site Plan) and 4-15 (The New City Hall Site) would be amended to reflect the uses proposed and building configuration of the alternative. As part of this alternative, the former Pioneer Inn would be demolished to make way for new construction.

A total of 80,000 square feet of interior space would be developed as part of the alternative, including the following:

- 40,000 square feet of ground-floor retail space.
- 20,000 square feet of second- and potentially third-floor office space.
- 20,000 square feet of second- and potentially third-floor residential space (comprising approximately 20 residential units, with an average per-unit size of 1,000 square feet).

No detailed site design has been prepared for this alternative; please see Figure V-1 for a conceptual land use configuration of the alternative. However, on a conceptual basis, this alternative could consist of two or three two-to three-story buildings with an approximate combined footprint of approximately 26,000 square feet to 35,000 square feet (not including space used for building maintenance, internal circulation, or other accessory uses). The buildings would be oriented to Main Street in order to attract pedestrian traffic and enhance the streetscape. All office and residential uses would be located on the second and third floors of the buildings.

Since this alternative would be consistent with the Town Center Specific Plan, required parking would be reduced per Schedule 17.37.030D (Reduction of Required Parking and Loading Spaces During Waiver Period). Therefore, approximately 140 on-site parking spaces would be required as part of this alternative, assuming 20 two-bedroom residential units. This parking would be accommodated in a 42,000-square-foot parking lot located behind the buildings fronting Main Street (assuming an average of 300 square feet per parking space, including parking aisles). The alternative would meet the lot coverage, building height, open space, and other standards specified in the General Plan, Zoning Ordinance, and Town Center Specific Plan. However, to meet these requirements, careful site planning would be necessary, along with the use of compact parking spaces. Accessory uses and utilities would need to be well-integrated with the proposed development in order to efficiently use space.

The Policy Consistency alternative would achieve the following project objectives:

- Bring additional patrons into downtown Clayton to support existing commercial businesses in downtown Clayton, and attract economic investment.

- Extend the Main Street commercial corridor through the development of new structures containing retail space adjacent to Main Street and careful site planning.
- Enhance the walkability of downtown Clayton.
- Build a sustainable project that efficiently uses energy and water, preserves open space and important vegetation, and contributes to the vitality of Clayton.

However, the alternative would not achieve the following objectives:

- Develop new church space in Clayton to serve the local community and fulfill a public need for spiritual and social gatherings.
- More effectively provide social services to the community, including youth and seniors.

2. Analysis of the Policy Consistency Alternative

The Policy Consistency alternative is evaluated for each environmental topic listed below.

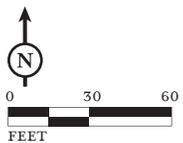
a. Land Use and Planning Policy. Like the proposed project, the alternative would not obstruct access to and around downtown Clayton and thus would not divide an established community. In addition, the mix of retail, office, and residential uses that would result from the alternative would be compatible with downtown Clayton, which is characterized by a mix of uses. This alternative would require fewer amendments to the General Plan, Zoning Ordinance, and Town Center Specific Plan compared to the proposed project (although the portion of the site zoned limited commercial would likely be rezoned to Planned Development, the text of the Town Center Specific Plan would be amended to remove the former Pioneer Inn from the list of historic resources, and Figures 4-3 (Illustrative Site Plan) and 4-15 (The New City Hall Site) would be amended to reflect the uses and building configuration of the alternative). In addition, the alternative would allow for the mix of uses anticipated for the area in the Town Center Specific Plan, would not introduce new land uses (religious assembly uses) not called for in the Specific Plan, and would not be expected to compromise the future development of the Town Center as a commercial district. Therefore, the Policy Consistency alternative would avoid Impact LU-1.

b. Transportation, Circulation, and Parking. The trip generation for the Policy Consistency alternative (and Mixed Use/Church alternative) is shown in Table V-1. As shown in the table, the Policy Consistency alternative would generate approximately 80 weekday AM Peak Hour vehicle trips, 189 weekday PM Peak Hour trips, and 137 Sunday mid-day Peak Hour trips. In comparison, the project would generate 104 weekday AM Peak Hour trips, 235 weekday PM Peak Hour trips, and 390 Sunday mid-day Peak Hour trips. The Policy Consistency alternative would generate 24 fewer AM Peak Hour vehicle trips, 46 fewer PM Peak Hour trips, and 253 fewer Sunday mid-day Peak Hour trips. As discussed in Section IV.B, Transportation, Circulation, and Parking, the project would not result in any significant impacts to study area intersections. As shown in Table IV.B-5, the study intersections are forecast to operate at LOS B or better in the Cumulative plus Project scenario during all peak hours analyzed. With the Policy Consistency alternative, the study intersections would continue to operate at a satisfactory LOS during all peak hours in the Cumulative plus Project condition. Because the alternative would include all parking on-site, it would avoid Impact TRANS-1 and Impact TRANS-2.



FIGURE V-1

LSA



SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., FEB. 9, 2010.

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Clayton Community Church Project EIR
 Policy Consistency Alternative -
 Conceptual Land Use Configuration

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Table V-1: Project Alternatives Trip Generation Summary

Land Use	Size	Unit	Weekday AM Peak Hour			Weekday PM Peak Hour			Sunday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Trip Rates											
Retail ¹	1	TSF	0.61	0.39	1.00	1.83	1.90	3.73	1.53	1.59	3.12
Office ¹	1	TSF	1.36	0.19	1.55	0.25	1.24	1.49	0.08	0.06	0.14
Church Accessory/ Office ²	1	person	1.00	0.00	1.00	0.00	1.00	1.00	–	–	–
Residential ¹	1	DU	0.07	0.37	0.44	0.35	0.17	0.52	0.22	0.23	0.45
Sanctuary (Weekday, AM and PM) ³	1	person	1.00	1.00	2.00	1.00	1.00	2.00	–	–	–
Sanctuary (Sunday) ⁴	1	person	–	–	–	–	–	–	0.36	0.36	0.73
Trip Generation – Policy Consistency Alternative											
Retail	40	TSF	24	16	40	73	76	149	61	64	125
Office	20	TSF	27	4	31	5	25	30	2	1	3
Residential	20	DU	1	7	9	7	3	10	4	5	9
Total			53	27	80	85	104	189	67	69	137
Trip Generation – Mixed Use/Church Alternative											
Retail	15	TSF	9	6	15	27	29	56	23	24	47
Sanctuary (Weekday AM) ³	40	persons	40	40	80	–	–	–	–	–	–
Sanctuary (Weekday PM) ³	95	persons	–	–	–	95	95	190	–	–	–
Sanctuary (Sunday)	250	persons	–	–	–	–	–	–	90	90	180
Church Accessory/ Office ⁵	14	persons	14	0	14	0	14	14	–	–	–
Residential	11	DU	1	4	5	4	2	6	2	3	5
Total			64	50	114	126	140	266	115	117	232

¹ Trip rates referenced from the Institute of Transportation Engineers *Trip Generation*, 8th Edition (2008). Land Use Codes: 820–Shopping Center; 710–General Office Building; and 230–Residential Condominium/Townhouse.

² Trip rates based on proposed office schedule (i.e., Monday-Friday, 8:00 a.m. to 5:00 p.m.) and number of staff members (i.e., 14).

³ Trip rates based on proposed schedules and attendance of non-Sunday activities at the proposed Church (i.e., Bible Study in the AM Peak Hour; and Rehearsal, Leadership Council, Prayer Gathering, and Worship Team sessions in the PM Peak Hour).

⁴ Trip rates based on vehicle surveys conducted by National Data & Surveying Services and attendance numbers collected by Clayton Community Church on Sunday, October 10, 2010.

⁵ Based on 14 office workers, as in proposed project.

TSF = 1,000 square feet; DU = dwelling unit

Source: LSA Associates, Inc., 2010.

c. Air Quality and Global Climate Change. Compared to the proposed project, the Policy Consistency alternative would result in 24 fewer AM Peak Hour vehicle trips, 46 fewer PM peak hour trips, and 253 fewer Sunday mid-day peak hour trips. As described in Section IV.C, Air Quality, project-related vehicle trips would be the primary source of criteria air pollutants. Therefore, similar to the proposed project, this alternative would not result in any significant impacts related to criteria

pollutants. Also similar to the proposed project, the Policy Consistency alternative would not be expected to generate odors or result in impacts to sensitive receptors in the project site vicinity, or result in an exceedance of the operational thresholds of the established clean air plan. Like the project, construction activities associated with the Policy Consistency alternative would generate short-term emissions of pollutants. However, implementation of Mitigation Measure AIR-1 would reduce air pollution from construction activities to a less-than-significant level.

As described in Section IV.D, Global Climate Change, project-related vehicle trips are the primary source of project greenhouse gas emissions. Therefore, even with the increased interior building space associated with the Policy Consistency alternative compared to the proposed project (and taking into account the reduced trip generation of the alternative), the alternative would not be expected to make a significant contribution to global climate change (that is, it would not exceed the BAAQMD threshold of 1,100 metric tons per year of CO₂e).

d. Noise. Compared to the proposed project, the Policy Consistency alternative would result in 24 fewer AM Peak Hour vehicle trips, 46 fewer PM peak hour trips, and 253 fewer Sunday mid-day peak hour trips. Due to this reduction in project trips compared to the proposed project, traffic noise associated with implementation of this alternative would be less than that generated by the proposed project. Similar to the proposed project, the Policy Consistency alternative would generate unacceptable levels of construction-period noise, and occupants of the site would be exposed to unacceptable levels of roadway noise. However, these impacts would be reduced to a less-than-significant level with implementation of Mitigation Measure NOISE-1 and Mitigation Measure NOISE-2. Also similar to the proposed project, this alternative would not be expected to result in any groundborne noise or vibration impacts on sensitive receptors in the site vicinity. Operational noise associated with implementation of this alternative would be dominated by parking lot activities and delivery loading and unloading activities. These noise sources are similar to what is currently experienced in the site vicinity and would still be expected to be lower than noise levels from traffic on surrounding roadways.

e. Cultural Resources. The Policy Consistency alternate would result in impacts to cultural resources that are almost identical to those that would result from the proposed project. Like the project, the alternative would result in the demolition of the former Pioneer Inn building (which is listed as a historic resource in the Town Center Specific Plan). However, this structure is not eligible for the California Register and is not otherwise considered a historic resource pursuant to CEQA. The alternative would include a de-listing of the former Pioneer Inn building, which is a warranted action based on the lack of historic integrity of the structure. The alternative would result in a footprint of ground disturbance that is similar to (although slightly larger than) the proposed project, and thus could also adversely affect archaeological deposit CA-CCO-222, historic-period archaeological materials, human remains, and paleontological resources. The alternative would introduce new uses to downtown Clayton. However, these new buildings would be designed in accordance with the design guidelines in the Town Center Specific Plan and would – similar to the proposed project – not be expected to substantially adversely affect the historic integrity of downtown Clayton.

f. Visual Resources. The Policy Consistency alternative would result in impacts to visual resources that are similar to those that would result from the proposed project. The alternative would remove the former Pioneer Inn building from the site along with a number of mature trees that would be roughly equivalent to those removed as part of the project. Because the alternative would result in

a similar building configuration as the proposed project, it would allow for the substantial preservation of the very large trees on the site, particularly those near Main Street. The structures developed as part of the alternative would be slightly more massive than those proposed as part of the project, but would not substantially exceed the height of the sanctuary building proposed as part of the project and would be unlikely to substantially block scenic views available from streets surrounding the site. Like the proposed project, the alternative would introduce new lighting to the site that could spill over onto adjacent properties.

g. Hydrology and Water Quality. The Policy Consistency alternative would result in impacts to hydrology and water quality that would be almost identical to those associated with the proposed project. In particular, the alternative would result in new impervious surfaces on the site, and so would generate runoff that could exceed the capacity of the stormwater drainage system. Namely because development on the site would be intensified compared to the proposed project, impacts to the stormwater drainage system could be incrementally increased. In addition, runoff associated with construction activities and ongoing use of the site would generate a new source of polluted runoff. Like the project, the Policy Consistency alternative would place new material in a flood zone, although this would not result in a significant impact, namely because the regulatory floodway adjacent to Mitchell Creek would remain unimpeded.

C. MIXED USE/CHURCH ALTERNATIVE

1. Mixed Use/Church Alternative

The intent of the Mixed Use/Church alternative is to develop a fully mixed-use alternative that also accommodates church uses, but includes a sanctuary building that is reduced compared to the one proposed as part of the project. Overall development would be slightly increased compared to the proposed project in order to allow for a viable mixed use development on the site. The primary objective of this alternative is to illustrate the environmental effects of a mixed use alternative containing retail, residential, and religious assembly uses (including a smaller sanctuary with fewer fixed seats).

The Mixed Use/Church alternative would require most of the entitlements requested as part of the project, including the following:

- Amendment of the text of the General Plan to allow religious assembly uses in areas designated Town Center.
- Amendment of the text of the Municipal Code to allow for religious assembly uses in the Town Center Commercial land use designation of the Town Center Specific Plan and reduced parking requirements for religious assembly uses.
- Amendment of the text of the Town Center Specific Plan to add religious assembly uses as a use subject to a Use Permit in areas designated Town Center Commercial and to remove the former Pioneer Inn from the list of historic resources.
- Amendment of Figures 4-3 (Illustrative Site Plan) and 4-15 (The New City Hall Site) of the Town Center Specific Plan to reflect the uses and building configuration proposed as part of the alternative.

As part of the Mixed Use/Church alternative, the former Pioneer Inn would be demolished to make way for new construction.

A total of 42,000 square feet of interior space would be developed as part of the alternative, including the following:

- 15,000 square feet of ground-floor retail space.
- A 12,000-square-foot church sanctuary (containing 250 fixed seats) and 4,000 square feet of church accessory/office uses.
- 11,000 square feet of second-floor residential space (comprising approximately 11 residential units, with an average per-unit size of 1,000 square feet).

Because the church sanctuary would provide only 250 fixed seats instead of 500 fixed seats (as proposed as part of the project), the Church may need to hold three separate worship services on Sundays, instead of two services (as proposed as part of the project), and/or hold worship services on days of the week other than Sundays. Other large events held indoors may also need to be divided into two or more smaller-attendance events. No detailed site design has been prepared for the Mixed Use/Church alternative; please see Figure V-2 for a conceptual land use configuration of the alternative. However, on a conceptual basis, this alternative could consist of two two-story buildings containing ground-floor retail uses and second-floor residential uses, and one one- or two-story building containing the church and accessory uses. The buildings would have an approximate combined footprint of approximately 27,000 square feet (not including space used for building maintenance, internal circulation, or other accessory uses). The buildings containing retail space would be oriented to Main Street in order to attract pedestrian traffic and enhance the streetscape.

This alternative is based on the assumption that required parking would be calculated with the parking reductions permitted in Schedule 17.37.030D. Thus the alternative would be required to provide 134 on-site parking spaces, assuming 11 two-bedroom residential units.

Assuming an average of 300 square feet per parking space, including parking aisles, the parking lot for the Mixed Use/Church alternative would comprise 40,200 square feet. This parking could be accommodated in a parking lot located behind the buildings fronting Main Street and on the ground floor of the backs of some of the buildings fronting Main Street, but only if the building footprint of the alternative comprises 27,000 square feet. Assuming a larger footprint, some of the required parking may need to be provided off-site, presumably through shared parking agreements of the type contemplated as part of the proposed project. Assuming a 27,000-square-foot building footprint, and the provision of all required parking on-site, the alternative would meet the lot coverage, building height, open space, and other standards specified in the General Plan, Zoning Ordinance, and Town Center Specific Plan. Similar to the Policy Consistency alternative, to meet applicable land use planning requirements, careful site planning would be necessary, along with the use of compact parking spaces. Accessory uses and utilities would need to be well-integrated with the proposed development in order to efficiently use space.

The Mixed Use/Church alternative would achieve all objectives of the proposed project.

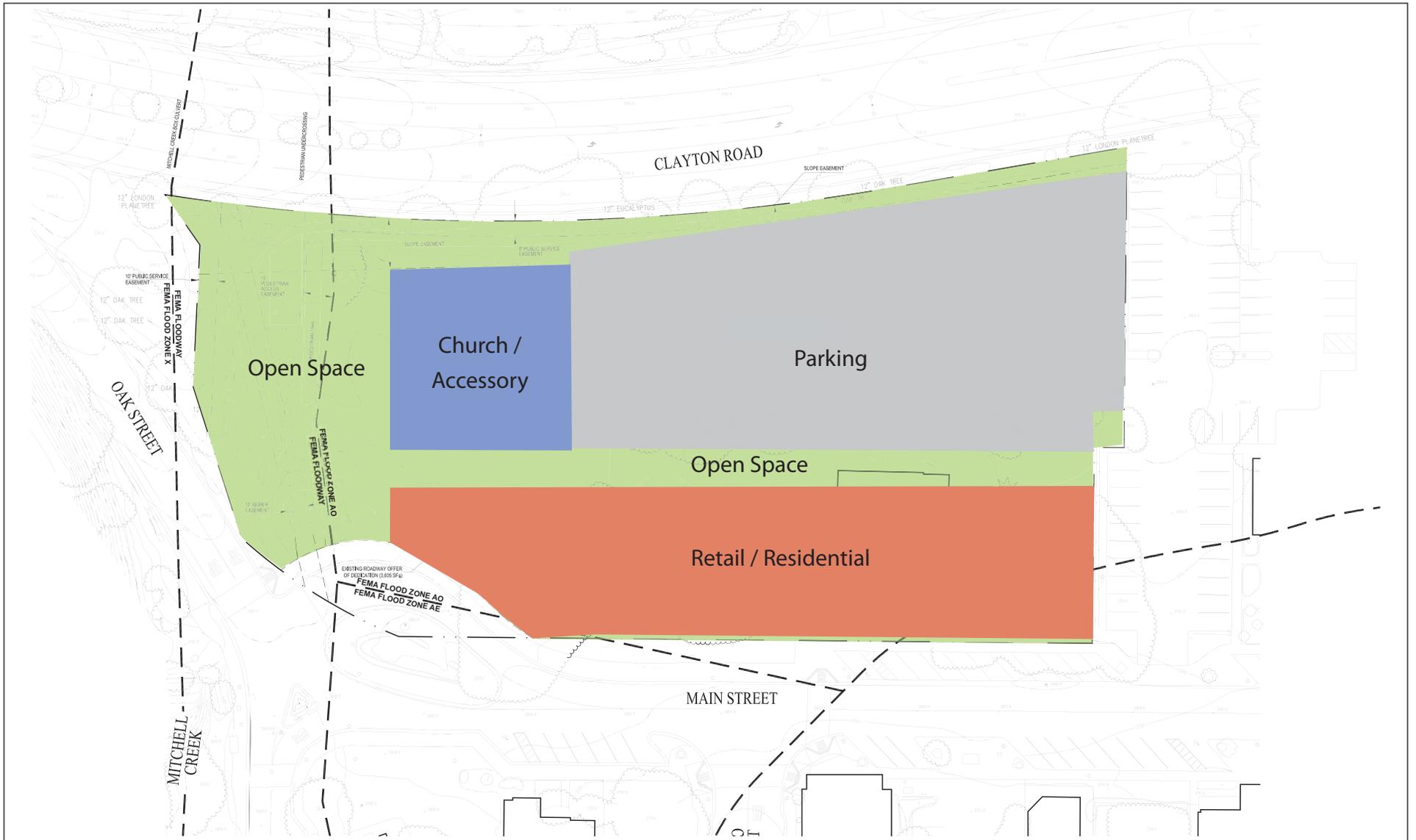
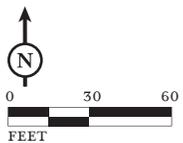


FIGURE V-2

LSA



SOURCE: WILLIAM HEZMALHALCH ARCHITECTS, INC., FEB. 9, 2010.

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Clayton Community Church Project EIR
 Mixed Use/Church Alternative -
 Conceptual Land Use Configuration

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2. Analysis of the Mixed Use/Church Alternative

The Mixed Use/Church alternative is evaluated for each environmental topic listed below.

a. Land Use and Planning Policy. The Mixed Use/Church alternative would result in land use and planning policy impacts that are similar to those that would result from the proposed project. Like the proposed project, the alternative would not obstruct access to and around downtown Clayton and thus would not divide an established community. In addition, the mix of retail, church, and residential uses that would result from the alternative would not be incompatible with downtown Clayton, which is also characterized by a mix of uses. This alternative would require the same amendments to the General Plan, Zoning Ordinance, and Town Center Specific Plan as the proposed project. Like the project, the alternative would introduce religious assembly uses to downtown Clayton that are not currently permitted in the Town Center Specific Plan. Although the introduction of these uses would represent a significant land use impact, this impact would be reduced in severity compared to the project because the sanctuary would be reduced in size and all parking would be provided on-site (thus reducing competition for public parking), and commercial and residential space would be provided in accordance with the planning objectives of the Town Center Specific Plan. Because the alternative may require three smaller worship services to be held on Sundays (as opposed to two larger services), activity levels during the Sunday peak period would even out somewhat, which could benefit downtown businesses that are open on Sundays.

b. Transportation, Circulation, and Parking. The trip generation for the Mixed Use/Church alternative and Policy Consistency alternative is shown in Table V-1. As shown in the table, the Mixed Use/Church alternative would generate approximately 114 weekday AM Peak Hour vehicle trips, 266 weekday PM Peak Hour trips, and 232 Sunday mid-day Peak Hour trips. In comparison, the project would generate 104 weekday AM Peak Hour vehicle trips, 235 weekday PM Peak Hour trips, and 390 Sunday mid-day Peak Hour vehicle trips. The Mixed Use/Church alternative would result in 10 more AM Peak Hour trips, 31 more PM Peak Hour trips, and 158 fewer Sunday mid-day Peak Hour trips compared to the project.

As discussed in Section IV.B, Transportation, Circulation, and Parking, the project would not result in any significant impacts to study area intersections. As shown in Table IV.B-5, the study intersections are forecast to operate at LOS B or better in the Cumulative plus Project scenario during all peak hours that were analyzed. The level of service analysis was prepared using a capacity of 1,720 vehicles per hour per lane (vphpl) for a three-phase traffic signal, or 1,650 vphpl for a four-phase traffic signal. In order to worsen the level of service by one grade (e.g., from LOS B to LOS C), approximately 10 percent of the capacity per lane would need to be added to the critical movements at a study area intersection. This equates to approximately 172 vehicles or 165 vehicles for a three-phase or four-phase traffic signal, respectively. The Mixed Use/Church alternative would generate up to 31 more peak hour trips than the proposed project. Even if all of the trips were added to the critical movements at a study area intersection, it is unlikely that the LOS at the intersection would worsen by more than one grade. As a result, the lowest-performing LOS that would likely be experienced with implementation of the Mixed Use/Church alternative would be LOS C in the Cumulative plus Project condition, which is still considered satisfactory LOS. With the Mixed Use/Church alternative, the study intersections would continue to operate at a satisfactory LOS during all peak hours in the Cumulative plus Project condition. Because the Mixed Use/Church alternative would include all parking on-site, it would avoid Impact TRANS-1 and Impact TRANS-2.

c. Air Quality and Global Climate Change. Compared to the proposed project, the Mixed Use/Church alternative would result in 10 more AM Peak Hour trips, 31 more PM Peak Hour trips, and 158 fewer Sunday mid-day Peak Hour trips compared to the project. These increases in project vehicle trips during the AM and PM peak periods are so minor that, similar to the proposed project, implementation of this alternative would not be expected to result in any significant impacts related to the emission of criteria pollutants. Also similar to the proposed project, the Mixed Use/Church alternative would not be expected to generate odors or result in impacts on sensitive receptors in the site vicinity, or result in an exceedance of the operational thresholds of the established clean air plan. Like the project, construction activities associated with the Mixed Use/Church alternative would generate short-term emissions of pollutants. However, implementation of Mitigation Measure AIR-1 would reduce air pollution from construction activities to a less-than-significant level.

As described in Section IV.D, Global Climate Change, project-related vehicle trips are the primary source of project greenhouse gas emissions. Taking into account the greenhouse gas emissions generated by the slightly increased vehicle trips associated with this alternative (during days other than Sunday) and the slight increase in interior building square footage (compared to the project), the Mixed Use/Church alternative would not be expected to make a significant contribution to global climate change (that is, it would not exceed the BAAQMD threshold of 1,100 metric tons per year of CO₂e).

d. Noise. The Mixed Use/Church alternative would result in 10 more AM Peak Hour trips, 31 more PM Peak Hour trips, and 158 fewer Sunday mid-day Peak Hour trips compared to the project. Therefore, on average, the noise impacts of the alternative would be similar to those that would result from the proposed project. The increases in vehicle trips during the AM and PM peak hours would not be a doubling of those analyzed for the proposed project. Therefore, these increases in vehicle trips would not result in a perceptible increase in traffic noise levels on roadways in the site vicinity over those that were analyzed for the proposed project. Similar to the proposed project, the Mixed Use/Church alternative would generate unacceptable levels of construction-period noise. However, this impact would be reduced to a less-than-significant level with implementation of Mitigation Measure NOISE-1. Likewise, persons within the site would be exposed to unacceptable levels of roadway noise. However, this impact would be reduced to a less-than-significant level with implementation of Mitigation Measure NOISE-2. Like the project, this alternative would not be expected to result in any groundborne noise or vibration impacts on sensitive receptors in the project site vicinity. Operational noise associated with implementation of this alternative would be dominated by parking lot activities and delivery loading and unloading activities. These noise sources are similar to what is currently experienced in the site vicinity and would still be expected to be lower than noise levels from traffic on surrounding roadways.

e. Cultural Resources. The Mixed Use/Church alternative would result in impacts to cultural resources that are identical to those that would result from the proposed project and the Policy Consistency alternative. Please refer to Section IV.F, Cultural Resources, for additional detail.

f. Visual Resources. The Mixed Use/Church alternative would result in impacts to visual resources that are similar to those that would result from the proposed project, although the combined building footprint would be reduced. The alternative would remove the former Pioneer Inn building from the site along with a number of mature trees that would be roughly equivalent to those removed as part of the project. Because the alternative would result in a similar building configuration as the

proposed project, it would allow for the substantial preservation of the very large trees on the site, particularly those near Main Street. The structures developed as part of the alternative would – combined – comprise approximately the same interior square footage as the buildings proposed as part of the project, would be a maximum of two stories in height (similar to the proposed project), and would be unlikely to substantially block scenic views available from streets surrounding the site. Like the proposed project, the alternative would introduce new lighting to the site that could spill over onto adjacent properties.

g. Hydrology and Water Quality. The Mixed Use/Church alternative would result in impacts to hydrology and water quality that would be similar to those associated with the proposed project. Because impervious surface coverage would increase compared to the proposed project, impacts to the stormwater drainage system could be incrementally increased. Please refer to Section IV.H, Hydrology and Water Quality, for additional detail.

D. OFF-SITE ALTERNATIVE

1. Off-Site Alternative

The Off-Site alternative would result in the development of the proposed project on a site located outside the Town Center. For the purpose of this analysis, the alternative would be developed on an approximately 5.2-acre site located at the intersection of Marsh Creek Road and Pine Lane, approximately 1.7 miles southeast of the project site (the site is informally known as the Sorensen Property). Figure V-3 shows the location of the Off-Site alternative. The site, which is located outside the City in unincorporated Contra Costa County, is currently undeveloped and contains land that appears to have recently been disked. The site contains one large oak tree and a small dilapidated structure that appears to have been used for agriculture or storage. The site is surrounded by rural residential uses on all sides, and contains expansive views of surrounding hillsides. The site represents one of the few developable sites in close proximity to downtown Clayton that could be feasibly used for development of the proposed project.

The site is designated Single Family Residential – Very Low Density in the Contra Costa County General Plan and General Agriculture (A-2) in the County Zoning Ordinance. Churches are permitted uses in the Single Family Residential – Very Low Density district. However, retail and office uses are not permitted in the district. Therefore, amendments to the County General Plan and Zoning Ordinance would be required. The site is not located within a 100- or 500-year flood zone designated by FEMA. However, Mount Diablo Creek is located approximately 150 feet south of the site.

The off-site alternative would result in approximately the same amount of overall development as the proposed project, although all required parking (approximately 236 spaces) would be provided on-site. Because the site is over twice the size of the proposed project site in the Town Center, it is likely that some of the proposed buildings would be built as single-story instead of two-story structures. Regardless, the large site would allow for the preservation of approximately two-thirds of the site as open space.

The off-site alternative would achieve the following project objective:

- More effectively provide social services to the community, including youth and seniors.

However, the alternative would not achieve the following objectives:

- Bring additional patrons into downtown Clayton to support existing commercial businesses in downtown Clayton, and attract economic investment.
- Extend the Main Street commercial corridor through the development of new structures containing retail space adjacent to Main Street and careful site planning.
- Enhance the walkability of downtown Clayton.
- Build a sustainable project that efficiently uses energy and water, preserves open space and important vegetation, and contributes to the vitality of Clayton.

The following objective would be only partially achieved, since the Off-Site alternative is located just outside the City boundaries:

- Develop new church space in Clayton to serve the local community and fulfill a public need for spiritual and social gatherings.

2. Analysis of the Off-Site Alternative

The Off-Site alternative is evaluated for each environmental topic listed below.

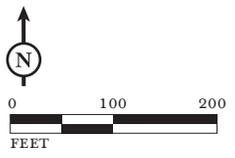
a. Land Use and Planning Policy. The Off-Site alternative, overall, would result in different impacts to land use and planning policy compared to the proposed project. While the development of a church would be permitted under the site's existing Single Family Residential – Very Low Density General Plan district, development of retail and office uses would not be permitted. Such a mixed use development would also be inconsistent with the site's General Agriculture (A-2) zone. While the alternative would avoid the introduction of religious assembly uses to the Town Center (and would avoid the need for amendments to the City of Clayton General Plan, Zoning Ordinance, and Town Center Specific Plan), it would introduce urban uses to a predominantly agricultural parcel. This change in land use would trigger concerns and significant impacts related to urban sprawl and the cumulative loss of agricultural land in the County. In addition, more intense uses may not be compatible with surrounding open space and agricultural land uses. Similar to the proposed project, the alternative would not disrupt or divide an established community because it would not introduce a physical barrier to the area (or obstruct surrounding access routes).

b. Transportation, Circulation, and Parking. The Off-Site alternative site would be located southeast of the study intersections evaluated in the transportation analysis for the proposed project. It is likely that, with implementation of the alternative, the study intersections on Clayton Road, especially at Marsh Creek Road and Center Street, would experience more through movements in the eastbound and westbound direction than under the proposed project. This would slightly increase the volume-to-capacity ratios for through movements at intersections on Clayton Road, especially east of Marsh Creek Road. However, review of the LOS worksheets for the Cumulative plus Project scenario indicates that an increase in the through volumes on Clayton Road resulting from implementation of the Off-Site alternative would not be large enough to cause the intersections to operate at an unsatisfactory LOS. The alternative would avoid Impact TRANS-1 and Impact TRANS-2 because all required parking would be provided on-site and the alternative would not create competition for parking in the Town Center.



LSA

FIGURE V-3



ALTERNATIVE PROJECT SITE

Clayton Community Church Project EIR
Off-Site Alternative

SOURCES: GOOGLE EARTH, 10/02/09; LSA ASSOCIATES, INC., 2010.

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c. Air Quality and Global Climate Change. The Off-Site alternative would be expected to result in a similar number of vehicle trips as those analyzed for the proposed project (because the alternative includes the same type and configuration of land uses). Therefore, similar to the proposed project, this alternative would not result in any significant impacts related to criteria pollutants. Also similar to the proposed project, this alternative would not be expected to generate odors or result in impacts to sensitive receptors around the site, or result in an exceedance of the operational thresholds of the established clean air plan. Like the project, construction activities associated with the Off-Site alternative would generate short-term emissions of pollutants. However, implementation of Mitigation Measure AIR-1 would reduce air pollution from construction activities to a less-than-significant level.

As described in Section IV.D, Global Climate Change, project-related vehicle trips are the primary source of project greenhouse gas emissions. Therefore, the Off-Site alternative would not be expected to make a significant contribution to global climate change, similar to the proposed project (that is, it would not exceed the BAAQMD threshold of 1,100 metric tons per year of CO₂e).

d. Noise. Similar to the proposed project, the Off-Site alternative would generate unacceptable levels of construction-period noise. However, this impact would be reduced to a less-than-significant level with implementation of Mitigation Measure NOISE-1. Also similar to the proposed project, this alternative would not be expected to result in any groundborne noise or vibration impacts on sensitive receptors in the site vicinity. Operational noise associated with implementation of this alternative would be dominated by parking lot activities and delivery loading and unloading activities and would be expected to be lower than noise levels from traffic on surrounding roadways. Therefore, operational noise impacts associated with implementation of this alternative would be expected to be less than significant. The Off-Site alternative would be expected to result in a similar number of vehicle trips as the proposed project. Depending on the proposed access to this alternative site, vehicle trips generated by the alternative could result in a significant increase in traffic noise levels along Pine Lane adjacent to the project site. In addition, depending on the distance of proposed church uses from Marsh Creek Road, these uses could be exposed to unacceptable noise levels due to vehicle traffic. Therefore, implementation of Mitigation Measure NOISE-2 (Off-Site alternative) would be required to reduce traffic noise impacts to a less-than significant level.

Mitigation Measure NOISE-2 (Off-Site alternative): The project sponsor shall implement the following measures prior to the issuance of occupancy permits:

- All buildings of the proposed project shall include an alternative form of ventilation, such as air conditioning systems, to ensure that windows can remain closed for prolonged periods of time to meet the interior noise standard of 45 dBA L_{dn} established by the City.
- The project applicant shall ensure that the following roadway segment shall be re-surfaced with Rubberized Hot Mix Asphalt - Open Graded (RHMA-O) or a similar type of quiet pavement: Pine Lane from Marsh Creek Road extending to proposed entrances to the site along Pine Lane. This measure shall be completed prior to the issuance of the occupation permits for the project. (LTS)

e. Cultural Resources. The Off-Site alternative would result in the demolition of an existing building that appears to have been used for agricultural activities in the past. It is unknown whether this structure or any associated remains would be considered a historic resource (for instance, the structure could be associated with persons historically important in the area's settlement and develop-

ment). Therefore, demolition of the structure and disturbance of associated remains on the site would be a potential adverse cultural resources impact. In addition, because the site is located at the foot of Mount Diablo in close proximity to Mount Diablo Creek, it has the potential to contain Native American archaeological resources. Impacts to such resources (if they exist on the site) would also be considered potentially significant. However, the off-site alternative would avoid potentially significant impacts to archaeological deposit CA-CCO-222 that could result from implementation of the proposed project.

f. Visual Resources. The Off-Site alternative is located in a scenic area at the foot of Mount Diablo and is characterized by a backdrop of undeveloped hillsides and the Mount Diablo Creek riparian zone to the south. The old farm building and large oak tree on the site also contribute to the site's visual character and scenic quality. Development of a church and commercial space on the site would substantially adversely affect this character, and could block scenic views of Mount Diablo that are currently available from Marsh Creek Road. With careful site design, the large oak tree in the interior of the site and old agricultural building could be avoided, but development of the site would adversely affect the character of the site and associated views. This impact would likely be significant and unavoidable due to the scenic rural character of the site and its surroundings.

g. Hydrology and Water Quality. Like the project, the Off-Site alternative would result in new impervious surfaces on the site. On the alternative site, this new storm water would likely flow to Mount Diablo Creek, and could adversely affect the water quality of the creek if not managed properly. In addition, runoff associated with construction activities would generate a new source of polluted runoff. The site is not located within a 100- or 500-year flood zone designated by FEMA. Therefore, the alternative would not place structure in a flood zone or otherwise change drainage patterns in a flood zone.

h. Other Environmental Resources. The Off-Site alternative would also affect other resources besides those addressed for the proposed project, as follows:

- *Agriculture Resources.* The alternative would result in the development of land zoned for agricultural use (A-2), and would reduce the supply of farmland available in the region. This would be considered a significant unavoidable impact.
- *Biological Resources.* While, to the knowledge of the report preparers, the site has not been surveyed for biological resources, due to its agricultural nature, it may provide habitat for protected animal species such as burrowing owl (*Athene cunicularia*) and could provide foraging habitat for raptors such as northern harrier (*Circus cyaneus*). Because the site appears to have been recently disked, it would not be likely to contain protected plant species. In addition, the existing structure on the site could contain nesting habitat for owls (and this habitat could be disrupted by the Off-Site alternative).

D. OTHER ALTERNATIVES CONSIDERED

A substantially reduced density alternative was rejected from detailed analysis in the EIR because the site is an appropriate place for a moderately-dense project, due to its location within the commercial hub of Clayton. A key objective of the Town Center Specific Plan is the introduction of a high level of pedestrian activity to the Town Center. A lower-density development on project site would work counter to this objective. Therefore, this alternatives analysis considers a reasonable range of alterna-

tive densities on the site (including the Mixed Use/Church alternative, which would contain a smaller sanctuary than that proposed as part of the project). In addition, an on-site parking alternative (i.e., an alternative including development of the structures proposed as part of the project, with all required parking provided on-site) was rejected as infeasible and undesirable by the City due to the site planning difficulties involved in accommodating such a large parking lot (or parking structure) on the site.

E. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that the EIR identify the environmentally superior alternative. The No Project alternative would eliminate many of the significant impacts associated with the proposed project, in that it would not result in ground-disturbing activities, new construction, or the development of new uses in the site (and the generation of associated new vehicle trips). Therefore, the No Project alternative would avoid several impacts that could result from the proposed project, including: generation of polluted storm water runoff during the construction period; construction-period air pollutant and noise emissions; and disturbance of archaeological resources during ground disturbance. In addition, the No Project alternative would avoid the impacts associated with land use and planning policy, parking, and light and glare, and would not require the amendments to planning documents that would be required as part of the project. While the No Project alternative would be the environmentally superior alternative in the context of impact reduction, it would not meet the primary objectives of the project.

CEQA Guidelines section 15126(e)(2) requires that an additional alternative be designated as the environmentally superior alternative, if the No Project alternative is identified as the environmentally superior alternative. The Policy Consistency alternative would be the next-best environmentally superior alternative. Although it would be more dense than the proposed project, this density is appropriate for a landmark site in Clayton's commercial center. The alternative would also require fewer amendments to the General Plan, Zoning Ordinance, and Town Center Specific Plan compared to the proposed project (although the portion of the site zoned limited commercial would likely be rezoned to Planned Development, the text of the Town Center Specific Plan would be amended to remove the former Pioneer Inn from the list of historic resources, and Figures 4-3 (Illustrative Site Plan) and 4-15 (The New City Hall Site) would be amended to reflect the uses proposed and part of the alternative, and building configuration of the alternative). The alternative would not introduce religious assembly uses to the Town Center and thus would not result in a significant land use impact.

Compared to the proposed project, the Policy Consistency alternative would result in 24 fewer AM Peak Hour vehicle trips, 46 fewer PM peak hour trips, and 253 fewer Sunday mid-day peak hour trips. While this reduction in trips would not avoid any of the significant impacts associated with the project, it would incrementally reduce the project's contribution to local traffic, noise, and regional air pollution. Because all parking would be provided on-site, the alternative would avoid Impacts TRANS-1 and TRANS-2.

It should be noted that the Policy Consistency alternative would not achieve the following project objectives:

- Develop new church space in Clayton to serve the local community and fulfill a public need for spiritual and social gatherings.
- More effectively provide social services to the community, including youth and seniors.

However, four other objectives would be achieved:

- Bring additional patrons into downtown Clayton to support existing commercial businesses in downtown Clayton, and attract economic investment.
- Extend the Main Street commercial corridor through the development of new structures containing retail space adjacent to Main Street and careful site planning.
- Enhance the walkability of downtown Clayton.
- Build a sustainable project that efficiently uses energy and water, preserves open space and important vegetation, and contributes to the vitality of Clayton.

Looking strictly at environmental impacts, the Policy Consistency alternative would be superior to the proposed project. However, it would less completely achieve the project's objectives.

The Mixed Use/Church alternative would be the third-most environmentally superior alternative, but would completely achieve the objectives of the project. Although the alternative would introduce religious assembly uses to downtown Clayton that are not currently permitted in the Town Center Specific Plan, and the introduction of these uses would represent a significant land use impact, this impact would be reduced in severity compared to the project because the proposed sanctuary would be reduced in size and all parking would be provided on-site (thus reducing competition for public parking). In addition, commercial and residential space would be provided in accordance with the planning objectives of the Town Center Specific Plan. Because all parking would be provided on-site, Impacts TRANS-1 and TRANS-2 would be avoided. In addition, the structures that would be built as part of the alternative would comprise a smaller footprint than those that would be constructed as part of the proposed project.

VI. CEQA-REQUIRED ASSESSMENT CONCLUSIONS

As required by CEQA, this chapter discusses the following types of impacts that could result from implementation of the proposed project: growth-inducing impacts; significant irreversible changes; cumulative impacts; effects found not to be significant; and unavoidable significant effects.

A. GROWTH INDUCEMENT

A project is considered growth-inducing if it would directly or indirectly foster substantial economic or population growth or the construction of additional housing.¹ Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are only sparsely developed or are undeveloped. Typically, redevelopment projects on infill sites that are surrounded by existing urban uses are not considered growth-inducing because redevelopment by itself usually does not facilitate undesirable development intensification on nearby or adjacent sites. To the extent that such redevelopment has an effect on nearby or adjacent sites, growth-inducement is often a desirable outcome.

Implementation of the proposed project would not result in direct population growth because it does not include the construction of housing units. The economic stimulus generated by construction of the proposed project could result in the creation of new construction-related jobs, although due to the current severe downturn in the construction industry it is likely that construction jobs would be quickly and easily filled by under- or unemployed construction workers. In addition, the proposed 7,957 square feet of retail space could generate a small number of new jobs (associated with new businesses that occupy the space). The church is not expected to generate a substantial amount of new employment beyond existing conditions. The jobs created during both the construction and operation phases of the project would not be substantial in the context of job growth in Clayton and the region in the next 10 years. Although some of the employees generated by the proposed project may decide to live in Clayton, the migration of these employees into the City would not result in a substantial population increase.

In addition, the proposed project would occur on an infill site in the Town Center, which is itself located in an urbanized area. It would not result in the extension of utilities or roads into undeveloped areas, and would not directly or indirectly lead to the development of greenfield sites in eastern Contra Costa County. Therefore, growth associated with the project would not be considered substantial or adverse.

¹ *CEQA Guidelines*, 2010. Section 15126.2(d).

B. SIGNIFICANT IRREVERSIBLE CHANGES

An EIR must identify any significant irreversible environmental changes that could result from implementation of a proposed project. These may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. CEQA dictates that irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.² The *CEQA Guidelines* describe three distinct categories of significant irreversible changes: 1) changes in land use that would commit future generations; 2) irreversible changes from environmental actions; and 3) consumption of non-renewable resources.

1. Changes In Land Use Which Would Commit Future Generations

The proposed project would allow for the redevelopment of approximately 2.3 acres of land within the Clayton Town Center. Development of the project would require amendments to the General Plan, Zoning Ordinance, and Town Center Specific Plan to allow religious assembly uses on the site. As discussed in Section IV.A, Land Use and Planning Policy, the expansion of religious uses into areas designated “Town Center Commercial” would conflict with the policy impetus of the General Plan, the Zoning Ordinance, and the Town Center Specific Plan, which seeks to ensure that the Town Center will be predominantly commercial in nature. Only approximately 19 percent of the total interior space developed as part of the project would be designated for retail uses (the remaining 81 percent of uses would be sanctuary and community uses, along with accessory administrative/office uses). In addition, the proposed project would not contribute to the establishment of the Town Center as an active retail center to the extent of a purely commercial project, and (according to a draft fiscal and economic study prepared by BAE) could hinder future development of retail uses by nature of the location of the project on Main Street and the disproportionate use of public parking.³

Although the proposed project could benefit the Town Center by generating additional visitors and pedestrian traffic, introducing more “eyes on the street” to discourage crime and other undesirable behavior, and adding street-level retail space to Main Street, these beneficial effects would need to be weighed against Impact LU-1, associated with the permanent introduction of religious assembly uses to the Town Center, which is intended to be primarily commercial in nature. As discussed in Section IV.A, Land Use and Planning Policy, City records indicate that the City has made a conscious effort to prohibit religious assembly uses in the downtown area due to concern for the future viability of the Town Center as a primarily commercial area. The Town Center Specific Plan was amended in 2008 to prohibit the development of assembly uses (including religious assembly uses) in the area. Prior to that, in May 2007, City staff recommended against approval of a Use Permit to allow assembly worship services on a temporary basis on Saturday evenings from June 23 to September 1, 2007 at Clayton Community Church’s existing one-story building. Therefore, in light of past City policy decisions, the proposed project would commit the City and future generations to a change in land use that would conflict with the policy impetus of the General Plan, Zoning Ordinance, and Town Center Specific Plan.

² *CEQA Guidelines*, 2010. Section 15126.2(c).

³ Bay Area Economics, 2011. *Draft Economic/Fiscal Evaluation of the Clayton Community Church Development Proposal*. March 28.

2. Irreversible Changes From Environmental Accidents

No significant irreversible environmental damage, such as what could occur as a result of an accidental spill or explosion of hazardous materials, is anticipated due to implementation of the proposed project. Construction of the project would result in the use of commercially-available hazardous materials, such as gas, oil, paints, and solvents. Compliance with federal, State and local regulations, in addition to the construction-period management practices described in Mitigation Measure HYD-2, would reduce to a less-than-significant level the possibility that the use of hazardous substances within the project site would cause significant environmental damage. Operation of the church and commercial uses on the site would not be expected to result in the substantial use of hazardous materials. Therefore, operation of the project would not be expected to pose the threat of an environmental accident.

3. Consumption of Nonrenewable Resources

Consumption of nonrenewable resources includes conversion of agricultural lands, loss of access to mining reserves, and use of non-renewable energy sources. The project site is located within an urbanized neighborhood adjacent to downtown Clayton and is characterized as urban and built-up land by the California Department of Conservation. Therefore, no agricultural lands would be converted to non-agricultural uses. In addition, the project site does not contain known mineral resources and does not serve as a mining reserve; thus, implementation of the proposed project would not result in the loss of access to mining reserves.

Construction of the proposed project would require the use of energy, including energy produced from non-renewable resources. Energy consumption would also occur during the operational period of the proposed project due to the use of automobiles and appliances, and for heating and cooling. Therefore, new structures would substantially increase consumption of nonrenewable fuel sources. However, the project would be designed to encourage pedestrian activity, and includes several green features, including the use of drought-resistant landscaping, the preservation of 31 of the 48 existing mature trees on the site, and the preservation of approximately 55 percent of the site as open space. In addition, the project is centrally-located; because it is community-serving, it has the potential to reduce travel distances if and when the congregation of Clayton Community Church grows. The project would also be required to comply with Title 24 energy efficiency standards. Therefore, the proposed project would not result in a significant increase in the consumption of nonrenewable resources.

C. CUMULATIVE IMPACTS

CEQA defines cumulative impacts as “two or more individual effects, which, when considered together, are considerable, or which can compound or increase other environmental impacts.” Section 15130 of the *CEQA Guidelines* requires that an EIR evaluate potential environmental impacts that are individually limited but cumulatively considerable. These impacts can result from the proposed project alone, or together with other projects. The *CEQA Guidelines* state: “The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable

future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”⁴

1. Methodology

When evaluating cumulative impacts, CEQA envisions the use of either a list of past, present, and probable future projects, including projects outside the control of the lead agency, or a summary of projections in an adopted planning document, or some reasonable combination of the two approaches. This cumulative analysis uses a list of foreseeable projects in Clayton (listed below), in addition to a long-term projection of future development in downtown Clayton developed by BAE:⁵

- Creekside Terrace at the northwest corner of Oak Street/High Street (7,200 square feet of retail space and 7 single-family homes);
- Silver Oak Estates on the south side of Center Street–Oakhurst Drive–Concord Boulevard (9 single-family homes and 55 multifamily units);
- Diablo Pointe at the southeast corner of Regency Drive/Rialto Drive (24 single-family homes); and
- Oak Creek Canyon north of Diablo Parkway/Marsh Creek Road (5 single-family homes).

2. Cumulative Effects of the Proposed Project

The following analysis examines the cumulative effects of the proposed project. The potential cumulative effects of the proposed project are summarized below for each of the topics that are analyzed in Chapter IV of the EIR.

a. Land Use and Planning Policy. In terms of cumulative impacts, land use compatibility can be discussed in terms of short-term and long-term impacts. Short-term impacts occur during construction and primarily affect sensitive land uses, including schools and residential uses. These impacts include the noise and dust generated by demolition, grading, and excavation activities and the use of heavy machinery. These specific impacts are discussed in Section IV.C, Air Quality, and Section IV.E, Noise. With implementation of identified mitigation measures, the project would not result in short-term adverse land use impacts. Cumulative projects would also be subject to similar mitigation measures and so would also be expected to result in less-than-significant construction-period impacts.

Planned projects in Clayton include smaller-scale residential and commercial projects. Due to the scale of these projects, and the types of associated land uses, they would not be expected to divide an established community. In addition, the commercial and residential land uses that would be developed as part of these projects would be generally compatible with surrounding uses. However, as discussed in Section IV.A, Land Use and Planning Policy, the expansion of religious assembly uses in the Town Center would conflict with the policy impetus of the General Plan, Zoning Ordinance, and the Town Center Specific Plan, which seek to ensure that the Town Center will be predominantly commercial in nature. According to a draft fiscal and economic study prepared by BAE, religious assembly uses in the Town Center could adversely affect the future development of the Town Center as a primarily commercial district. Because the proposed project would allow for other religious assembly uses to

⁴ *CEQA Guidelines*, 2010. Section 15355.

⁵ Bay Area Economics, 2011. *Draft Economic/Fiscal Evaluation of the Clayton Community Church Development Proposal*. March 28.

locate in the Town Center in the future, this effect could be exacerbated in the longer-term cumulative condition (although it should be noted that the City knows of no additional proposals for religious assembly uses in the Town Center). Therefore, the project, by introducing a major non-commercial use into downtown Clayton, could result in a substantial adverse cumulative effect on the future development of downtown. This impact would be mitigated to a less-than-significant level through implementation of Mitigation Measure LU-1.

b. Transportation, Circulation and Parking. Please refer to Section IV.B, Transportation, Circulation, and Parking, for a detailed description of the cumulative transportation-related impacts of the proposed project. All study area intersections would operate at satisfactory levels of service under cumulative conditions, both with and without the addition of traffic generated by the project. Like the project, the cumulative projects would also not be expected to result in changes to air traffic patterns, conflict with forms of alternative transportation, and result in substantial adverse changes to the local circulation system or emergency response plans. However, the proposed project would result in a shortage of parking in downtown Clayton when the parking demand associated with existing and foreseeable development is taken into account. This shortage of parking could adversely affect the future development of downtown Clayton as a commercial center and would be considered a significant adverse cumulative impact. This impact would be mitigated to a less-than-significant level through implementation of Mitigation Measure TRANS-1.

c. Air Quality and Global Climate Change. The proposed cumulative projects would contribute to local carbon monoxide concentrations and regional pollutant levels. However, these contributions would be expected to be less than significant, similar to those pollutants generated by the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction may result in substantial short-term increases in air pollutants. However, each individual project would be subject to the BAAQMD rules and regulations, and other mitigation requirements designed to reduce construction period pollutant emissions (such as Mitigation Measure AIR-1 identified in Section IV.C, Air Quality). The BAAQMD has established thresholds of significance for ozone precursors and fugitive dust of 54 pounds per day. The operational emissions that would be generated by the proposed project would not exceed these thresholds of significance for reactive organic gases, nitrogen oxides, or particulate matter and would not make a cumulatively considerable contribution to these pollutants (or conflict with the current Clean Air Plan).

Climate change is a global environmental problem in which any given development project contributes only a small portion of any net increase in global greenhouse gases. Therefore, climate change is strictly a cumulative impact. Greenhouse gas emissions would be generated by the proposed project in the short- and long-term, but these emissions would not exceed the BAAQMD threshold of 1,100 metric tons per year of CO₂e and therefore would not be considered a significant cumulative contribution to global climate change.

d. Noise. Implementation of the proposed project and cumulative projects would result in noise increases in the City of Clayton due to construction-period activity and increased traffic on City streets. Noise increases associated with construction of the proposed project would be reduced to a less-than-significant level through implementation of Mitigation Measure NOISE-1, which would restrict construction activities to daytime hours and implement appropriate muffling devices on machinery. Cumulative projects in Clayton would be subject to similar noise-control measures during

their construction periods. The proposed project would not make a cumulatively considerable contribution to noise levels on local streets in the vicinity of the project site. Under cumulative conditions, traffic on Clayton Road would result in unacceptable noise levels in interior spaces within the project site. However, implementation of Mitigation Measure NOISE-2 would reduce this cumulative impact to a less-than-significant level.

e. Hydrology and Water Quality. Construction of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, could increase storm water volume and the amount of contaminants carried in runoff. This stormwater could adversely affect waterways to which the project site drains, including Mitchell Creek, Mount Diablo Creek, and Suisun Bay. Project-specific mitigation measures (similar to Mitigation Measures HYD-1 through HYD-3) would be required for each development project to ensure that increased storm water runoff (during the construction and operation periods) would not exceed the capacity of the stormwater system or introduce substantial amounts of water pollution to downstream water bodies. These measures would include the incorporation into development projects of appropriate water detention systems, and the provision of Best Management Practices (BMPs) on development sites to ensure that runoff of contaminated water is reduced and treated on-site.

In addition, as part of the project, site elevations would be raised to remove buildings from the 100-year flood hazard area, although such changes to the site would not result in substantial adverse flooding-related impacts because the regulatory floodway adjacent to Mitchell Creek at the western end of the site would be preserved. Because the project would preserve the regulatory floodway entirely, the potential for the project to adversely affect the floodplain storage volume, which could cause increases in peak discharge rates and water surface elevations (which could in turn impede or redirect flood flows) would be less than significant. Development of areas within regulatory floodways would also not be expected as part of development of the cumulative projects. No significant unavoidable impacts related to hydrology and water quality would result from the proposed project, and the project would not considerably contribute to any cumulative hydrology and water quality impacts.

f. Cultural Resources. Construction activities associated with the proposed project could result in significant impacts to unidentified archaeological and paleontological resources, and human remains (including archaeological resource CA-CCO-222). However, the proposed project would be subject to measures that protect archaeological and paleontological resources. Other foreseeable projects in the City would be subject to similar measures. Therefore, the proposed project, in conjunction with the cumulative projects, would not result in a significant cumulative impact to archaeological and paleontological resources. The proposed project would result in the demolition of the former Pioneer Inn building (which is listed as a historic resource in the Town Center Specific Plan). However, this structure is not eligible for the California Register and is not otherwise considered a historic resource pursuant to CEQA. Therefore, the project would not substantially contribute to the cumulative loss of historic resources in Clayton and surrounding areas.

g. Visual Resources. The proposed project would not substantially alter scenic vistas within the vicinity of the project site, including views of the undeveloped hillsides surrounding Clayton. Therefore, the proposed project would not make a significant cumulative contribution to the obstruction of scenic views in Clayton. The project would change the visual character of the project site by demolishing the former Pioneer Inn building, removing mature trees, and developing a church, accessory

uses, and retail uses on the site. However, the appearance of new development on the site would be in general keeping with the aesthetic guidance of the General Plan and Town Center Specific Plan. The proposed buildings on the site would be designed and configured in a way that references historic development in downtown Clayton. In addition, large and conspicuous mature trees near Main Street would be preserved as part of the project. Therefore, the project would not make a substantial adverse contribution to the cumulative loss of visual resources. However, the proposed project and cumulative projects could increase light and glare in the area. Such light and glare would be reduced to a less-than-significant level with implementation of Mitigation Measure VIS-1 and similar measures, which require lighting to be designed so that it is downward-facing and does not result in substantial glare.

D. EFFECTS FOUND NOT TO BE SIGNIFICANT

Based on correspondence with City staff, visits to the project site, and preliminary research, the proposed project is not expected to result in significant impacts related to the following topics, which are not further evaluated in the EIR.

1. Agriculture and Forestry Resources

The 2.3-acre project site has not been used for grazing or farming in recent years, and is currently located within downtown Clayton, a neighborhood that by nature of development intensities and soil conditions is unsuitable for farming. In addition, the project site is not zoned for agricultural uses and is not under a Williamson Act contract (designed to maintain productive farmland). The Contra Costa County Important Farmland Map (2008), prepared by the State Department of Conservation, indicates that the site is classified as “Urban and Built-Up Land.”⁶ Urban and Built-up Land is defined as land “occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, golf courses, sanitary landfills, sewage treatment, and waste control structures.” Therefore, implementation of the proposed project would not convert agricultural land to non-agricultural uses.

In addition, although the project site contains 48 mature trees (including 15 native oak trees), the site would not be considered “forest land” as defined by California Public Resources Code, Section 12220(g). No timber-related production occurs within the project site, and no areas of the site are considered “timberland” as defined by California Public Resources Code, Section 4526. Similarly, no Timberland Protection zoning occurs on the site as defined by California Government Code, Section 51104(g).

2. Biological Resources

The project site has been developed with a structure located on the site of the former Pioneer Inn building since 1857 and has low wildlife habitat value. Wildlife and botanical resources present within the project site are adapted to disturbed, urban conditions and would not be adversely affected by implementation of the proposed project. No State or federally protected plant or animal species are known to occur within the project site, and no suitable habitat for such species occurs on the site. In addition, no wetlands occur within the site. Mitchell Creek is located to the west of the site. Construc-

⁶ California Department of Conservation, 2008. Contra Costa County Important Farmland Map. Website: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/con08.pdf>.

tion and operational activities on the site could increase the quantity and reduce the quality of storm-water flowing into the creek. However, implementation of Mitigation Measure HYD-1 through HYD-3 would reduce associated impacts to riparian resources to a less-than-significant level.

Implementation of the proposed project would result in the removal of 17 of the 48 mature trees on the site. A reconnaissance of the project site identified no conspicuous nests of the type that would be known to be used by raptors. However, even if raptors use these trees, a sufficient number of trees would continue to remain on the site and immediate surroundings that would offer perches and potential nest sites for raptors. Therefore, tree removal on the site would not adversely affect local populations of raptors (or other bird species).

The City of Clayton is part of the East Contra Costa Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). However, the proposed project would not fall under the jurisdiction of HCP/NCCP requirements because it would not result in the “take” of a protected plant or animal species.

3. Geology, Soils and Seismicity

The following discussion is based on the Geotechnical Investigation proposed for the project site by Cornerstone Earth Group in 2009.⁷ The Geotechnical Investigation was based on a field reconnaissance, eight soil borings, and an analysis of soil samples (including for moisture content and plasticity). The project site is located at elevation 385 to 390 feet and is generally flat. The site is covered with approximately 2 to 4 feet of undocumented fill consisting of loose to medium dense silty sand and stiff to hard lean clay with varying amounts of sand and gravel. Below the fill are native alluvial (i.e., stream-deposited) soils that consist of medium dense to dense clayey gravel, poorly-graded gravel with sand, and clayey sand interbedded with layers of stiff to very stiff clay down to a depth of at least 40 feet. Following is a summary of geotechnical concerns on the site:

- *Ground-shaking and Fault Rupture.* The site is located in a region of northern California that is seismically active. There are three active faults within 10 miles of the site: Greenville Fault (1.1 miles from the site); Concord-Green Valley Fault (3.6 miles); and Calaveras-North Fault (7.7 miles). The U.S. Geological Survey Working Group on California Earthquakes estimates that there is a 63 percent chance of at least one magnitude 6.7 or greater earthquake occurring in the Bay Area between 2007 and 2036. Therefore, ground-shaking due to earthquakes is likely on the project site. However, no faults or known fault traces are located within the site. Therefore, the project would not be subject to fault rupture.
- *Liquefaction.* Liquefaction refers to the process by which soil layers become saturated and lose stability. The project site is within a zone mapped as having a moderate liquefaction potential by the Association of Bay Area Governments (ABAG). The Geotechnical Investigation included an additional analysis of site soils to better ascertain the liquefaction potential of the site. Based on this analysis, it was determined that the medium dense sand and gravel layers underlying the site could experience liquefaction that could result in soil softening and settlement.
- *Ground Rupture.* For ground rupture to occur, the water pressure within the liquefiable water layer would need to be high enough to break through the overlying non-liquefiable layer. The 10-

⁷ Cornerstone Earth Group, 2009. Geotechnical Investigation, Clayton Community Church. December 4.

to 12-foot non-liquefiable “cap” within the project site would be sufficient to prevent ground rupture.

- *Lateral Spreading.* Lateral spreading is the horizontal ground movement of relatively flat-lying soil deposits towards an open body of water, channel, or excavation, and is usually associated with liquefaction. The most significant concern on the site in regard to the potential for lateral spreading would be the movement of soil towards the Mitchell Creek channel. However, the potential for lateral spreading on the site would be low due to the distance of Mitchell Creek from the site (10 to 20 feet) and the location of the creek within a box culvert adjacent to the western boundary of the site.
- *Settlement.* Loose, unsaturated and sandy soils can settle during strong seismic shaking. However, because the soils underlying the site are predominantly stiff to very stiff clays and medium dense to dense sands and gravels, the potential for settlement on the site is low. However, approximately 0.5 to 1 inch of liquefaction-induced settlement could occur on the site.
- *Expansive Soils.* Moderately expansive surface soils are located on the site. The volume of these soils could change with fluctuations in moisture context, resulting in damage to building foundations.
- *Shallow Groundwater.* Groundwater was measured at approximately 10 to 13 feet below the surface of the site, and could occur closer to the surface due to rainwater infiltration or inflow from Mitchell Creek. Such shallow groundwater can adversely affect pavements, underground utilities, and overall soil stability.
- *Landslides and Septic Systems.* The project site is located in a flat area. No steep slopes are located nearby that would subject the site to the risk of landslides. In addition, no septic systems are proposed as part of the project (all wastewater would be treated off-site).
- *Erosion.* Please refer to Section IV.H, Hydrology and Water Quality, for a discussion of the potential for the project to result in erosion.

The geology-related concerns summarized above would not be significant with implementation of the site preparation and engineering recommendations listed in the Geotechnical Investigation. Implementation of these measures would be required by the City prior to the issuance of a grading or building permit for the site. The recommendations that relate to avoiding significant geology-related impacts are summarized below:

- All existing vegetation, foundations, and paved surfaces shall be removed from planned building areas.
- All undocumented fills shall be removed to at least 5 feet beyond the footprint of each building. In addition, the 2-foot layer of loose, silty sand shall be subject to additional investigation and removed or modified if needed.
- Temporary shoring and bracing, and cuts and fills, shall be performed in accordance with the most stringent government safety standards.
- Areas designated for additional fill material, slabs-on-grade and/or pavements shall be scarified to a depth of 12 inches, moisture-conditioned, and compacted.
- Unstable soils shall be dried, removed and replaced, or chemically-treated.

- Fill shall only be re-used in compliance with the guidelines described in the Geotechnical Investigation.
- All fills and certain sub-grade areas shall be appropriately compacted.

The measures listed above are considered feasible, would be required by the City as a condition of project approval, and would not be expected to result in substantial secondary environmental effects by nature of their location or level of ground disturbance.

4. Hazards and Hazardous Materials

Construction activities associated with the proposed project would increase the potential for the exposure of persons to hazardous materials, including contaminated soil and groundwater, hazardous construction materials, and residual lead and asbestos in structures. However, the remediation of existing hazardous materials is highly regulated by local, State, and federal laws. Compliance with these regulations would reduce hazards-related impacts associated with the project to a less-than-significant level. Based on the Geotechnical Investigation prepared for the site, the undocumented fill is anticipated to be appropriate for re-use and is not expected to contain hazardous materials. Implementation of Mitigation Measure HYD-2 would reduce the potential for release of hazardous materials during the project construction phase to a less-than-significant level.

5. Mineral Resources

No known mineral resources are located within or near the project site. Mineral resource extraction activities have not taken place within or in the immediate vicinity of the project site during recent history (although coal mines were historically located in the vicinity of Clayton).

6. Population and Housing

The project does not include the construction of new housing. Therefore, the project would not directly increase the population of Clayton or the surrounding region. No housing is located within the project site. Therefore, implementation of the proposed project would not result in the removal of housing. As discussed under “Growth Inducement,” above, the economic stimulus generated by construction of the proposed project could result in the creation of new construction-related jobs, but these jobs would not be substantial in number. In addition, the proposed 7,957 square feet of retail space could generate a small number of new jobs (associated with new businesses that occupy the space). The church is not expected to generate a substantial amount of new employment beyond existing conditions. The jobs created during both the construction and operation phases of the project would not be substantial in the context of job growth in Clayton and the region in the next 10 years. The City had approximately 1,390 jobs in 2010. In 2020, ABAG expects the total number of jobs in the City will increase by 170 to a total of 1,560 jobs. In 2010, the total number of jobs in Contra Costa County was 376,820. This number is expected to increase by 68,730, to 445,550 jobs by 2020.⁸

7. Public Utilities, Services, and Recreation

Implementation of the proposed project would increase the demand for water, wastewater treatment, landfill space, and public services (including police and fire services). Utility improvements funded

⁸ Association of Bay Area Governments, 2009. *Building Momentum: San Francisco Bay Area Population, Job, and Housing Forecasts*.

by the project sponsor, routine expansion of wastewater treatment facilities, the adoption of waste reduction plans and the installation of recycling bins, and the incorporation into the project of required energy- and water-efficient technologies (all required as part of project conditions of approval) would ensure that the proposed project would not result in impacts on wastewater treatment, energy, and landfill space. No new facilities related to these utilities would be required as a result of the project.

Water service to the site would be provided by the Contra Costa Water District. The project would include new water lines that would connect the site to the existing water main under Main Street. Sewage treatment would be provided by the Central Contra Costa Sanitary District. The project would include new sewage lines that would connect to the existing sewage main under Main Street. Sewage generated on the project site would be treated at the Central Contra Costa Sanitary District's treatment plant. Energy (electricity and gas) would be provided to the site by Pacific Gas and Electric. New utility infrastructure that would be required as part of the project would be typical of development projects elsewhere in Clayton and would not result in adverse environmental effects beyond those already identified in this EIR (e.g., construction-period increase in noise levels and pollutant emissions).

The proposed planting palette includes many California natives and drought-resistant plants, including blue-eyed grass (*Sisyrinchium bellum*), ceanothus (*Ceanothus sp.*), California wild grape (*Vitis californica*), Pacific way myrtle (*Myrica californica*), and California buckeye (*Aesculus californica*). Taking into account the retention of 31 of the existing 48 mature trees on the project site, the project would not be expected to compromise the area's water supply or otherwise result in a wasteful use of water.

As discussed in Section IV.H, Hydrology and Water Quality, it has not yet been determined if additional on-site retention facilities would be required to reduce the impact of 10-year storm flows on the City's drainage system. However, implementation of Mitigation Measure HYD-1 (which requires the project applicant to provide flood detention if necessary for runoff (from up to the 10-year storm) discharging to the underground stormwater drainage system, and to evaluate if storms smaller than the 100-year event that would be conveyed via overland flow (i.e., the 25-year event) would require flood detention) would reduce this impact to a less-than-significant level.

As discussed above, the project would not directly induce population growth and would result in only a modest increase in employment. Proposed uses could marginally increase the demand for emergency fire and police services. However, the net increase in demand is expected to be modest because Clayton Community Church already operates from the project site, and currently holds worship services at Diablo View Middle School (in close proximity to the site). In addition, development of the site could increase informal surveillance of the area, resulting in an incremental reduction in crime downtown. Therefore, it is expected that the proposed project would be adequately served by existing fire and police services, and would not require the construction of new service facilities that would themselves result in significant environmental impacts. According to the draft fiscal and economic study prepared by BAE, "[a]side from traffic control and parking enforcement, the Police Department is not especially concerned with increased law enforcement needs associated with the proposed project and did not have heightened concern regarding law enforcement demands" compared to development of the site with a primarily commercial project. Similarly, the City Maintenance Division expressed a "lack of concern for the church activities to create major new service

demands.”⁹ The project would not increase demand for schools (because proposed uses would not directly result in population growth) and would only marginally increase demand for off-site recreational facilities (since project-related recreational facilities – namely open space areas – would be developed on-site). Development of on-site recreational facilities would not result in environmental impacts beyond those identified elsewhere in this EIR.

E. SIGNIFICANT UNAVOIDABLE IMPACTS

The proposed project would result in no significant unavoidable impacts. In other words, all environmental impacts that would result from the project would be reduced to a less-than-significant level with implementation of the mitigation measures identified in this EIR.

⁹ Bay Area Economics, 2011. *Draft Economic/Fiscal Evaluation of the Clayton Community Church Development Proposal*. March 28.

VII. REPORT PREPARATION

A. REPORT PREPARATION

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