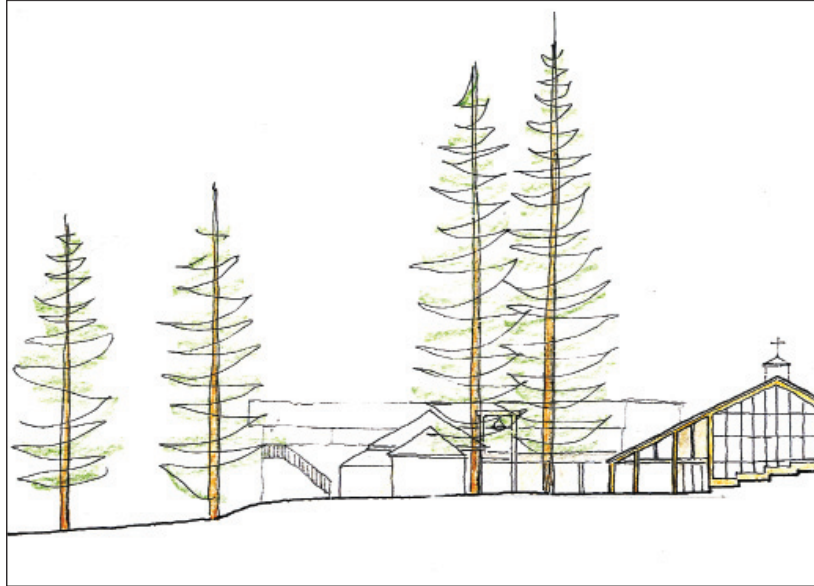


ST. JOHN'S CHURCH PROJECT EIR

STATE CLEARINGHOUSE NUMBER: 2008032031



Prepared for

City of Oakland | November 17, 2010



DESIGN, COMMUNITY & ENVIRONMENT

ST. JOHN'S CHURCH PROJECT EIR

Prepared for

City of Oakland | November 17, 2010



DESIGN, COMMUNITY & ENVIRONMENT

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TEL: 510 848 3815
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in association with
PGA Design, Inc.
Dowling Associates, Inc.
Environmental Collaborative
Kamman Hydrology & Engineering, Inc.

Sandis Engineering, Inc.
HortScience, Inc.



DALZIEL BUILDING • 250 FRANK H. OGAWA PLAZA, SUITE 2114 • OAKLAND, CALIFORNIA 94612-2031

Community and Economic Development Agency
Planning & Zoning Services Division

(510) 238-3911
FAX (510) 238-4730
TDD (510) 238-3254

**NOTICE OF RELEASE AND AVAILABILITY OF A
DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR
ST JOHN'S EPISCOPAL CHURCH IMPROVEMENTS**

PROJECT TITLE: St John's Episcopal Church – Parking, Bridge and New Sanctuary Improvements

CASE NUMBER: ER08-0001; SCH# 2008032031

PROJECT SPONSOR: Jerry Moran, Project Liaison
St John's Episcopal Church
1707 Gouldin Road
Oakland, CA 94611

PROJECT LOCATION: 5914 Thornhill Drive, 5928 Thornhill Drive, 1707 Gouldin Road, 1715 Gouldin Road, and 1676 Alhambra Lane

PROJECT DESCRIPTION:

Phase 1: Reconfiguration of site circulation, parking, bridge and creek improvements

Phase 1 of the project, includes demolishing the house at 5928 Thornhill Road, abandoning a portion of the shared access road with the home at 5940 Thornhill Road, and constructing a new access bridge over Temescal Creek. Primary ingress and egress would be via a new lane leading from the new bridge to an auto circle, which would allow pick-up and drop-off activities as well as provide improved fire truck access to the sanctuary. Perpendicular parking spaces would be provided along the new lane, as well as a separate pedestrian path, which would run parallel to the new lane. Existing parking areas near the sanctuary would be retained, and the existing parking along the upper parking lot would be retained and resurfaced. The Alhambra Lane driveway would be retained to allow egress for people parking in this area. The project proposes 41 parking spaces. Phase 1 also includes the removal of 2,300 square feet of asphalt parking lot abutting the eastern side of the existing sanctuary building and abandonment and removal of paving at the current, steep Gouldin Road entry. This area would be landscaped under Phase 2.

In total, the project proposes the removal of 65 trees, 56 of which fall under the City of Oakland tree preservation ordinance. All trees proposed for removal would be replaced with native species.

Phase 2: Construction of new 5,500 square-foot sanctuary

Phase 2 would involve construction of a new sanctuary building between 5,000 and 5,500 square feet and one story tall at the location of the current Gouldin Road entrance to the Church. Conceptual plans for the new sanctuary call for a 33-foot-high structure and a cupola with a bell. The new sanctuary would be constructed of wood, stucco and a composition roof material to match the style and materials of the existing sanctuary building. As part of this phase, the patio between the existing building and the new sanctuary would be renovated and

expanded. Upon completion of the new sanctuary building, the existing building would be converted into a community hall, fellowship space.

ENVIRONMENTAL REVIEW: A Notice of Preparation/Initial Study was issued by the City on March 8, 2008. A Scoping Session was held before the City Planning Commission on April 2, 2008. A Focused Draft Environmental Impact Report (DEIR) has been prepared for the project, under the requirements of the California Environmental Quality Act (CEQA), pursuant to Public Resources Code Section 21000 et. seq. The DEIR analyzes potentially significant environmental impacts in the following environmental categories: Aesthetic Resources; Biological Resources; Hydrology and Water Quality; and Traffic and Circulation. All other impact are less than significant or have been reduced to less-than-significant levels through the City's Standard Conditions of Approval or proposed mitigation measures, and will not be further studied. Copies of the DEIR are available for review or distribution to interested parties at no charge at the Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa, Suite 2215, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 5:00 p.m. Additional copies are available for review at the Oakland Public Library, Social Science and Documents, 125 14th Street, Oakland, CA 94612. The DEIR may also be reviewed at the following website:

<http://oaklandnet/home/Government/o/CEDA/o/PlanningZoning/s/Application/DOWD009157> (This is Project # 9 on the list).

PUBLIC HEARING:

Wednesday, December 15, 2010 at 6:00 p.m. Meeting of the City Planning Commission,
Hearing Room 1, City Hall, One Frank H. Ogawa Plaza

The City of Oakland is hereby releasing this Draft EIR, finding it to be accurate and complete and ready for public review. Members of the public are welcome to attend these hearings and provide comments. Comments on the DEIR should focus on whether the DEIR is sufficient in discussing possible impacts to the physical environment, ways in which potential adverse effects may be avoided or minimized through mitigation measures, and alternatives to the the project in light of the EIR's purpose to provide useful and accurate information about such factors. Comments may be made at the public hearing described above or in writing. Please address all comments to Caesar Quitevis, Planner II; City of Oakland, Community and Economic Development Agency, Planning Division; 250 Frank H. Ogawa Plaza, Suite 3315; Oakland, California 94612 or by email clquitevis@oaklandnet.com. Comments must be received no later than 4:00 p.m. on January 3, 2011.

After the comments have been received, a Final EIR will be prepared and the Planning Commission will consider certification of the EIR and rendering a decision on the project at a public hearing, date yet to be determined. All comments received will be considered by the City prior to finalizing the EIR and taking any further action pertaining to the Project. If you challenge the environmental document or other actions pertaining to the Project in court, you may be limited to raising only those issues raised at the public hearing described above or in written correspondence received by the Community and Economic Development Agency on or prior to January 3, 2011. For further information please contact Caesar Quitevis at (510)238-6343 or at clquitevis@oaklandnet.com.


Eric Angstadt, Environmental Review Officer

Notice of Completion & Environmental Document Transmittal

For U.S. Mail: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 916/445-0613

For Hand Delivery/Street Address: 1400 Tenth Street, Room 121, Sacramento, CA 95814

SCH# 2008032031

Project Title: St. John's Episcopal Church – Parking, Bridge and New Sanctuary Improvements

Lead Agency: City of Oakland, CEDA Planning & Zoning Contact Person: Caesar Quitevis
Street Address: 250 Frank H. Ogawa Plaza Phone: (510) 238-6343
City: Oakland Zip: 94612 County: Alameda

Project Location

County: Alameda City/Nearest Community: Oakland
Cross Streets: Thornhill Drive and Gouldin Road Zip Code: 94611 Total Acres: 3.13 acres
Assessor's Parcel No. 048F -7390-004-09/001-01/003-03/013-00/001-018 Section: Twp. Range: Base:

Within 2 Miles: State Hwy #: State Hwy 13 Waterways: Temescal Creek
Airports: NA Railways: NA Schools: 5858 Thornhill Dr., Thornhill Elementary

Document Type ☒ using this box to fill in blanks

CEQA:

- ☐ NOP ☒ Draft EIR
☐ Early Cons ☐ Supplement to EIR
☐ Neg. Dec. ☐ Subsequent EIR
☐ Mit Neg Dec ☐ Other

NEPA:

- ☐ NOI
☐ EA
☐ Draft EIS
☐ FONSI

Other:

- ☐ Joint Document
☐ Final Document
☐ Other:

Local Action Type

- ☐ General Plan Update ☒ Master Plan ☒ Use Permit ☐ Coastal Permit
☐ General Plan Amendment ☐ Planned Unit Development ☒ Land Division (Subdivision, etc.) ☐ Other:
☐ General Plan Element ☒ Site Plan ☐ Annexation
☐ Community Plan ☐ Rezone ☐ Redevelopment
☐ Specific Plan ☐ Prezone

Development Type

- ☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees
☐ Commercial: Sq.ft. Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
Total Acres: (approx.) 3.13 acres
- ☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type Watts
☐ Waste Treatment: Type
☐ Hazardous Waste:
☒ Other Community civic: Church expansion

Project Issues That May Have A Significant or Potentially Significant Impact:

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> Aesthetic/Visual | <input type="checkbox"/> Fiscal | <input type="checkbox"/> Recreation/Parks | <input checked="" type="checkbox"/> Vegetation |
| <input type="checkbox"/> Agricultural Land | <input type="checkbox"/> Flood Plain/Flooding | <input type="checkbox"/> Schools/Universities | <input checked="" type="checkbox"/> Water Quality |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Forest Land/Fire Hazard | <input type="checkbox"/> Septic Systems | <input type="checkbox"/> Water Supply/Groundwater |
| <input type="checkbox"/> Archaeological/Historical | <input type="checkbox"/> Geologic/Seismic | <input type="checkbox"/> Sewer Capacity | <input type="checkbox"/> Wetland/Riparian |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Minerals | <input type="checkbox"/> Soil Erosion/Compaction/Grading | <input type="checkbox"/> Growth Inducement |
| <input type="checkbox"/> Coastal Zone | <input type="checkbox"/> Noise | <input type="checkbox"/> Solid Waste | <input type="checkbox"/> Land Use |
| <input type="checkbox"/> Drainage/Absorption | <input type="checkbox"/> Population/Housing Balance | <input type="checkbox"/> Toxic/Hazardous | <input type="checkbox"/> Cumulative Effects |
| <input type="checkbox"/> Economic/Jobs | <input type="checkbox"/> Public Services/Facilities | <input checked="" type="checkbox"/> Traffic/Circulation | <input checked="" type="checkbox"/> Other: <u>Mandatory Findings</u>
<u>of Significance</u> |

Present Land Use/Zoning/General Plan Designation:

R-30, One- family Residential Zone / Hillside Residential General Plan Designation

Project Description: (please use a separate page if necessary)

Phase 1 of the project, includes demolishing the house at 5928 Thornhill Road, abandoning a portion of the shared access road with the home at 5940 Thornhill Road, and constructing a new access bridge over Temescal Creek. Primary ingress and egress would be via a new lane leading from the new bridge to an auto circle, which would allow pick-up and drop-off activities as well as provide improved fire truck access to the sanctuary. Perpendicular parking spaces would be provided along the new lane, as well as a separate pedestrian path, which would run parallel to the new lane. Existing parking areas near the sanctuary would be retained, and the existing parking along the upper parking lot would be retained and resurfaced. The Alhambra Lane driveway would be retained to allow egress for people parking in this area. The project proposes 41 parking spaces. Phase 1 also includes the removal of 2,300 square feet of asphalt parking lot abutting the eastern side of the existing sanctuary building and abandonment and removal of paving at the current, steep Gouldin Road entry. This area would be landscaped under Phase 2.

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Phase 2: Construction of new 5,500 square-foot sanctuary

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NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g., Notice of Preparation or previous draft document) please fill it in.

Reviewing Agencies Checklist

Local Agencies may recommend State Clearinghouse distribution by marking agencies below.

<input type="checkbox"/> Air Resources Board	<input type="checkbox"/> Office of Emergency Services
<input type="checkbox"/> Boating & Waterways, Department of	<input type="checkbox"/> Office of Historic Preservation
<input type="checkbox"/> California Highway Patrol	<input type="checkbox"/> Parks & Recreation
<input type="checkbox"/> Caltrans District # _____	<input type="checkbox"/> Pesticide Regulation, Department of
<input type="checkbox"/> Caltrans Division of Aeronautics	<input type="checkbox"/> Public Utilities Commission
<input type="checkbox"/> Caltrans Planning	<input type="checkbox"/> Reclamation Board
<input type="checkbox"/> Coachella Valley Mountains Conservancy	<input checked="" type="checkbox"/> Regional WQCB # <u>2</u>
<input type="checkbox"/> Coastal Commission	<input type="checkbox"/> Resources Agency
<input type="checkbox"/> Colorado River Board	<input type="checkbox"/> S.F. Bay Conservation & Development Commission
<input type="checkbox"/> Conservation, Department of	<input type="checkbox"/> San Gabriel & Lower Los Angeles Rivers
<input type="checkbox"/> Corrections, Department of	<input type="checkbox"/> & Mountains Conservancy
<input type="checkbox"/> Delta Protection Commission	<input type="checkbox"/> San Joaquin River Conservancy
<input type="checkbox"/> Education, Department of	<input type="checkbox"/> Santa Monica Mountains Conservancy
<input type="checkbox"/> Office of Public School Construction	<input type="checkbox"/> State Lands Commission
<input type="checkbox"/> Energy Commission	<input type="checkbox"/> SWRCB: Clean Water Grants
<input checked="" type="checkbox"/> Fish & Game Region # <u>3</u>	<input type="checkbox"/> SWRCB: Water Quality
<input type="checkbox"/> Food & Agriculture, Department of	<input type="checkbox"/> SWRCB: Water Rights
<input type="checkbox"/> Forestry & Fire Protection	<input type="checkbox"/> Tahoe Regional Planning Agency
<input type="checkbox"/> General Services, Department of	<input type="checkbox"/> Toxic Substances Control, Department of
<input type="checkbox"/> Health Services, Department of	<input type="checkbox"/> Water Resources, Department of
<input type="checkbox"/> Housing & Community Development	<input checked="" type="checkbox"/> Other <u>U.S. Army Corps of Engineers</u>
<input type="checkbox"/> Integrated Waste Management Board	<input type="checkbox"/> Other _____
<input type="checkbox"/> Native American Heritage Commission	

Local Public Review Period (to be filled in by lead agency)

Starting Date November 17, 2010

Ending Date January 3, 2011

Lead Agency (Complete if applicable):

Applicant: St. John's Episcopal Church

Consulting Firm: Design, Community & Environment
Address: 1625 Shattuck Avenue, Suite 300
City/State/Zip: Berkeley, CA 94709
Contact: Steven Noack, AICP
Phone: (510) 848-3815 ext 306

Address: 1707 Gouldin Road
City/State/Zip: Oakland, CA 94611
Phone: (510) 531-0980

Signature of Lead Agency Representative 

Date 11/5/10

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Appendix B:	Initial Study
Appendix C:	Comments on Notice of Preparation/Initial Study and Scoping Session
Appendix D:	Response to Comments on Notice of Preparation/Initial Study
Appendix E:	Biological Resource Conditions – Biological Resource Conditions, St. John’s Church Site, Oakland, California. Environmental Collaborative, October 18, 2010.
Appendix F:	Tree Report – Tree Report, St. John’s Episcopal Church, Oakland, CA. HortScience, March 2009.

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Appendix G:	Hydrology <ul style="list-style-type: none">- Bridge Design Review: St. Johns Episcopal Church, Oakland, CA. Kamman Hydrology & Engineering, Inc., June 28, 2007.- Hydrology Report. Kamman Hydrology & Engineering, Inc., Revised May 3, 2010.- Peer Review Comments for Kamman Hydrology Report Revised May 3, 2010 and received May 14, 2010, St. Johns Church, Oakland, CA. FarWest Restoration Engineering, May 18, 2010.
Appendix H:	Geotechnical Investigation <ul style="list-style-type: none">- Geotechnical Investigation, St. John's Episcopal Church, Entry Road, Bridge Parking and New Sanctuary, Oakland, California. Land/Marine Geotechnics, May 2005.
Appendix I:	Traffic and Circulation <ul style="list-style-type: none">- Traffic Study - Renovation at St Johns Episcopal Church, Oakland. Dowling Associates, Inc., April 9, 2007.- Supplemental Transportation and Parking Study for the Renovation at St. John's Episcopal Church, Oakland. Dowling Associates, Inc., July 15, 2008.- Addendum to the Supplemental Transportation and Parking Study for the Renovation at St John's Episcopal Church, Oakland. Dowling Associates, Inc., September 23, 2008.- Intersection Level of Service and Peak-Hour Warrants Calculation Sheets. Dowling Associates, Inc., September 8, 2010.

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I INTRODUCTION

This focused Draft Environmental Impact Report (DEIR) provides an assessment of potential environmental consequences of the construction and operation of the proposed St. John's Church project related to aesthetics, biology, hydrology and water quality, traffic and circulation, and greenhouse gas (GHG) emissions. All other impacts were screened out from further study as part of the Initial Study process. The City of Oakland is the lead agency for the project. This DEIR is intended to inform City of Oakland decision-makers, other responsible agencies, and the public-at-large of the nature of the project and its potentially significant effects, proposed mitigation measures and standard conditions of approval that would reduce or avoid potential impacts; residual environmental impacts after mitigation, if any, and alternatives to the project that reduce or avoid significant effects on the environment. This DEIR has been prepared in accordance with the California Environmental Quality Act (CEQA) requirements.

A. Proposed Action

The project consists of the improvements to an existing church complex located on a 3.13-acre site, located at 1707 Gouldin Road within the City of Oakland. The site is approximately 4 miles northeast of downtown Oakland and less than one mile from Highway 13. In Phase 1, the project will reconfigure site circulation and parking, and will include creek improvements and construction of a new bridge that would cross Temescal Creek. Phase 2 will consist of the construction of a new sanctuary no larger than 5,500 square feet.

B. Report Organization

This report is organized into the following chapters:

- ◆ *Chapter 1: Introduction.* Provides an introduction and overview of the DEIR document.

- ◆ *Chapter 2: Report Summary.* Provides a synopsis of the environmental impacts from the proposed project, describes recommended mitigation measures, and indicates the level of significance of impacts before and after mitigation.
- ◆ *Chapter 3: Project Description.* Describes the proposed project in detail, including the location, background information, primary objectives, and structural and technical characteristics.
- ◆ *Chapter 4: Environmental Evaluation.* Provides an analysis of the potential environmental impacts of the proposed project and presents Standard Conditions of Approval (SCA) and recommended mitigation measures to reduce their significance.
- ◆ *Chapter 5: Alternatives to the Proposed Project.* Considers three alternatives to the proposed project, including the CEQA-required “No Project Alternative.”
- ◆ *Chapter 6: CEQA-Required Assessment Conclusions.* Briefly explains why the project would not have impacts related to other environmental issues included under CEQA’s purview.
- ◆ *Chapter 7: Report Preparation.* Identifies the preparers of the DEIR.
- ◆ *Chapter 8: References.* Source material used in preparation of the DEIR.

This EIR also includes nine appendices that include technical documents used in the analysis, included on a CD attached to the back cover. A complete list of appendices is included in the Table of Contents, and appendices are referenced throughout this EIR.

C. Key Issues

This focused EIR will analyze the following environmental topics: Aesthetics, Biological Resources, Hydrology and Water Quality, and Traffic and Circulation.

Through the Notice of Preparation (NOP), Initial Study, and Scoping Session before the City Planning Commission, the following topics were determined to not require further study in the EIR: Agriculture, Air Quality, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation and Utilities and Service Systems.

D. Environmental Review Process

This DEIR will be available for review by the public and interested parties, agencies and organizations for a 45-day comment period. During this period, the public is invited to submit written comments to the City of Oakland to:

Mr. Caesar Quitevis
City of Oakland
Community and Economic Development Agency
Planning and Zoning Division
250 Frank H. Ogawa Plaza, Suite 2114
Oakland, CA 94612
E-mail: CQuitevis@oaklandnet.com

The City will also hold a public hearing on the DEIR during the review period, as indicated in the Notice of Release and Availability included at the beginning of this document. The public is invited to attend the hearing to offer oral and written comments on this DEIR.

Following the close of the 45-day comment period, a Final Environmental Impact Report (FEIR) will be prepared to respond to all substantive comments received on the DEIR related to environmental issues surrounding the project. The FEIR will be available for public review prior to consideration of its certification by the City of Oakland Planning Commission.

Once the Planning Commission certifies the FEIR, the Commission will also consider the project itself, which may be approved or denied. If the project is

approved, the Commission may require SCA and/or mitigation measures specified in this EIR as conditions of project approval. Alternatively, the Commission could require other conditions and/or mitigation measures deemed to be appropriate for the identified impacts, or it could find that the mitigation measures cannot be feasibly implemented. For any identified significant impacts for which no SCA and/or mitigation measure is feasible, the Commission will be required to adopt a finding that the measures are outside the jurisdiction of the City, or that the impacts are considered acceptable because specific overriding considerations indicate that the project's benefits outweigh the impacts in question. In each such case, a finding of a significant and unavoidable impact would be made.

2 REPORT SUMMARY

This summary presents an overview of the analysis contained in Chapter 4.0, Environmental Evaluation. CEQA requires that this chapter summarize the following: 1) areas of controversy; 2) significant impacts; 3) unavoidable significant impacts; 4) implementation of mitigation measures; and 5) alternatives to the project.

A. Project Under Review

This Draft EIR provides an assessment of the potential environmental consequences of the development of the property, rehabilitation of Temescal Creek, and supporting transportation infrastructure of the project site.

B. Areas of Controversy

The City has also received correspondence from members of the public expressing concerns about the project. In particular, concerns have been raised about the following environmental issues:

- ◆ **Aesthetics.** Concerns have been raised about the impacts to visual resources and the visual character of the project site.
- ◆ **Effects on biological resources.** Concerns have been raised about the impacts to plant and animal species within the project site, along Temescal Creek.
- ◆ **Hydrology.** Concerns have been raised about grading the banks of Temescal Creek, construction of a bridge over the creek, and changing or moving the location of the creek.
- ◆ **Traffic congestion and circulation.** Concerns have been raised about available parking supply, and the increase in traffic congestion resulting from vehicles entering and exiting the project site on Thornhill Road.

C. 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 and aesthetic significance.

The proposed project has the potential to generate environmental impacts in a number of areas that could be significant:

- ◆ Aesthetics
- ◆ Biological Resources
- ◆ Hydrology and Water Quality
- ◆ Traffic and Circulation

As shown in Table 2-2, all of the significant impacts in these areas would be reduced to a less-than-significant level if the Standard Conditions of Approval (SCAs) and mitigation measures recommended in this report were implemented.

D. Standard Conditions of Approval and Mitigation Measures

This Draft EIR recommends project-specific mitigation measures and adoption of City of Oakland's Standard Conditions of Approval that would reduce the impacts identified above to less-than-significant levels, as summarized in Table 2-2 at the end of this chapter. Project-specific mitigation measures in this Draft EIR will form the basis of a project-specific mitigation monitoring program to be implemented in accordance with State law.

E. Significant Unavoidable Impacts

The project is not expected to cause any significant unavoidable impacts. All potential impacts can be mitigated to a less-than-significant level with the implementation of the mitigation measures outlined in this EIR.

F. Impacts Found Not to be Significant

CEQA allows environmental issues for which there is no likelihood of a significant impact to be “scoped out” during the EIR scoping process and not covered in an EIR. As detailed in the Notice of Preparation/Initial Study (NOP/IS) included in Appendices B and C, which was circulated for a 30-day public review period and a scoping session held by the City Planning Commission, the following issues were “scoped out” and not analyzed further in this EIR.

- ◆ Agricultural Resources
- ◆ Air Quality
- ◆ Cultural Resources
- ◆ Geology and Soils
- ◆ Hazards and Hazardous Materials
- ◆ Land Use and Planning
- ◆ Mineral Resources
- ◆ Noise
- ◆ Population and Housing
- ◆ Public Services
- ◆ Recreation
- ◆ Utilities and Services Systems

In March 2010, the California Environmental Quality Act CEQA Guidelines were updated. As a part of the update, standards of significance pertaining to Greenhouse Gas (GHG) Emissions were added as a topic to be addressed under CEQA. In addition to the updated CEQA guidelines, the Bay Area Air Quality Management District (BAAQMD) issued updated guidelines and quantified pollutant emissions for air quality impacts, specifically construc-

tion and operational pollutants and greenhouse gas emissions. Although the NOP/IS for this project was circulated in March 2008, prior to the adoption of the updated CEQA and BAAQMD thresholds. This project was evaluated against the BAAQMD's screening criteria to determine if the project would likely require an in-depth analysis of construction- and operation-period emissions. The screening criteria, which estimates the quantities of emissions based on the size of proposed construction, provides a screening level for pollutants from the operational period and construction period as well as GHG emissions. Table 2-1 provides the criteria by which the project was compared against. The project proposes the construction and operation of a church sanctuary no larger than 5,500 square feet. When comparing the size of the project to the screening criteria, it was determined that the project was not large enough to require additional analysis. In summary, Air Quality and GHG chapters are not included in this document, but the impacts resulting from Air Quality and GHG would be considered less-than-significant.

The geotechnical investigation, as included in Appendix H, provides analysis of the project under an earlier configuration. The configuration evaluated in the investigation differs only slightly from the proposed project, as described in Chapter 3, Project Description, of this EIR. The most significant differences between the configuration evaluated in the geotechnical evaluation and the project evaluated in this EIR includes a slight rotating and straightening of the bridge, and reduction of the parking capacity along the proposed entry road. Other components of the project, including the vehicle turnaround circle, sanctuary and the parking area adjacent to the ADA parking area has not been altered. Thus, the previous geotechnical evaluation is still valid.

Responses to comments on the NOP/IS relating to noise, slope stability and geology are included in Appendix D.

TABLE 2-1 **OPERATIONAL-RELATED CRITERIA AIR POLLUTANT
PRECURSOR SCREENING LEVEL SIZES FOR A PLACE OF
WORSHIP**

Criteria	Screening Size (Square Feet)
Operational Criteria, Pollutant Screening Size	439,000 (NOX)
Operational GHG Screening Size	61,000
Construction-Related Screening Size	277,000 (ROG)

NOX: Oxides of nitrogen

ROF: Reactive organic gases

Source: BAAQMD, Air Quality Guidelines.

G. Alternatives to the Project

An EIR must evaluate a reasonable range of feasible alternatives to the project or the location of the project that would achieve most of the basic project objectives and would avoid or substantially lessen any of the significant impacts of the project. Chapter 5 compares the impacts of three alternatives to those of the project, the No Project Alternative, the Existing Gouldin Road/Alhambra Lane Access, and the Gouldin Road Access Alternative. In addition, the EIR considered, but did not study in detail five other alternatives including access to the site through Alhambra Lane, an alternate driveway from Gouldin Road, an alternate bridge location from Thornhill Drive, alteration of the existing church, and an off-site location. The No Project alternative would be the environmentally superior alternative. The environmentally superior build alternative is Alternative 2 (Existing Gouldin Road/Alhambra Lane Access).

- ◆ **Alternative 1 - No Project Alternative.** Under this alternative, which is required to be analyzed under CEQA, the proposed project would not be constructed, the site would be left in its current state, and the church would continue operations under existing conditions.

- ◆ **Alternative 2 - Existing Gouldin Road/Alhambra Lane Access.** Under this alternative, the proposed project would include a one-way, rehabilitated ingress driveway from Gouldin Road and a one-way rehabilitated egress driveway to Alhambra Lane. A sanctuary, similar in size to the proposed project, would be located between Temescal Creek and the existing parking area, requiring the demolition of 5928 Thornhill Drive. No bridge would be constructed under this alternative.
- ◆ **Alternative 3 - Gouldin Road Access.** Under this alternative, the proposed project would include a two-way, ingress driveway from Gouldin Road that would provide primary access to the site. The egress driveway to Alhambra lane would be rehabilitated within the site. A sanctuary, similar in size to the proposed project, would be located between Temescal Creek and the existing parking area, requiring the demolition of 5928 Thornhill Drive. No bridge would be constructed under this alternative.

H. Summary Table

Table 2-2 presents a summary of impacts and mitigation measures identified in this report. It is organized to correspond with the environmental issues discussed in Chapter 4.

The table is arranged in four columns: 1) environmental impacts; 2) significance prior to SCA/mitigation; 3) SCA or mitigation measures; and 4) significance after SCA/mitigation. A series of mitigation measures is noted where more than one may be required to achieve a less-than-significant impact. For a complete description of potential impacts and suggested SCA/mitigation measures, please refer to the specific discussions in Chapter 4. Additionally, this summary does not detail the timing of mitigation measures. Timing will be further detailed in the SCA/mitigation monitoring and reporting program.

TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
AESTHETICS			
The project would create a new source of substantial light or glare.	PS	Standard Condition of Approval AES-1: Lighting Plan. <i>Prior to the issuance of an electrical or building permit.</i> The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans shall be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. All lighting shall be architecturally integrated into the site.	LTS
BIOLOGICAL RESOURCES			
Impact BIO-1: The project site currently does not support occurrences of any special-status species, but there remains a remote possibility that California red-legged frog could disperse along Temescal Creek in the future. If any frogs are present in this reach of the creek when bridge and restoration work is to be implemented, individuals could be injured or destroyed unless appropriate measures are taken. This is a <i>potentially significant</i> impact.	PS	BIO-1: The applicant shall implement appropriate avoidance measures and shall conduct a pre-construction survey for California red-legged frog and western pond turtle prior to initiation of the bridge construction or stabilization efforts work along Temescal Creek. The USFWS has outlined mitigation measures for activities authorized by the Corps under their Nationwide Permit program in their <i>Programmatic Formal Endangered Species Act Consultation on Issuance of Permits under Section 404 of the Clean Water Act or Authorizations under the Nationwide Permit Program for projects that May Affect the California Red-legged Frog</i> . The following procedures are adapted from the Programmatic opinion by the USFWS and shall be implemented to avoid potential impacts: ♦ A qualified biologist shall conduct a pre-construction survey of the creek to confirm absence of any California red-legged frog and western pond turtle from the site. The survey shall be conducted no more than two weeks before any construction activities are initiated in or within 100 feet of the creek. If western pond turtles, California red-legged frogs, tadpoles, or eggs are found, the qualified approved biologist shall contact the	LTS

LTS = Less Than Significant PS = Potentially Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>USFWS, to determine if moving any of these lifestates is appropriate. Only a USFWS-approved biologist shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.</p> <ul style="list-style-type: none"> ◆ Before any construction activities begin, the approved biologist(s) shall conduct a training session for all construction personnel. At a minimum, the training shall include: (a) a description of the California red-legged frog and habitat for this species; (b) the general measures that are being implemented to conserve this species as they relate to the project, and (c) the boundaries within which the project may be accomplished. ◆ During project construction activities, all trash that may attract predators shall be properly contained, removed from the work site and disposed of properly. ◆ All fueling and maintenance of vehicles and other equipment, and staging areas, shall be located at least 20 meet from the creek. Prior to the onset of work, the applicant shall prepare a plan to allow a prompt and effective response to any accidental spills into the creek. All workers shall be informed of the importance of preventing spills and the appropriate measures to take should a spill occur. ◆ Instream work (dewatering, bridge-related construction, channel stabilization, and bank stabilization plantings) will only occur between June 15 and October 15) during low flow periods. ◆ To control erosion during and after project construction, the applicant shall implement Best Management Practices, as identified by the RWQCB and described in a Stormwater Pollution Prevention Plan for the project. 	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<ul style="list-style-type: none"> ◆ If the construction reach of the creek is temporarily de-watered by pumping, intakes shall be completely screened with wire mesh not larger than five millimeters to prevent California red-legged frogs, from entering the pump. ◆ The USFWS-approved biologist shall permanently remove, from within the project site, any individuals of exotic wildlife species, such as bullfrogs and crayfish to the extent possible. 	
The proposed bridge and stabilization efforts in the Temescal Creek channel would affect areas of jurisdictional other waters. This is considered to be a <i>significant</i> impact.	S	<p>Standard Condition of Approval BIO-1: Regulatory Permits and Authorizations. <i>Prior to issuance of a demolition, grading, or building permit within vicinity of the creek.</i> Prior to construction within the vicinity of the creek, the project applicant shall obtain all necessary regulatory permits and authorizations from the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game, and the City of Oakland, and shall comply with all conditions issued by applicable agencies. Required permit approvals and certifications may include, but not be limited to the following:</p> <ul style="list-style-type: none"> a. U.S. Army Corps of Engineers (Corps): Section 404. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in Waters of the U.S., if any, within the interior of the project site, pursuant to Section 404 of the federal Clean Water Act. b. Regional Water Quality Control Board (RWQCB): Section 401 Water Quality Certification. Certification that the project will not violate state water quality standards is required before the Corps can issue a 404 permit, above. c. California Department of Fish and Game (CDFG): Section 1602 Lake and Streambed Alteration Agreement. Work that will alter the bed or bank of a stream requires authorization from CDFG. 	LTS

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>Standard Condition of Approval BIO-2: Tree Removal Permit on Creekside Properties. <i>Prior to issuance of a final inspection of the building permit.</i> Prior to removal of any tree located on the project site which is identified as a creekside property, the project applicant must secure the applicable creek protection permit, and abide by the conditions of that permit.</p> <p>Standard Condition of Approval BIO-3: Tree Removal During Breeding Season. <i>Prior to issuance of a tree removal permit.</i> To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of raptors shall not occur during the breeding season of March 15 and August 15. If tree removal must occur during the breeding season, all sites shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to start of work from March 15 through May 31, and within 30 days prior to the start of work from June 1 through August 15. The pre-removal surveys shall be submitted to the Planning and Zoning Division and the Tree Services Division of the Public Works Agency. If the survey indicates the potential presences of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the CDFG, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.</p>	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>Standard Condition of Approval BIO-4: Tree Removal Permit. <i>Prior to issuance of a demolition, grading, or building permit.</i> Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit from the Tree Division of the Public Works Agency, and abide by the conditions of that permit.</p> <hr/> <p>Standard Condition of Approval BIO-5: Tree Replacement Plantings. <i>Prior to issuance of a final inspection of the building permit.</i> Replacement plantings shall be required for erosion control, groundwater replenishment, visual screening and wildlife habitat, and in order to prevent excessive loss of shade, in accordance with the following criteria:</p> <ol style="list-style-type: none"> No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered. Replacement tree species shall consist of <i>Sequoia sempervirens</i> (Coast Redwood), <i>Quercus agrifolia</i> (Coast Live Oak), <i>Arbutus menziesii</i> (Madrone), <i>Aesculus californica</i> (California Buckeye) or <i>Umbellularia californica</i> (California Bay Laurel) or other tree species acceptable to the Tree Services Division. Replacement trees shall be at least of twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate. Minimum planting areas must be available on site as follows: <ol style="list-style-type: none"> For <i>Sequoia sempervirens</i>, three hundred fifteen square feet per tree; For all other species listed in #2 above, seven hundred (700) square feet per tree. 	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>e. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee as determined by the master fee schedule of the city may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians.</p> <p>f. Plantings shall be installed prior to the issuance of a final inspection of the building permit, subject to seasonal constraints, and shall be maintained by the project applicant until established. The Tree Reviewer of the Tree Division of the Public Works Agency may require a landscape plan showing the replacement planting and the method of irrigation. Any replacement planting which fails to become established within one year of planting shall be replanted at the project applicant's expense.</p> <hr/> <p>Standard Condition of Approval BIO-6: Tree Protection During Construction. <i>Prior to issuance of a demolition, grading, or building permit.</i> Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:</p> <p>a. Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project's consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.</p>	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<ul style="list-style-type: none"> b. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filling, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project's consulting arborist from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree. c. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the project's consulting arborist from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project's consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree. d. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration. e. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency and the project's consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged 	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.</p> <p>f. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.</p>	
Impact BIO-2: Shadows resulting from the placement of a vehicle bridge over Temescal Creek would result in the loss of approximately 476 square feet of riparian habitat.	S	<p><u>BIO-2:</u> Removal of invasive exotics and replanting of the creek corridor would generally serve to improve existing habitat values of the riparian corridor on the site, but compensatory mitigation would be required for the permanent loss of approximately 476 square feet of low quality riparian habitat. Options for achieving this off-site mitigation requirement would consist of one of the following:</p> <ol style="list-style-type: none"> 1. Preparing and implementing an off-site creek restoration program funded by the applicant that would serve to restore a minimum of 476 square feet of currently culverted creek corridor in Oakland. The program would be developed by a qualified creek restoration specialist that meets with the approval of the City, CDFG, RWQCB, and Corps, and secures any required permits as part of program implementation. The off-site restoration program shall specify performance criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures. Monitoring shall be conducted by the qualified creek restoration specialist for a minimum of five years and continue until the identified success criteria are met. 	LTS

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		2. Having the applicant make an in-lieu contribution to cover the costs of restoring a minimum of 476 square feet of riparian habitat at an off-site location as specified by the City of Oakland.	
Impact BIO-3: The construction of the proposed bridge and bioengineering treatments of the creek banks may require the use of heavy motorized equipment that could have an adverse impact on the riparian habitat of Temescal Creek.	S	<p><u>BIO-3a:</u> Prior to the issuance of a grading permit, the project applicant shall submit a study to the City, for its review and approval, which assesses the feasibility of using hand tools for work in/near the creek corridor. If the City determines the use of hand tools is infeasible, the project applicant shall submit a construction plan, for City review and approval, whose goal is to minimize the use of and impacts from mechanized equipment in/near the creek corridor to the maximum feasible extent. The project applicant shall implement the approved plan. The plan shall provide, at a minimum, the following:</p> <ul style="list-style-type: none"> ◆ Types and numbers of motorized equipment to be used in or near creek channel ◆ Duration of equipment use in or near the creek channel ◆ Delineated areas where mechanical equipment would be used in or near the creek channel ◆ Specific measures designed to minimize the impacts to the creek corridor <p><u>BIO-3b:</u> Prior to issuance of a grading permit, the project applicant shall develop a creek restoration plan for City review and approval. The applicant shall implement the approved plan. The goal of the plan is to restore the disturbed areas to the pre-construction conditions or better. Immediately following construction in or near the creek channel, disturbed areas will be restored. Specific techniques used for such restoration may include, but are not limited to, the use of roto-tilling quality compost 8 inches into the soil to promote a living soil structure, installation of native plant materials, and</p>	LTS

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		covering the soil surface with biodegradable erosion control fabric and a 3-inch layer of coarse mulch. If needed to temporary control erosion and sedimentation into the creek, straw wattles, silt fences, compost socks or similar measures which would prevent erosion as defined in the Stormwater Pollution Prevention Plan for the project.	
HYDROLOGY AND WATER QUALITY			
Hazardous materials associated with construction activities are likely to involve minor quantities of paint, solvents, oil and grease and petroleum hydrocarbons.		Standard Condition of Approval HYD-1: Stormwater Pollution Prevention Plan (SWPPP). <i>Prior to and ongoing throughout demolition, grading, and/or construction activities.</i> The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Planning and Zoning Division and the Building Services Division. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit a copy of the SWPPP and evidence of approval of the SWPPP by the SWRCB to the Building Services Division. Implementation of the SWPPP shall start with the commencement of construction and continue through the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.	LTS

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>Standard Condition of Approval HYD-2: Drainage Plan for Projects on Slopes Greater than 20%. <i>Prior to issuance of building permit (or other construction-related permit).</i> The project drawings submitted for a building permit (or other construction-related permit) shall contain a drainage plan to be reviewed and approved by the Building Services Division. The drainage plan shall include measures to reduce the post-construction volume and velocity of stormwater runoff to the maximum extent practicable. Stormwater runoff shall not be augmented</p> <p>To adjacent properties or creeks. The drainage plan shall include and identify the following:</p> <ul style="list-style-type: none"> i. All tproposed impervious surface on the site; ii. Anticipated directional flows of on-site stormwater runoff; iii. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; iv. Source control measures to limit the potential for stormwater pollution; and v. Stormwater treatment measures to remove pollutants from stormwater runoff. 	
		<p>Standard Condition of Approval HYD-3: Post-Construction Stormwater Pollution Management Plan. <i>Prior to issuance of building permit (or other construction-related permit).</i> The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a completed Stormwater Supplemental Form for the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater pollution management plan, for review and approval by the City,</p>	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable.</p> <p>a. The post-construction stormwater pollution management plan shall include and identify the following:</p> <ul style="list-style-type: none"> i. All proposed impervious surface on the site; ii. Anticipated directional flows of on-site stormwater runoff; and iii. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and iv. Source control measures to limit the potential for stormwater pollution; and v. Stormwater treatment measures to remove pollutants from stormwater runoff. <p>b. The following additional information shall be submitted with the post-construction stormwater pollution management plan:</p> <ul style="list-style-type: none"> i. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and ii. Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e. non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable of removing the range of pollutants typically removed by landscape-based treatment measures. <p>All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site</p>	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		stormwater treatment measures in the post-construction stormwater pollution management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program.	
		<i>Prior to final permit inspection.</i> The applicant shall implement the approved stormwater pollution management plan.	
		Standard Condition of Approval HYD-4: Maintenance Agreement for Stormwater Treatment Measures. <i>Prior to final zoning inspection.</i> For projects incorporating stormwater treatment measures, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following:	
		i. The applicant accepting responsibility for the adequate installation/ construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and	
		ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.	
		Standard Condition of Approval HYD-5: Erosion, Sedimentation, and Debris Control Measures. <i>Prior to issuance of demolition, grading, or construction-related permit.</i> The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable "Best Management	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP's for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> a. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek. b. In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected. c. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible. d. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted. (Note, due to the nature of the work, mechanized equipment may be necessary. See Mitigation Measures BIO-3a and BIO-3b in previous section.) 	

LTS = Less Than Significant PS = Potentially Significant S = Significant SU = Significant Unavoidable Impact

TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<ul style="list-style-type: none"> e. Install filter materials (such as sandbags, filter fabric, etc.) at the storm drain inlets nearest to the creek side of the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding. f. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains. g. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek. h. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site. i. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution. j. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work. k. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek. 	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<ul style="list-style-type: none"> l. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB). m. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of Planning and Zoning. n. All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately. 	
		<p>Standard Condition of Approval HYD-6: Creek Protection Plan. http://www.oaklandpw.com/creeks. <i>Prior to and ongoing throughout demolition, grading, and/or construction activities.</i></p> <ul style="list-style-type: none"> a. The approved creek protection plan shall be included in the project drawings submitted for a building permit (or other construction-related permit). The project applicant shall implement the creek protection plan to minimize potential impacts to the creek during and after construction of the project. The plan shall fully describe in plan and written form all erosion, sediment, stormwater, and construction management measures to be implemented on-site. 	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>b. If the plan includes a stormwater system, all stormwater outfalls shall include energy dissipation that slows the velocity of the water at the point of outflow to maximize infiltration and minimize erosion. The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains.</p> <hr/> <p>Standard Condition of Approval HYD-7: Creek Monitoring. <i>Prior to issuance of a demolition, grading, or building permit within vicinity of the creek.</i> A qualified geotechnical engineer and/or environmental consultant shall be retained and paid for by the project applicant to make site visits during all grading activities; and as a follow-up, submit to the Building Services Division a letter certifying that the erosion and sedimentation control measures set forth in the Creek Protection Permit submittal material have been instituted during the grading activities.</p> <hr/> <p>Standard Condition of Approval HYD-8: Creek Landscaping Plan. <i>Prior to issuance of a demolition, grading, or building permit within vicinity of the creek.</i> The project applicant shall develop a final detailed landscaping and irrigation plan for review and approval by the Planning and Zoning Division prepared by a licensed landscape architect or other qualified person. Such a plan shall include a planting schedule, detailing plant types and locations, and a system for temporary irrigation of plantings.</p> <p>a. Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.</p>	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<ul style="list-style-type: none"> b. All landscaping indicated on the approved landscape plan shall be installed prior to the issuance of a Final inspection of the building permit, unless bonded pursuant to the provisions of Section 17.124.50 of the Oakland Planning Code. c. All landscaping areas shown on the approved plans shall be maintained in neat and safe conditions, and all plants shall be maintained in good growing condition and, whenever necessary replaced with new plant materials to ensure continued compliance with all applicable landscaping requirements. All paving or impervious surfaces shall occur only on approved areas. 	
		<p>Standard Condition of Approval HYD-9: Creek Dewatering and Aquatic Life. <i>Prior to the start of and ongoing throughout any in-water construction activity.</i></p> <ul style="list-style-type: none"> a. If any dam or other artificial obstruction is constructed, maintained, or placed in operation within the stream channel, ensure that sufficient water is allowed to pass down channel at all times to maintain aquatic life (native fish, native amphibians, and western pond turtles) below the dam or other artificial obstruction. b. The project applicant shall hire a biologist, and obtain all necessary State and federal permits (e.g. CDFG Scientific Collecting Permit), to relocate all native fish/native amphibians/pond turtles within the work site, prior to dewatering. The applicant shall first obtain a project-specific authorization from the CDFG and/or the USFWS, as applicable to relocate these animals. Captured native fish/native amphibians/pond turtles shall be moved to the nearest appropriate site on the stream channel downstream. The biologist/contractor shall check daily for stranded aquatic life as the water level in the dewatering area drops. All reasonable efforts shall be made to capture and move all stranded aquatic 	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>life observed in the dewatered areas. Capture methods may include fish landing nets, dip nets, buckets, and by hand. Captured aquatic life shall be released immediately in the nearest appropriate downstream site. This condition does not allow the take or disturbance of any state or federally listed species, nor state-listed species of special concern, unless the applicant obtains a project specific authorization from the CDFG and/or the USFWS, as applicable.</p> <hr/> <p>Standard Condition of Approval HYD-10: Creek Dewatering and Diversion. <i>Prior to the start of any in-water construction activities.</i> If installing any dewatering or diversion device(s), the project applicant shall develop and implement a detailed dewatering and diversion plan for review and approval by the Building Services Division. All proposed dewatering and diversion practices shall be consistent with the requirements of the Streambed Alteration Agreement issued by the California Department of Fish and Game.</p> <ol style="list-style-type: none"> Ensure that construction and operation of the devices meet the standards in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB). Construct coffer dams and/or water diversion system of a non-erodable material which will cause little or no siltation. Maintain coffer dams and the water diversion system in place and functional throughout the construction period. If the coffer dams or water diversion system fail, repair immediately based on the recommendations of a qualified environmental consultant. Remove devices only after construction is complete and the site stabilized. Pass pumped water through a sediment settling device before returning the water to the stream channel. Provide velocity dissipation measures at the outfall to prevent erosion. 	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
TRAFFIC AND CIRCULATION			
Impact TRAF-1: Pedestrians crossing Thornhill Drive at the mid-block pedestrian crossing will be in close proximity to vehicles exiting the project site and turning left onto Thornhill Drive.	S	<u>TRAF-1:</u> The project applicant shall increase the visibility of the mid-block crosswalk and driveway by developing and submitting a plan to improve sight line distances and alert drivers exiting the site to the presence of pedestrians, subject to review and approval by City. Such a plan element may include without limitation the following: Signage, flashing beacons, mid-block crosswalk treatments, foliage trimming, and restriction of on-street parking near the driveway entrance. The applicant shall implement the approved plan.	LTS
Parking during the construction period could result in a reduction of available parking within the project site and surrounding streets. Additionally, although the project meets City of Oakland parking requirements, demand for parking during peak-hour Sunday Church Service would exceed parking supply and could result in on-street parking by Church attendees.		Standard Condition of Approval TRAF-1: Parking and Transportation Demand Management. <i>Prior to issuance of a final inspection of the building permit.</i> The applicant shall submit for review and approval by the Planning and Zoning Division a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The applicant shall implement the approved TDM plan. The TDM shall include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use. All four modes of travel shall be considered. Strategies to consider include the following: <ul style="list-style-type: none"> a. Inclusion of additional bicycle parking, shower, and locker facilities that exceed the requirement b. Construction of bike lanes per the Bicycle Master Plan; Priority Bikeway Projects c. Signage and striping onsite to encourage bike safety 	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<ul style="list-style-type: none"> d. Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient crossing at arterials e. Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan. f. Direct transit sales or subsidized transit passes g. Guaranteed ride home program h. Pre-tax commuter benefits (checks) i. On-site car-sharing program (such as City Car Share, Zip Car, etc.) j. On-site carpooling program k. Distribution of information concerning alternative transportation options l. Parking spaces sold/leased separately m. Parking management strategies; including attendant/valet parking and shared parking spaces <p>To further implement Standard Condition of Approval TRAF-2, the Church shall develop a memorandum of understanding with Thornhill Elementary School to utilize the school's blacktop, as needed, for non-construction parking during the summer when school is not in session.</p> <p>Standard Condition of Approval TRAF-2: Construction Traffic and Parking. <i>Prior to the issuance of a demolition, grading or building permit.</i> The project applicant and construction contractor shall meet with appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project</p>	

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TABLE 2-2 SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, AND MITIGATION MEASURES (CONTINUED)

Significant Impact	Significance Prior to SCA/Mitigation	Standard Conditions of Approval / Mitigation Measures	Significance With SCA/Mitigation
		<p>applicant shall develop a construction management plan for review and approval by the Planning and Zoning Division, the Building Services Division, and the Transportation Services Division. The plan shall include at least the following items and requirements:</p> <ol style="list-style-type: none"> A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur. Location of construction staging areas for materials, equipment, and vehicles at an approved location.). A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services. Provision for accommodation of pedestrian flow. Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces. 	

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3 PROJECT DESCRIPTION

This focused Environmental Impact Report (EIR) was prepared for the City of Oakland to evaluate potential environmental impacts resulting from the proposed development project at St. John's Church. The project application consists of two phases: a circulation and landscape plan in Phase 1 and a new sanctuary in Phase 2. The project will require a Conditional Use Permit, Tree Removal Permit, Tentative Parcel Map, Design Review, and Creek Protection Permit from the City as well as other permits from responsible agencies.

A. Regional and Local Setting

The proposed project site is located at 5914 Thornhill Drive, 5928 Thornhill Drive, 1707 Gouldin Road, 1715 Gouldin Road, and 1676 Alhambra Lane, within Montclair Village of the City of Oakland. The City of Oakland is located on the east side of the San Francisco Bay, approximately 4 miles east of the City of San Francisco. The project site is bounded by Gouldin Road to the east, and single-family residential homes to the north, west and south. Thornhill Elementary School, 5880 Thornhill Drive, is located adjacent to a portion of the church property to the west. Two additional parcels are owned by the Church; both single-family homes at 5914 Thornhill Road, and 1676 Alhambra Lane. The project site's regional and local settings are illustrated in Figures 3-1 and 3-2, respectively.

B. Existing Site Character

The existing site, which is 136,300 square feet or 3.13 acres, is located in a predominantly residential area of Oakland with substantial tree cover. Some of these trees fall under the City of Oakland tree preservation ordinance, including Coast Live Oak, Coast Redwood, Douglas Fir, and Giant Redwood.

Temescal Creek runs through the northern portion of the project site. As Temescal Creek flows into the project site in a 48-inch reinforced concrete culvert (RCP), where it is daylighted and winds through the

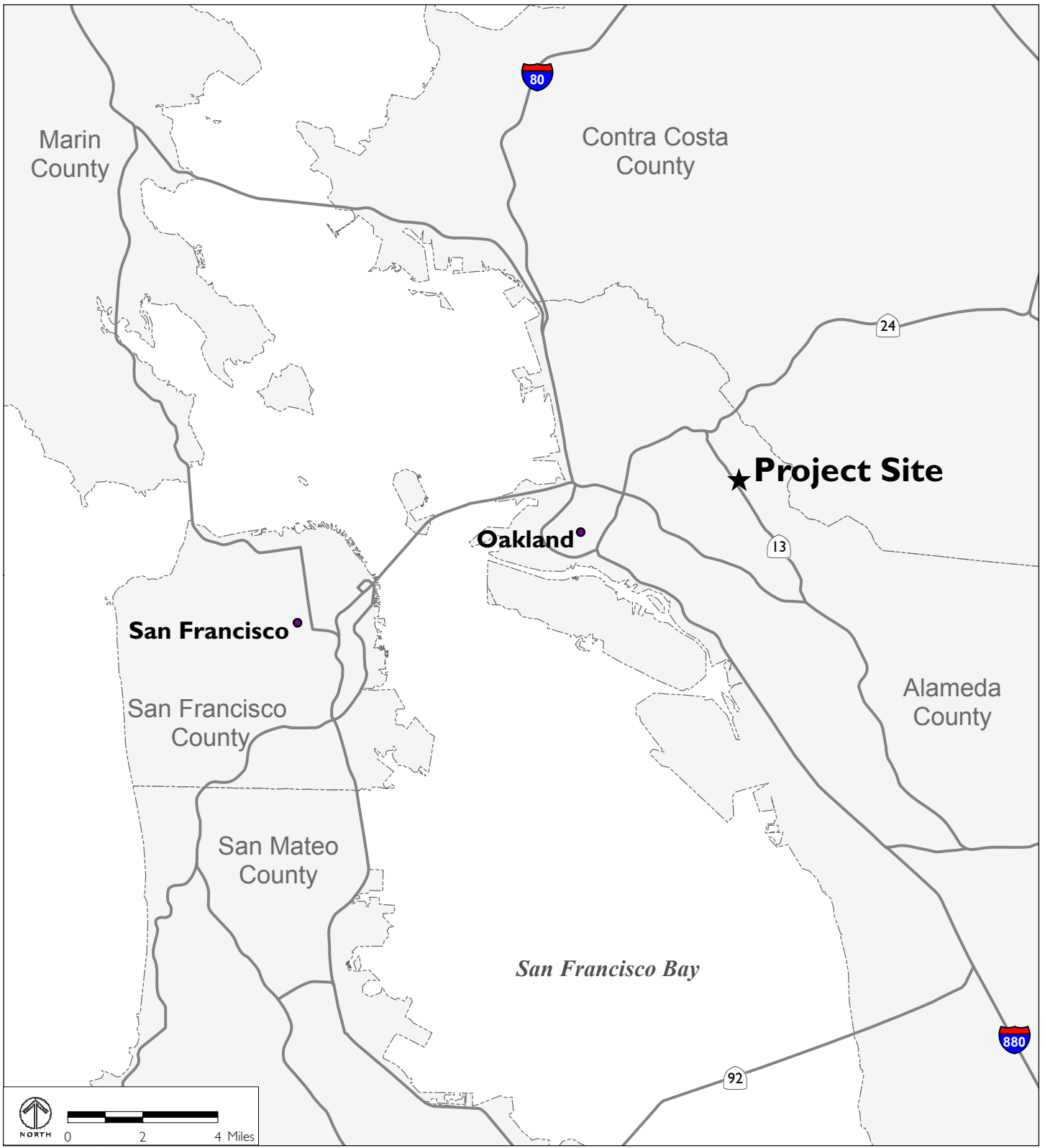


FIGURE 3-1

REGIONAL LOCATION

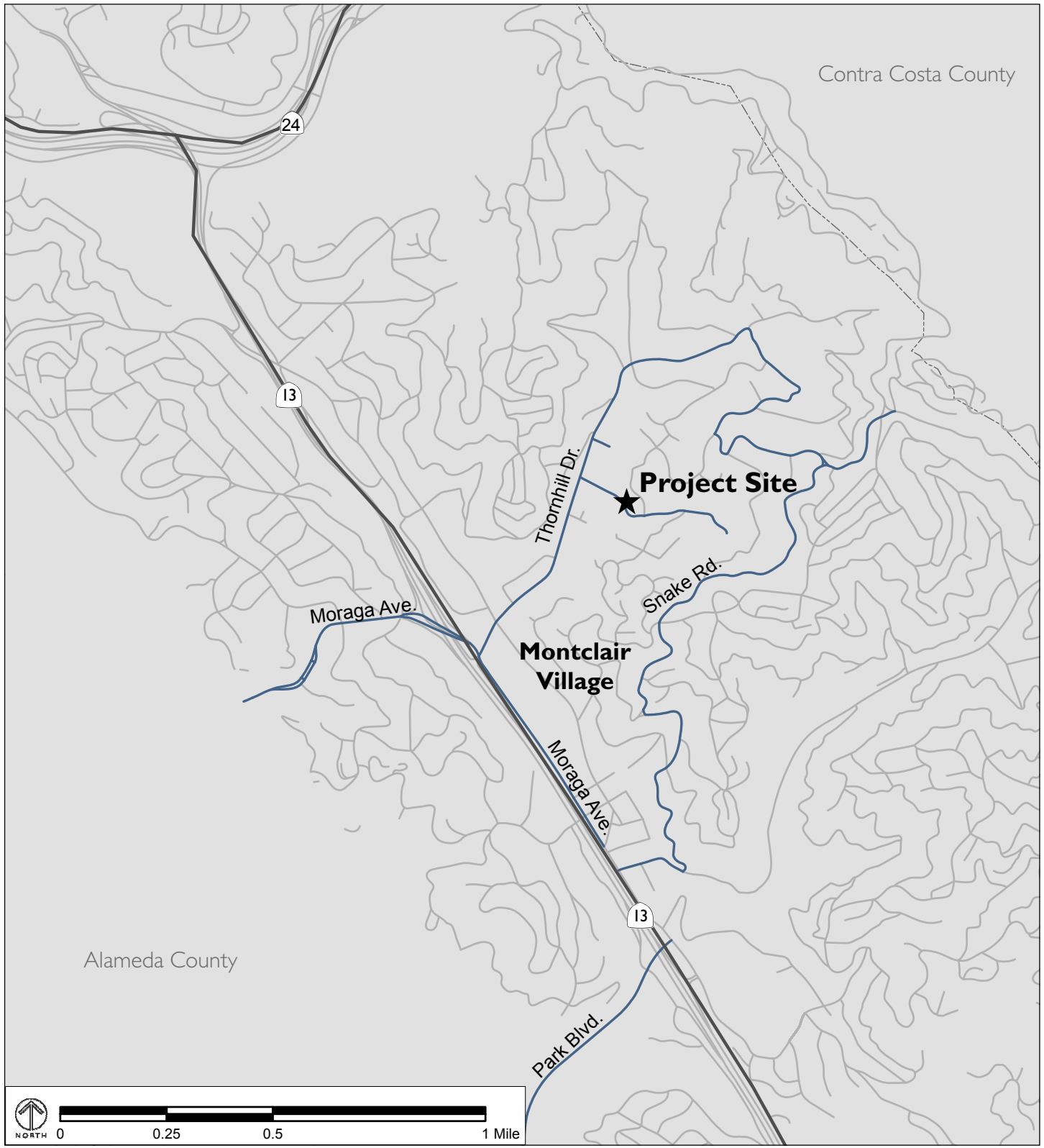


FIGURE 3-2

LOCAL LOCATION

site, exiting the site in an earth-lined channel before entering a culvert approximately 100 feet west of the site. A tributary drainage channel joins the creek along the south bank approximately 100-feet upstream of the 48-inch RCP.

C. Policy Setting

The City of Oakland's General Plan and Planning Code provide a policy frame-work to ensure that future development in the City is consistent with its priorities and goals.

1. City of Oakland General Plan

The land use designation for the project site is Hillside Residential where low residential densities and residential character are affected by slope, environmental, transportation, and fire safety constraints.

2. Zoning

The current zoning designation for the site is R-30, one-family residential where the proposed expanded activity, Civic Activity Community Assembly is a conditionally permitted use.

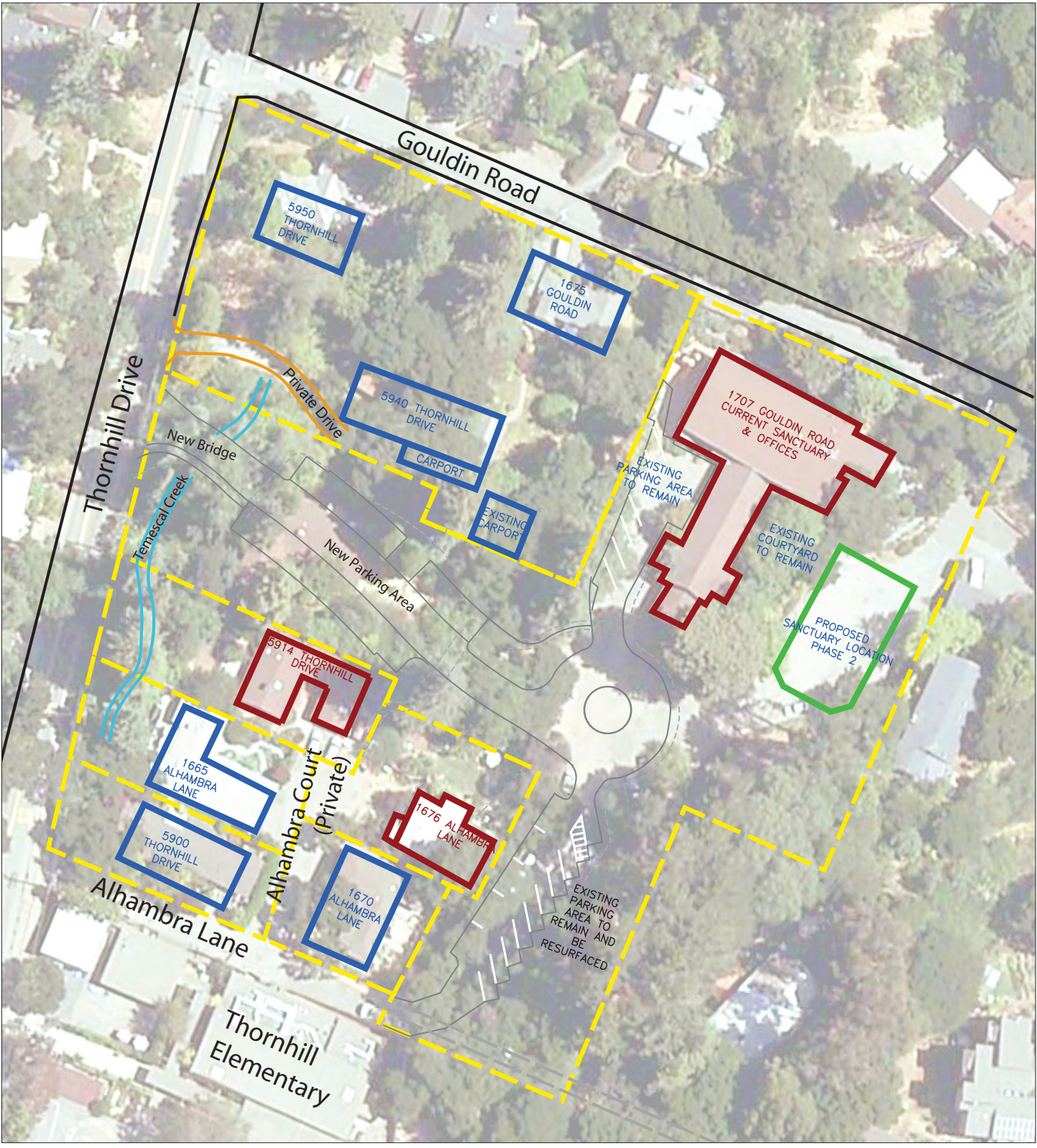
D. Project Characteristics

The section provides an overview of the proposed facilities and amenities included in the Project. Figures 3-3 through 3-6 provide information on the existing and proposed land uses. As shown on Figures 3-3 and 3-4, St. John's Church owns 5928 Thornhill Drive, 5914 Thornhill Drive, and 1676 Alhambra Lane in addition to the Church parcel located at 1707 Gouldin Road. The project proposes to utilize and merge the properties located at 5928 Thornhill Drive and 1707 Gouldin Road. Figure 3-5 shows the proposed Site Plan that includes the incorporation of all improvements and modifications to the project site after the completion of two construction phases. The construction



- Property Line
- Existing Structures
- Streets
- Owned by St. John's Church

FIGURE 3-3
EXISTING LAND USE



- | | |
|-------------------------|--------------------------------|
| --- Property Line | --- Proposed Sanctuary |
| --- Existing Structures | --- Curb/Sidewalk Edge |
| --- Streets | --- Owned by St. John's Church |

FIGURE 3-4

PROPOSED LAND USE

MATERIAL LEGEND

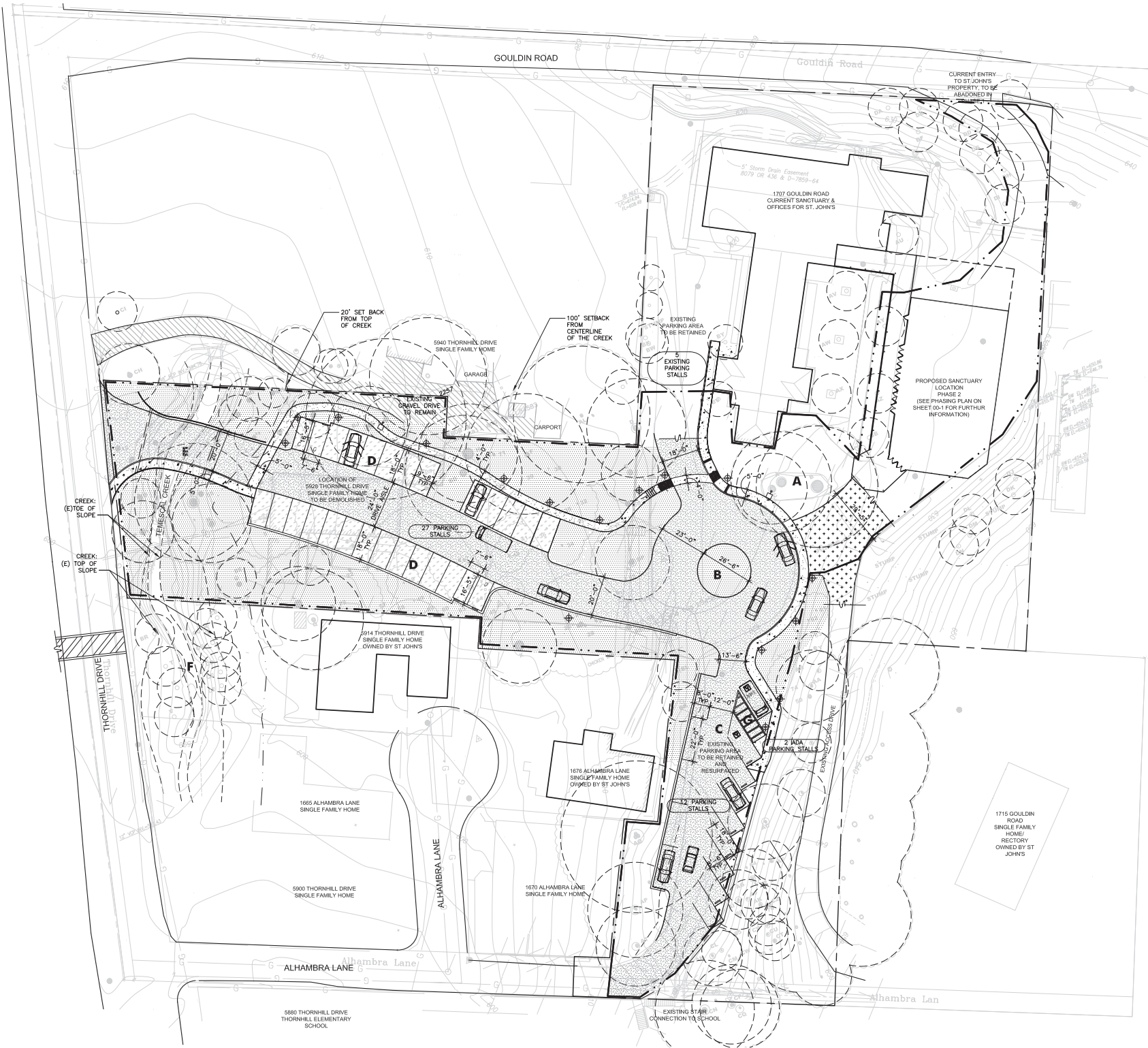
- AC PAVING, S.C.D.
- PERVIOUS PAVING AT PARKING STALLS:
GRAVEL PAVING WITH GRAVEL PAVE CELLS
FOR STABILIZATION.
- OTHER PAVING, PHASE 2: DG PAVING
- PEDESTRIAN PATHWAY, STABILIZED
DECOMPOSED GRANITE FINES
- PEDESTRIAN PATHWAY, INTEGRAL COLORED
CONCRETE
- BOLLARD LIGHT
- LIGHT INTEGRATED INTO BRIDGE RAILING,
S.A.D.
- PLANTING AREA: SEE L2-1: PLANTING PLAN
- EXISTING SHARED GRAVEL ACCESS DRIVE TO
REMAIN

KEY NOTE LEGEND

- A. EXISTING REDWOOD GROVE
- B. FIRE TRUCK TURNAROUND AND DROP-OFF
- C. UPPER PARKING AREA: EXISTING PARKING
AREA TO BE RESURFACED AND RESTRIPTED
OAK COVERED HILLSIDE ABOVE TO REMAIN
- D. PARKING GROVE: SEE SHEET L1-2.
- E. VEHICULAR AND PEDESTRIAN BRIDGE: 20
FOOT DRIVE AISLE WITH 5' PEDESTRIAN
WALK, SEE SHEET A1.1
- F. REHABILITATED CREEK RETAINING MANY OF
THE EXISTING REDWOODS, SEE CREEK
PLANTINGS.
- G. ADA PARKING STALLS: 1 VAN , 1 CAR

NOTES

1. ALL DIMENSIONS SHOWN ARE TYPICAL AND
NOMINAL.



Source: PGAdesign, Inc.

FIGURE 3-5
SITE PLAN

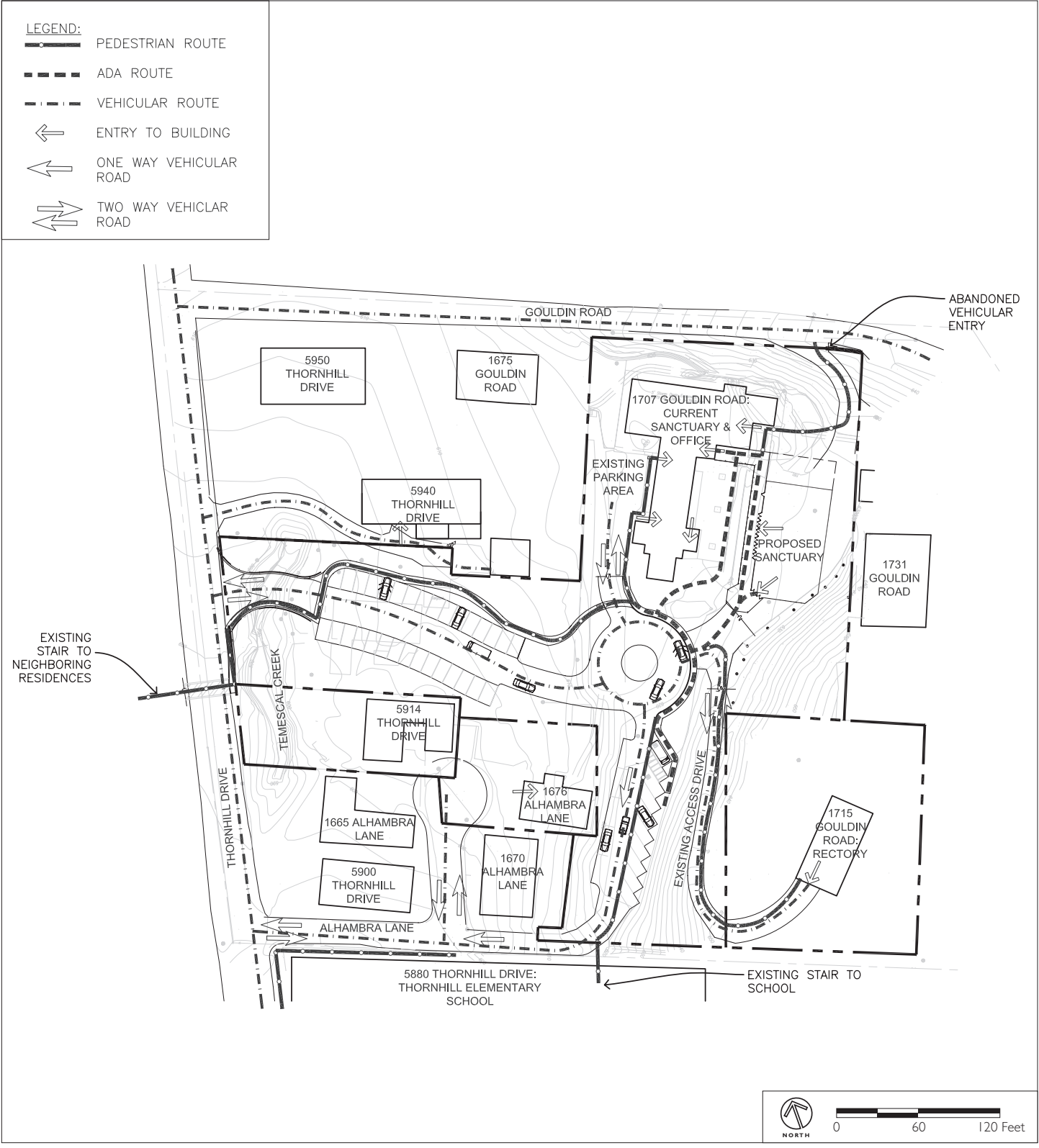
phases are shown in Figure 3-6. Additional description of the Site Plan is included in the following description of construction phases. Upon completion of the two construction phases, vehicle and pedestrian circulation through the project site will be substantially different. Figure 3-7 shows the proposed circulation plan that includes vehicular and pedestrian access throughout the site, as well as ADA routes and building entry locations.

1. Phase 1

Phase 1 of the project includes demolishing the house at 5928 Thornhill Road, abandoning a portion of the shared access road with the home at 5940 Thornhill Road, and constructing a new bridge over Temescal Creek that will connect to a new internal travel lane and parking area. The proposed bridge would be 25 feet wide, allowing for a 20-foot drive aisle and a 5-foot pedestrian walkway. The bridge would be constructed of steel and concrete and is shown in Figure 3-8. Figure 3-9 shows the conceptual structural plan for the proposed bridge. The bridge footings and piers will be located outside of the 100-year flood level of 598 feet.

Construction of the bridge will necessitate the modification of the creek banks beneath the location of the bridge and immediately upstream/downstream of the proposed bridge, as shown in Figures 3-10. The modifications will include laying back the currently over-steepened banks and stabilizing the exposed slopes using bioengineering techniques that will stabilize the creek banks, provide habitat and erosion protection, and prevent scour of the bridge support structure. The conceptual design for bioengineering treatments is shown in Figure 3-11. Bioengineering treatments include the installation of a live crib wall and vegetated soil lifts. The vegetated soil lifts would include the use of coir fabric and non-woven geotextile fabric in the middle of the treatment area to prevent erosion.

As shown in the site plan (Figure 3-5), primary ingress and egress would occur through a new lane leading from the new bridge to an auto circle, which would allow pick-up and drop-off activities as well as provide improved fire truck access to the sanctuary. Perpendicular parking spaces would be



Source: PGAdesign, Inc.

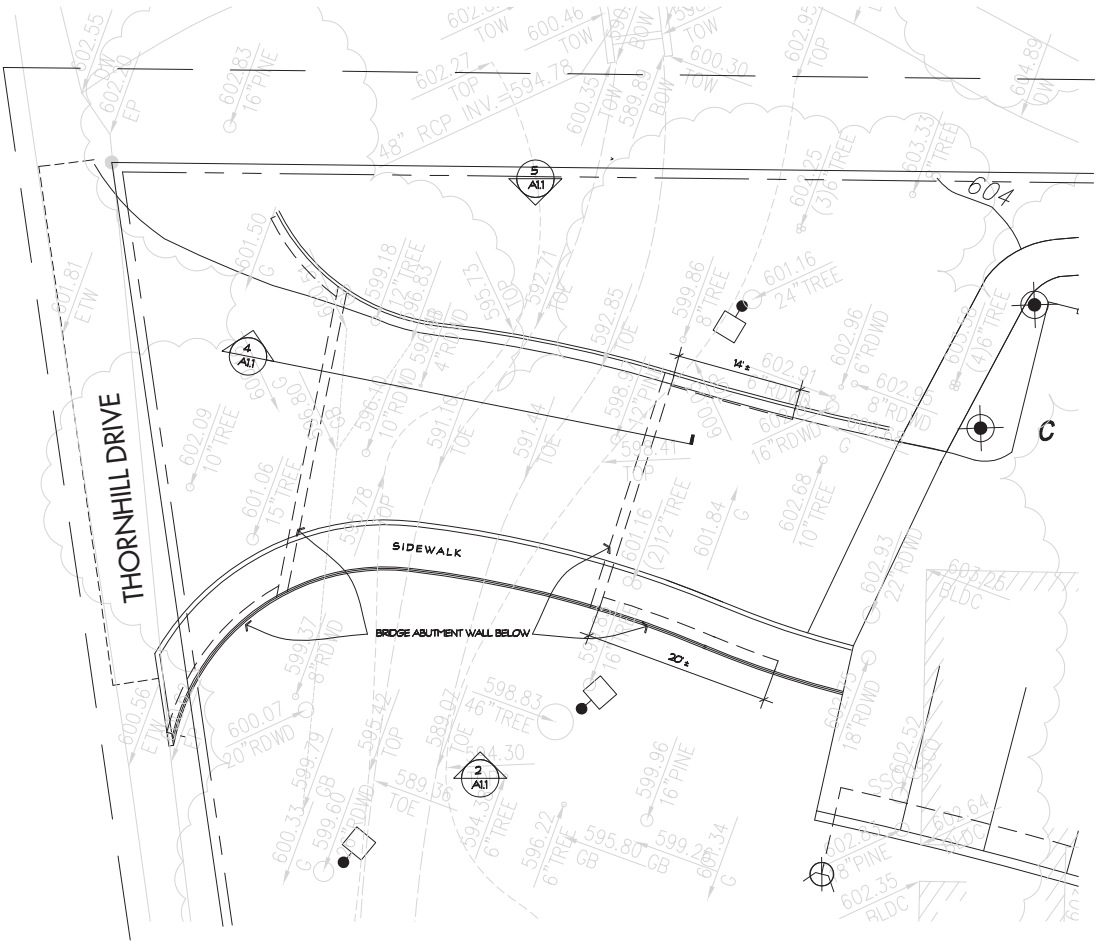
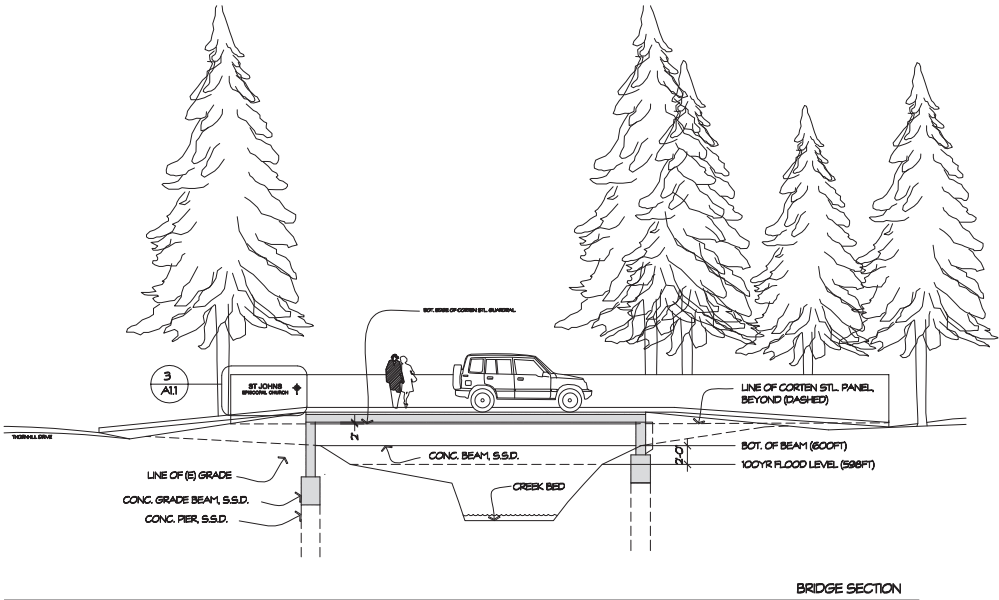
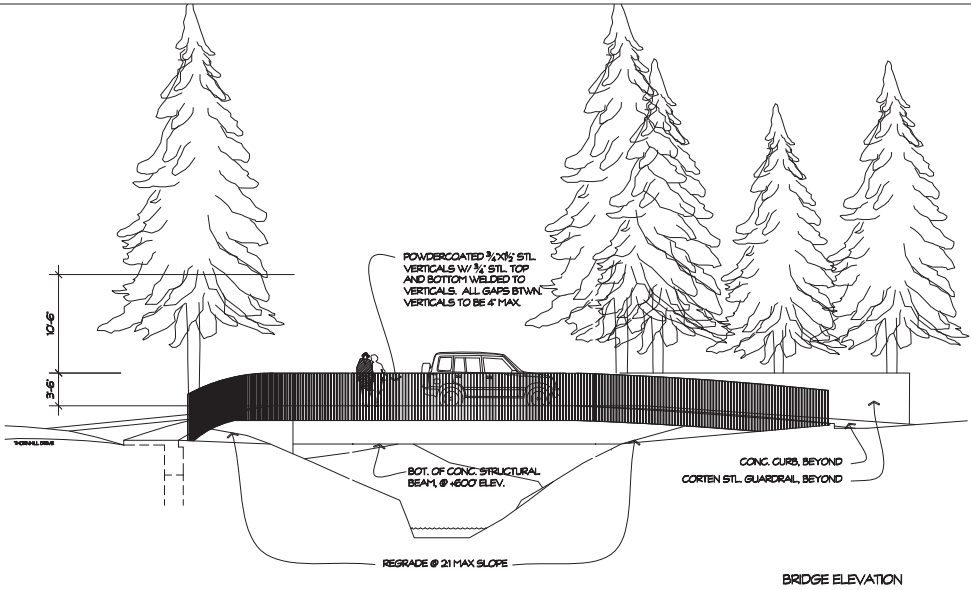
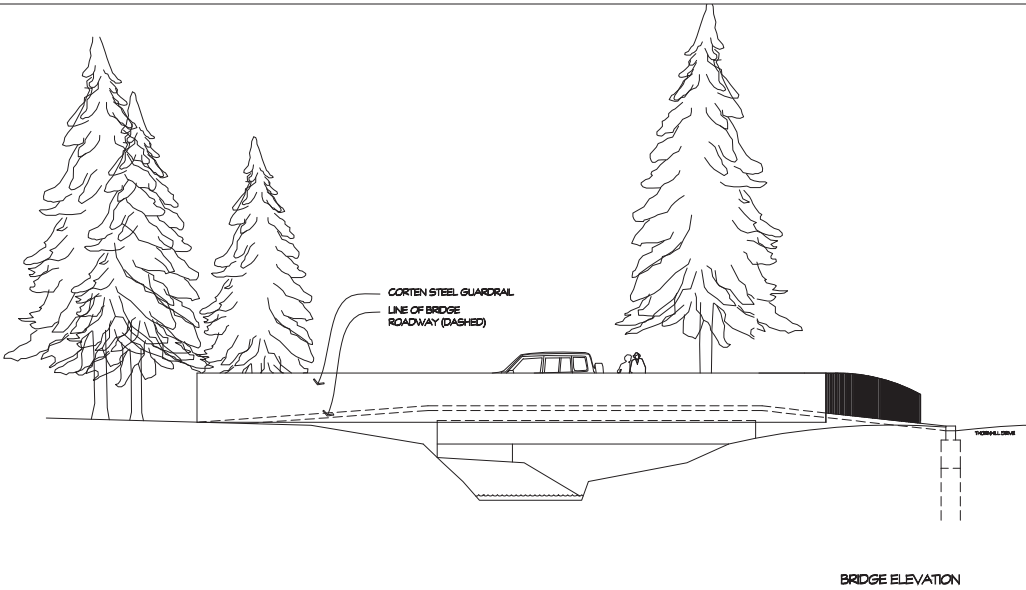
FIGURE 3-7
PROPOSED CIRCULATION PLAN

provided along the new lane. Regular parking stalls will be at least 18 feet in length, and 8.5 feet wide, and the driving lane will be 24 feet wide. A separate pedestrian path would run parallel to the lane. Existing parking areas near the sanctuary would be retained, and the existing parking along the upper parking lot would be retained and resurfaced. The Alhambra Lane driveway would be retained to allow egress for people parking in this area.

The Alhambra Lane egress driveway would remain unchanged at its existing grade, due to site constraints and the location of private residences adjacent to the lane. The proposed auto circle would also be at existing grade. The existing parking lot would be lowered approximately seven feet to the same level as the existing sanctuary, at an elevation of 618 feet. The project would require removal of 278 cubic yards of soil (cut material), 123 cubic yards of fill material, requiring the export of 155 cubic yards of cut material.¹ The new lane leading from the proposed vehicular bridge to the proposed auto circle would be filled closest to the auto circle just north of Alhambra Court, in order to meet the grade of the proposed auto circle. The grading plan is shown in Figure 3-12. No public circulation is currently proposed for Alhambra Court, which is a privately-maintained private access easement.

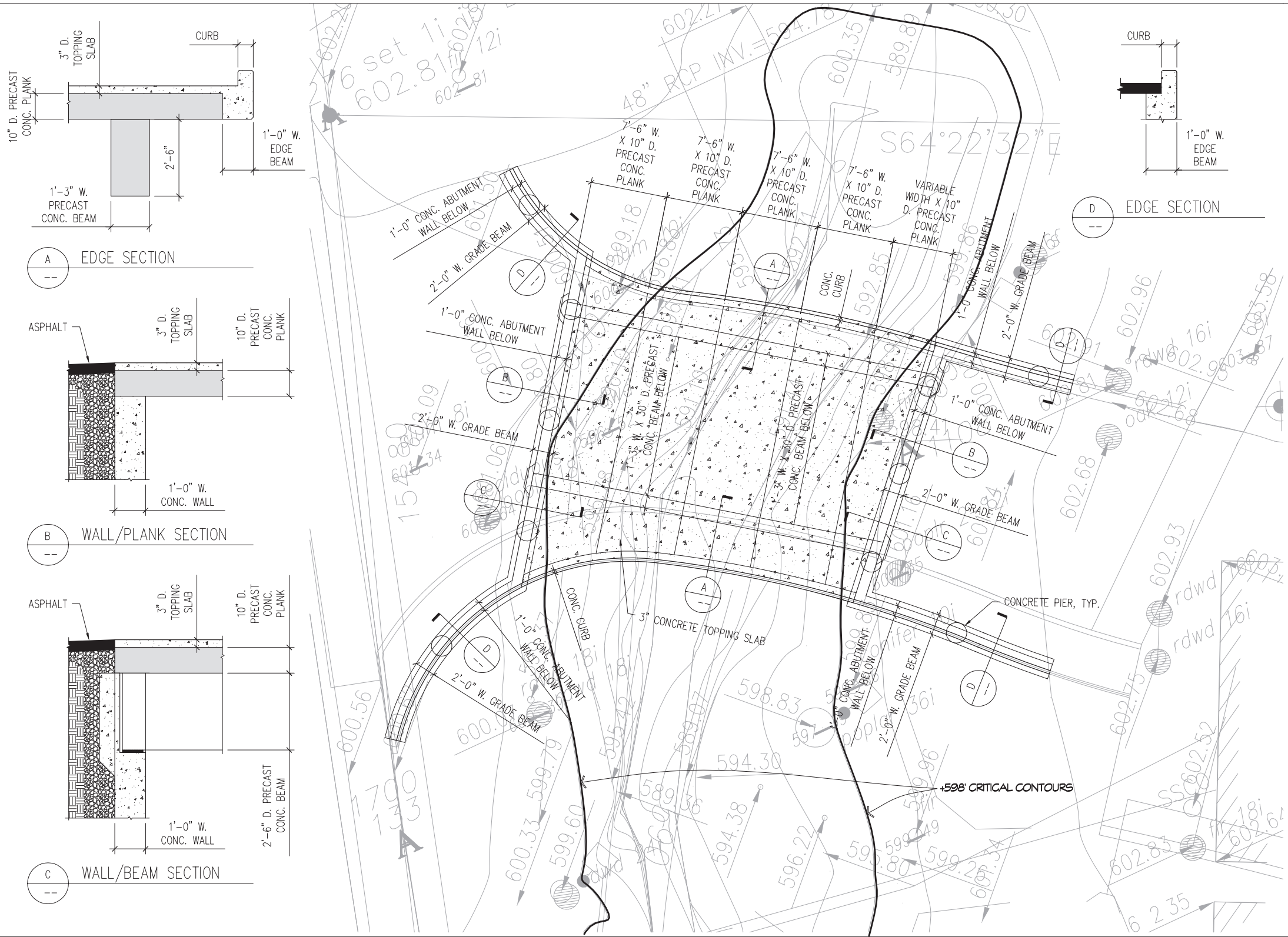
In order to reduce the effect of adding increased impervious surfaces to the site, a variety of features would be incorporated to reduce the amount of stormwater runoff within the project site. The project would include the use of gravel paved parking stalls along the new entry road to allow for stabilization and water detention underneath the parking stalls to handle peak runoff and allow water to percolate on-site and not into the creek. The incorporation of this component would reduce pollutants entering the creek. The project does not propose the construction of drainage pipes to carry stormwater runoff to Temescal Creek.

¹ Rebecca Rothman, Sandis Engineers, email communication with DC&E, June 4, 2010.



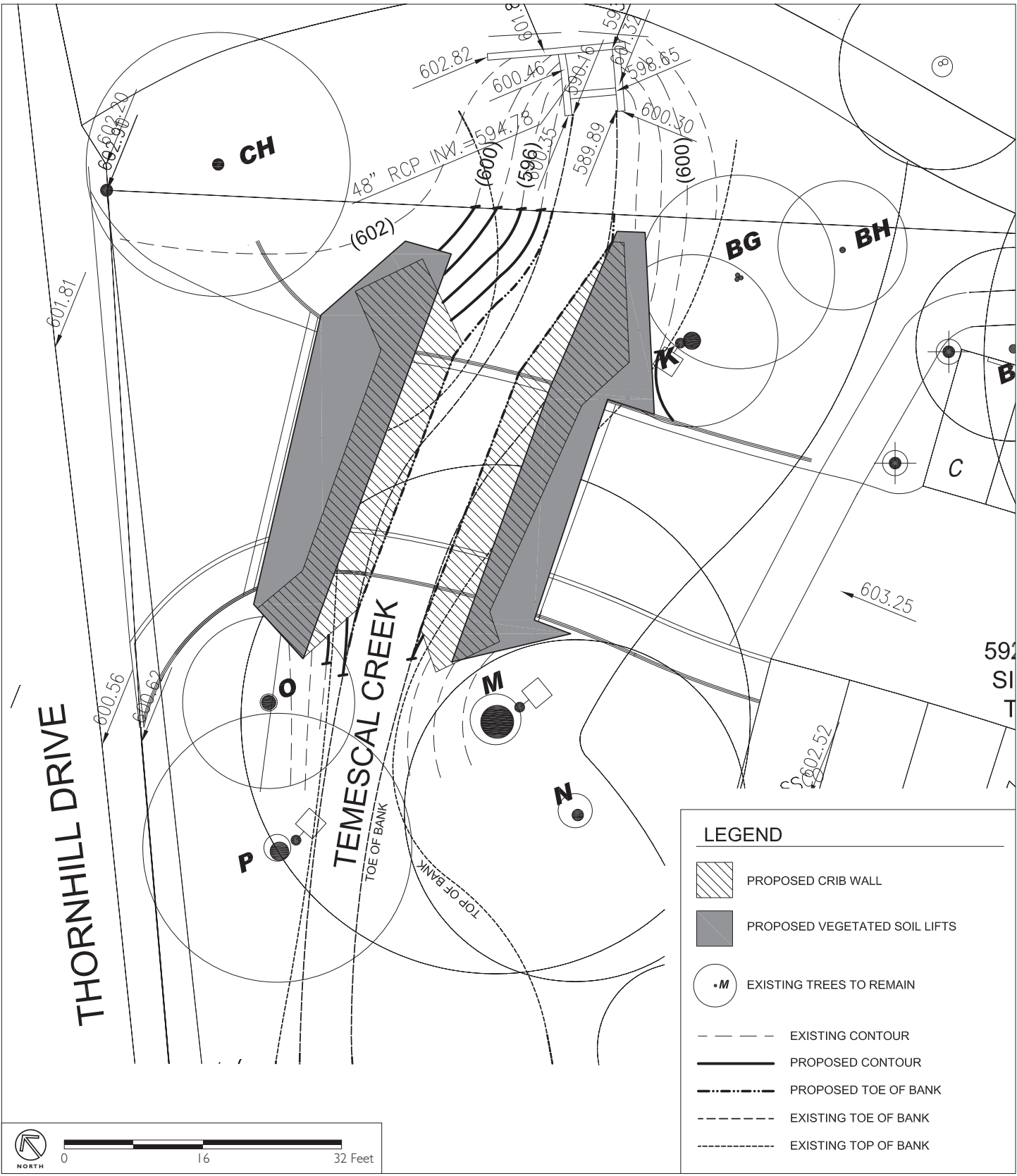
Source: PGAdesign, Inc., Tumbull Griffin & Haesloop, Fratessa Forbes Wong.

FIGURE 3-8
BRIDGE CONCEPTUAL ELEVATIONS



Source: PGAdesign, Inc., Turnbull Griffin & Haesloop, Fratessa Forbes Wong.

FIGURE 3-9
BRIDGE CONCEPTUAL STRUCTURAL PLAN



Source: DC&E, 2010.

FIGURE 3-10
BANK TREATMENTS

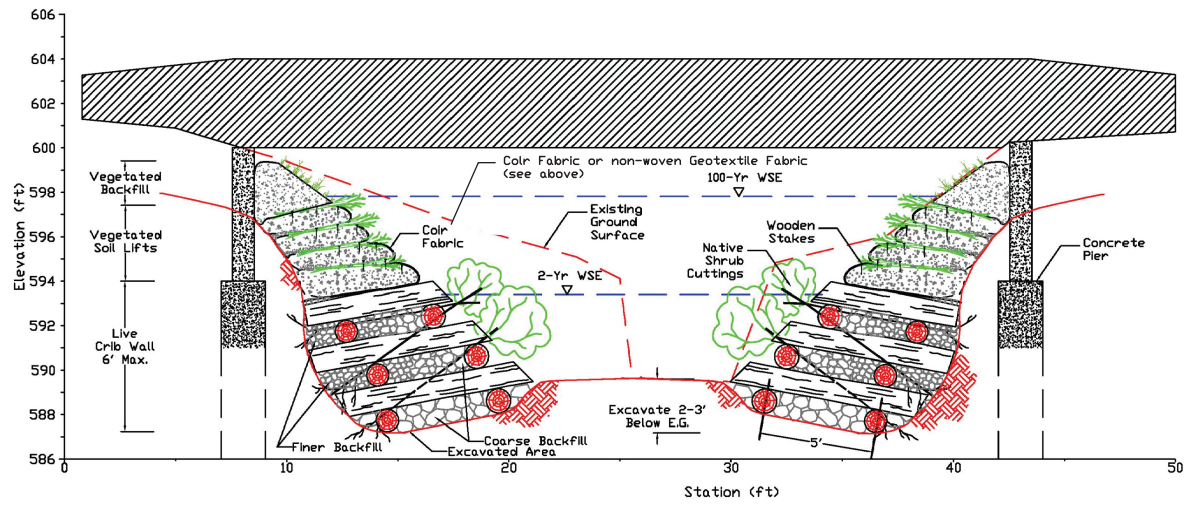
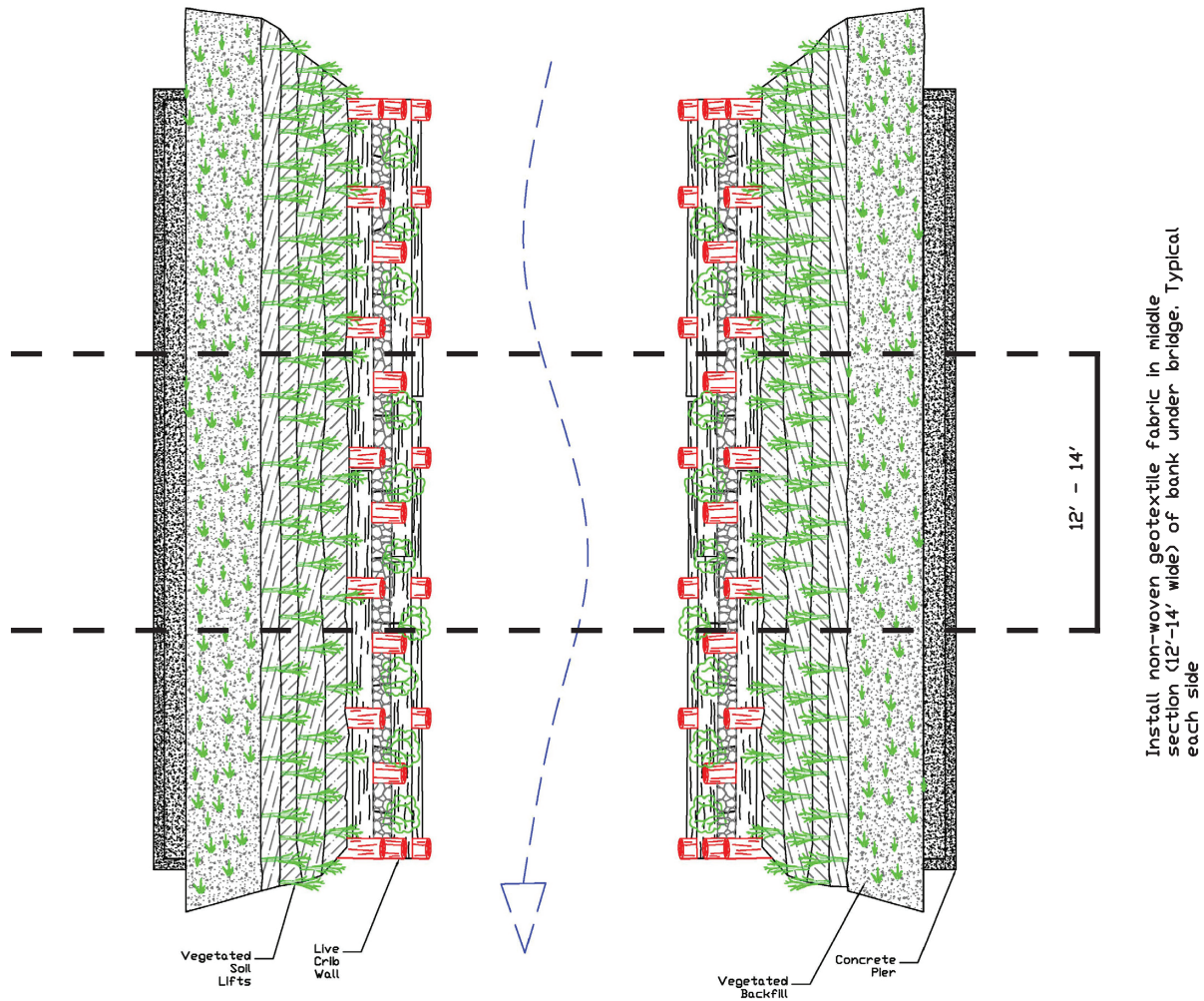
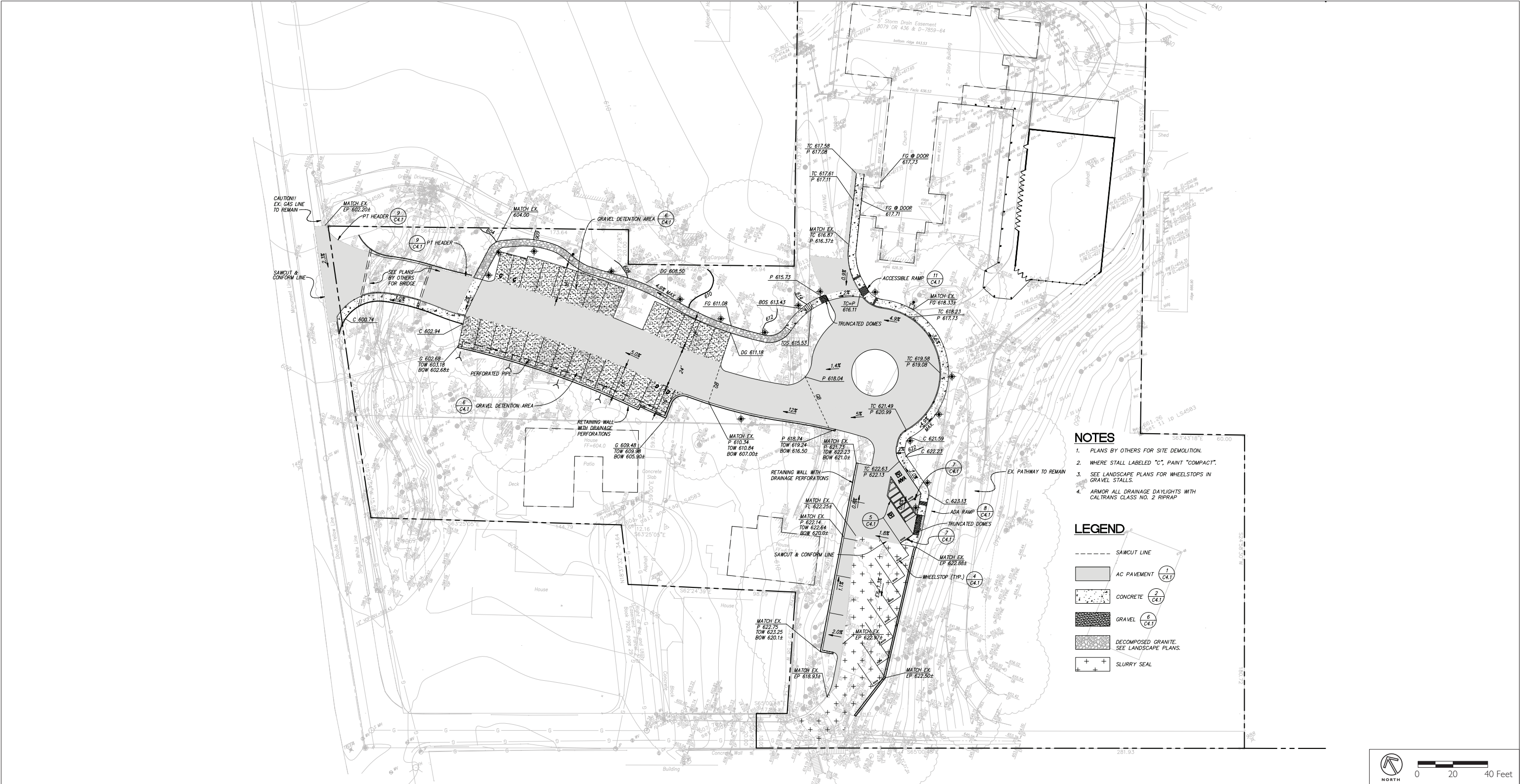


FIGURE 3-11

CONCEPTUAL DESIGN OF BIOENGINEERING TREATMENT AT BRIDGE LOCATION



Source: PGAdesign, Inc., Tumbull Griffin & Haesloop, Fratessa Forbes Wong.

FIGURE 3-12
GRADING, DRAINAGE AND PAVING PLAN

The number of parking spaces would be reduced from approximately 56 existing spaces including one ADA space, to 41 spaces including two ADA spaces. The parking space dimensions aisle widths and space layouts would all be in compliance with the City of Oakland standards and are shown in Figures 3-5 and 3-11.

Phase 1 also includes removal of the parking area along the eastern side of the existing sanctuary building and abandonment of and removal of the Gouldin Road entry lane. This area would be temporarily landscaped until construction of the sanctuary, as described below under Phase 2.

The project proposes removal of 65 trees, 56 of which fall under the City of Oakland tree preservation ordinance. Forty-seven trees would be removed due to poor suitability for preservation. Eighteen trees would be removed due to development impacts. The project would preserve 90 trees within the project site. The Tree Preservation Plan is shown in Figure 3-13. Trees proposed for removal would be replaced with native species, and non-native parking orchard trees and accent vegetation. A complete list of trees to be removed and preserved is included in Chapter 4.2, Biological Resources, in Table 4.2-1 and Table 4-2-2, respectively. Figure 3-14 shows the planting plan for the project which incorporates recommendations of the Tree Report (Appendix F). The Tree Report sets forth conditions to protect preserved trees and ensure long-term health of species within the project site. Trees to be planted include six species of large-canopied trees, one species of coniferous evergreen tree, two species of trees for use in the parking area, and three species of accent shrubs.

2. Phase 2

Phase 2 of the project would entail construction of a new one-story sanctuary building between 5,000 and 5,500 square feet at the location of the current Gouldin Road entrance to the Church. Conceptual plans for the new sanctuary call for a 33-foot-high structure and a cupola. Figure 3-15 shows a conceptual floor plan for the proposed sanctuary. Figures 3-16 and 3-17 show west and east section views of the new sanctuary. The section views do not show the proposed sanctuary in relation to the existing topography or represent the

potential view of the building from Gouldin Road. The new sanctuary would be constructed of wood, stucco and composition roof material, to match the style and materials of the existing sanctuary building. As part of this phase, the patio between the existing sanctuary building and the new sanctuary would be renovated and expanded. Upon completion of the new sanctuary building, the existing sanctuary building would be converted into a community hall and fellowship space. Both buildings would be in use only when adults are using one building and children (non-drivers) are using the other building. Because a more specific timeline for Phase 2 is contingent upon completion of Phase 1 and procurement of additional construction funds, the construction start date cannot be determined at this time.

E. Project Objectives

The major objectives of the project are to:

- ◆ Construct a new sanctuary for St. John's Episcopal Church, with functional connectivity between new sanctuary and old sanctuary (to be used as community hall/fellowship space).
- ◆ Provide safer ingress and egress for emergency vehicles, St. John's parishioners, and parents of Thornhill School children by constructing a bridge that would direct traffic to the improved St. John's parking lot.
- ◆ Improve traffic conditions along Alhambra Lane and Gouldin Road.
- ◆ Provide ADA compliant facilities.

F. Required Permits and Approvals

The proposed project would require the following approvals from the City of Oakland prior to construction. This EIR is intended as the environmental document for all of these actions, and any other approvals that may be required:

THE FOLLOWING ARE PROTECTED TREES
ACCORDING TO TREE PRESERVATION ORDINANCE
(12.36 O.M.C.)

- A. ANY COAST LIVE OAK THAT IS LARGER THAN 4 INCHES DBH.
B. ANY TREE (EXCEPT EUCALYPTUS) THAT IS LARGER THAN 9 INCHES DBH (EUCALYPTUS TREE AND UP TO 5 MONTERREY PINES PER ACRE ARE NOT CONSIDERED PROTECTED TREES UNDER THIS SECTION.
C. ANY TREE OF ANY SIZE LOCATED IN THE PUBLIC RIGHT-OF-WAY (INCLUDING STREET TREES).

LEGEND

- EXISTING TREE SHOWN WITH APPROXIMATE CANOPY; TO REMAIN AND BE PROTECTED DURING CONSTRUCTION
- TREE TO BE REMOVED, REMOVE TRUNK TO 2' BELOW FINISH GRADE
- LIMIT OF WORK/PHASE 1
- 10' OR 30' OFF-SET FROM LIMIT OF WORK

SEE SHEET 00-3B FOR TREE LISTS.

DASHED RED LINES SHOW PROPOSED PLAN LAYOUT

CONTOURS ARE DIAGRAMATIC, REFER TO SPOT GRADES FOR EXACT SURVEYED ELEVATIONS.

TREE PRESERVATION ZONES

TREE PROTECTION ZONE SHALL BE ESTABLISHED AROUND EACH TREE. NO GRADING, EXCAVATION, CONSTRUCTION, OR STORAGE OF MATERIALS SHALL OCCUR WITHIN THE TREE PROTECTION ZONE, EXCEPT AS NOTED ABOVE FOR CERTAIN IMPROVEMENTS (EG. WALKWAYS, FINE HAND GRADING, LANDSCAPING, AND IRRIGATION). NO UNDERGROUND SERVICES INCLUDING UTILITIES, SUB-DRAINS, WATER OR SEWER SHALL BE PLACED IN THE TREE PROTECTION ZONE, EXCEPT AS APPROVED FOR SELECTED UTILITIES. SPOIL FROM TRENCH, FOOTING, UTILITY OR OTHER EXCAVATION SHALL NOT BE PLACED WITHIN THE TREE PROTECTION ZONE, EITHER TEMPORARILY OR PERMANENTLY. THE LIMITS OF THE TREE PROTECTION ZONE WILL BE ADJUSTED FOLLOWING DESIGN CHANGES. THE TREE PROTECTION ZONES SHALL BE DEFINED AS FOLLOWS.

- a. #M, N, P, BE, BG, BH, BL, DB, DC, DF, DG, DH, DO-- DRIPLINE ON ALL SIDES.
b. #A, B, C--EDGE OF EXISTING PLANTER. AFTER DEMOLITION EXPAND FENCE TO EDGE OF NEW PLANTER.
c. #D--10' EAST, 20' NORTH AND SOUTH.
d. #E--20' WEST, 17' EAST, 10' SOUTH, 13' NORTH TO FENCE.
e. #F--20' WEST AND EAST, 15' SOUTH, FENCE ON NORTH.
f. #H--20' WEST, EAST AND SOUTH, 8' NORTH TO FENCE.
g. #I, BW, BX--EDGE OF EXISTING PAVING ON EAST.
h. #J--30' WEST AND EAST, 9' SOUTH, FENCE ON NORTH.
i. #K--20' WEST AND EAST, 10' SOUTH, 13' TO PROPERTY LINE ON NORTH.
j. #L--20' ON WEST, EAST AND NORTH; FENCE ON SOUTH.
k. #O--10' NORTH AND DRIPLINE ON ALL OTHER SIDES.
l. #Q--15' NORTH OF EXISTING FENCE.
m. #T, U, V, BR, CD, CE, OF, OG--PROPERTY LINE ON NORTH.
n. #X, BD--20' ON ALL SIDES.
o. #AA, AC, AF, AG, AI, AJ, AK, AN, AR, CA, CL, CM, CN, CP, CO, CT, CU, CV, CW, CZ--EDGE OF EXISTING PAVING ON WEST AND NORTH.
p. #AL-- EXISTING FENCE ON SOUTH.
q. #AO, AP, AT, BK--EDGE OF EXISTING PAVING ON EAST, SOUTH AND NORTH.
r. #AU, AV, AW, DA-- NO TREE PROTECTION REQUIRED.
s. #AY, AZ, BB, DD, DE, DI-- DRIPLINE OR EDGE OF PROPOSED PAVING.
t. #AX--DRIPLINE ON SOUTH.
u. #BI, BJ--NEW PATHWAY ON SOUTH, DRIPLINE ON ALL OTHER SIDES.
v. #BV--10' SOUTH AND EDGE OF NEW WALKWAY ON WEST.
w. #BY--3' SOUTH, DRIPLINE ON ALL OTHER SIDES.
x. #CH--15' WEST AND EAST, 10' NORTH AND SOUTH.
y. #CI--NORTH EDGE OF THE EXISTING GRAVEL DRIVEWAY.
z. #DJ, DK, DL, DM, DN--EXISTING RETAINING WALL ON WEST.
aa. #DP--23' WEST, 8' EAST, 20' NORTH AND 10' SOUTH.

NOTE: DURING DEMOLITION AND CONSTRUCTION TREE PROTECTION ZONES MAY NEED TO BE TEMPORARILY MODIFIED TO ACCOMMODATE CONSTRUCTION ACTIVITIES. WHERE TREES ARE CLUSTERED TOGETHER CREATE ONE CONTINUOUS TREE PROTECTION ZONE. THIS WILL IMPROVE TREE PROTECTION BY ELIMINATING CUT THROUGH TRAFFIC BETWEEN TREES, AND WILL BE LESS EXPENSIVE THEN INDIVIDUALLY FENCING EACH TREE.

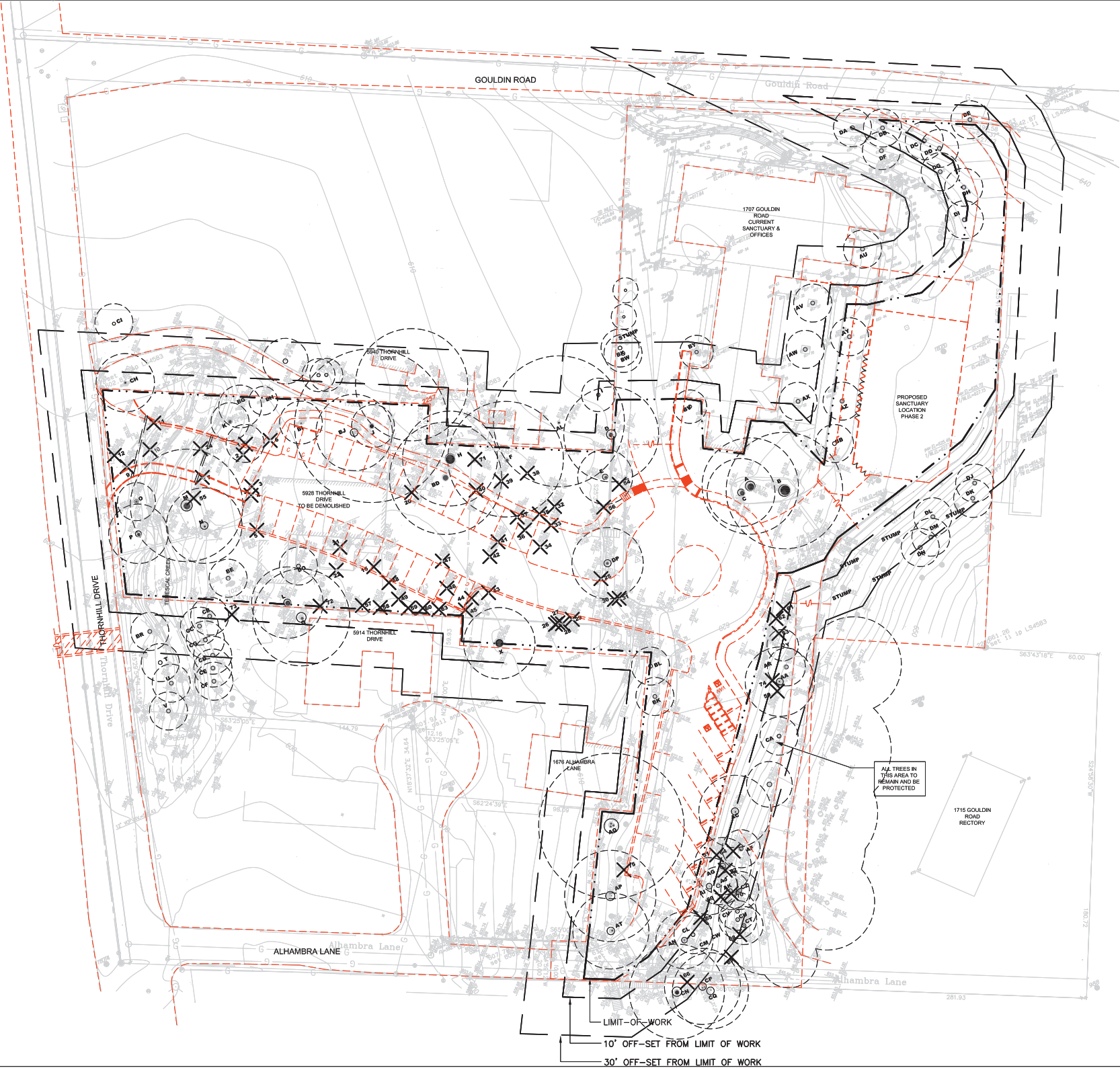
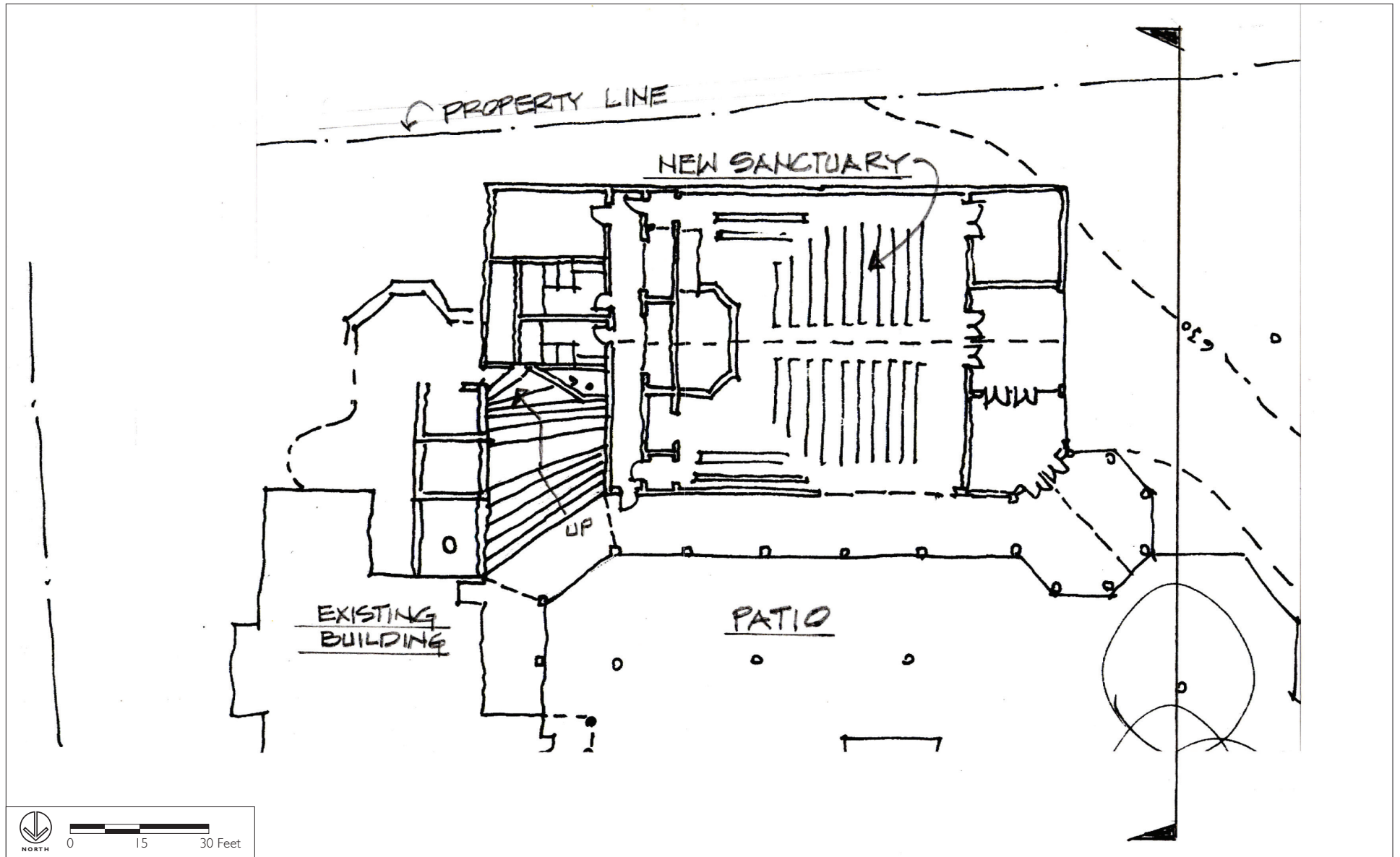


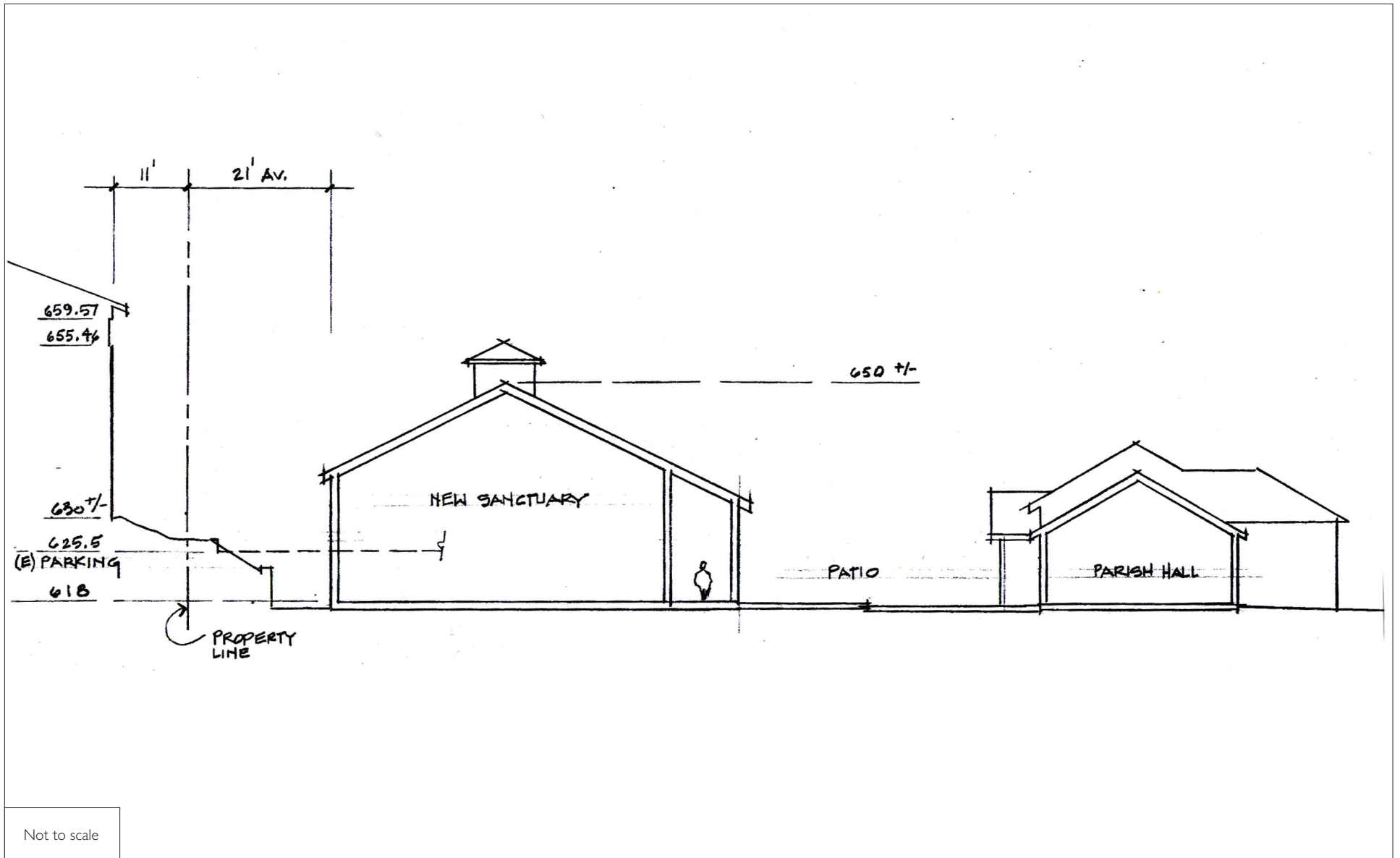


FIGURE 3-14
PLANTING PLAN



Source: Turnbull, Griffin & Haesloop Architects

FIGURE 3-15
PHASE 2 SANCTUARY CONCEPTUAL PLAN - FLOOR PLAN



Source: Turnbull, Griffin & Haesloop Architects

FIGURE 3-16

PHASE 2 SANCTUARY CONCEPTUAL PLAN - WEST SECTION



Source: Turnbull, Griffin & Haesloop Architects

FIGURE 3-17

PHASE 2 SANCTUARY CONCEPTUAL PLAN - EAST SECTION

City of Oakland

- ◆ City of Oakland Conditional Use Permit
- ◆ City of Oakland Protected Trees Ordinance Permit
- ◆ City of Oakland Creek Protection Permit
- ◆ City of Oakland Regular Design Review
- ◆ Tentative Parcel Map

Other Agency Approvals

- ◆ Section 10 of Rivers and Harbors Act of 1899, U.S. Army Corps of Engineers
- ◆ Section 401 of U.S. Clean Water Act permit, Regional Water Quality Control Board
- ◆ Section 404 of U.S. Clean Water Act permit, U.S. Army Corps of Engineers
- ◆ California Department of Fish and Game Streambed Alteration Process Approval

4 ENVIRONMENTAL EVALUATION

A. *Format of Environmental Evaluation*

This chapter consists of four sections that evaluate the environmental impacts of the proposed project, including Aesthetics, Biological Resources, Hydrology and Water Quality, and Traffic and Circulation. Each section follows the same format and consists of the following subsections:

- ◆ The *Regulatory Setting* section describes which local, State and/or federal regulations are applicable to the proposed project.
- ◆ The *Existing Setting* section describes current conditions with regard to the environmental factor reviewed.
- ◆ The *Thresholds of Significance* section tells how an impact is judged to be significant in this EIR.
- ◆ The *Impact Discussion* gives an overview of potential impacts, and tells why impacts were found to be significant or less-than-significant, and identifies Standard Conditions of Approval and/or mitigation measures that would reduce/eliminate each impact.
- ◆ The *Cumulative Impacts* section analyzes impacts that the proposed project may have when considered in addition to other past, present, and reasonably foreseeable projects.

In Sections 4.1 through 4.4, each numbered impact is considered significant prior to mitigation, unless it is specifically identified as less than significant.

Standard Conditions of Approval and mitigation measures have been recommended that will reduce significant impacts to less-than-significant levels. Impacts would be less than significant after mitigation unless they are noted as significant and unavoidable in the text.

B. *Cumulative Impact Analysis*

Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is “cumulatively con-

siderable.” CEQA Guidelines Section 15065(a)(3) defines a project’s effects as “cumulatively considerable” when those effects are significant in connection with the effects of past projects, other current projects, and probable future projects.

Where the incremental effect of a project is not “cumulatively considerable,” a Lead Agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. Where the cumulative impact caused by the project’s incremental effect and the effects of other projects is not significant, the EIR must briefly indicate why the cumulative impact is not significant. The results of the cumulative impact analysis are presented in each Impact Discussion section in Sections 4.1 through 4.4.

Section 15130(b) states that “the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.”

The CEQA Guidelines provide two approaches to analyzing cumulative impacts. The first is the “list approach,” which requires a listing of past, present and reasonably anticipated future projects producing related or cumulative impacts. The second is the summary approach wherein the relevant projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area-wide conditions are summarized. A reasonable combination of the two approaches may also be used.

The cumulative analysis of this EIR is consistent with Section 15130(b)(1) of the CEQA Guidelines as it is based on both a list of past, present and probable future development projects in the area (short-term cumulative development), and a summary of development projections (long-term cumulative development). Cumulative impacts would most likely result from short-term and long-term

development in the immediate vicinity of the project. Where appropriate, this EIR assesses the short-term and long-term cumulative impacts that would result from the project plus other projected development throughout the City of Oakland. The following sections review the anticipated short-term and long-term development in the project vicinity and throughout the city.

CITY OF OAKLAND
ST. JOHN'S CHURCH PROJECT DRAFT EIR
ENVIRONMENTAL EVALUATION

4.1 AESTHETICS

This section discusses existing visual setting of the proposed St. Johns Church project site, the standards of significance used to determine visual and design impacts, and an analysis of the effects the proposed project would have on views and aesthetics in the project vicinity.

A. Regulatory Setting

This section includes a discussion of planning policies and ordinance requirements that are relevant to the proposed project.

1. City of Oakland General Plan

a. Open Space, Conservation and Recreation Element

The Oakland General Plan Open Space, Conservation and Recreation Element, adopted in October 1995, is “the official policy document addressing the management of open land, natural resources, and parks in Oakland.” The element contains the following objectives and policies aimed at protecting scenic views and biological resources and are applicable to the Project.

Policy OS1.3: Relate New Development to Slope

Limit intensive urban development to areas where the predominant slope is less than 15 percent. Design development on slopes between 15 and 30 percent to minimize alteration of natural landforms. Strongly discourage development on slopes greater than 30 percent. To the extent permitted by law, when land is subdivided into two or more lots, retain areas with slopes over 30 percent as private, public, or common open space.

The proposed project would involve redevelopment of currently developed parcels with grades ranging from 3 to 26 percent. The proposed sanctuary would be developed on a portion of the site with a slope of between 3 and 5 percent, adjacent to the existing meeting hall, thereby concentrating the developed portion of the site to one area. No development is proposed on slopes over 30 percent.

Policy OS3.1: University, College, and Institutional Open Space

Retain open space at Oakland's universities, colleges, and other institutions where such open space provides recreational, aesthetic, conservation, or historic benefits. Where such spaces are publicly owned, as at the community colleges, support the permanent retention of athletic fields and other recreational areas as open space. Such areas should not be converted to development unless they are replaced in kind with comparable areas or facilities in the immediate vicinity.

Although the Church is not a publically owned institution, it provides quasi-public access to its meditation garden, which would be expanded at the time the Phase 2 sanctuary is constructed.

Policy OS4.2: Protection of Residential Yards

Recognize the value of residential yards as a component of the City's open space system and discourage excessive coverage of such areas by buildings or impervious surfaces.

The proposed project includes demolition of one home, and conversion of the yard to parking.

Policy OS10.2: Minimizing Adverse Visual Impacts

Encourage site planning for new development which minimizes adverse visual impacts and takes advantage of opportunities for new vistas and scenic enhancement.

As discussed above, the new sanctuary would be constructed to relate to the existing slope of the project site, and would be located adjacent to the existing church building. By locating the proposed sanctuary adjacent to the existing church building and at the grade of the existing parking lot, the bulk and mass of the proposed sanctuary would be minimized. As discussed below in response to criteria 1, the proposed project does not impact scenic vistas nor is the project site a component of a larger scenic vista as viewed from the surrounding area. Because the project site is located within a wooded, residential

neighborhood with limited, short-range views to and from the site, the project would minimize adverse visual impacts.

b. Scenic Highways Element

The Oakland Scenic Highways Element “addresses itself to the preservation and enhancement of those distinctively attractive roadways that traverse the city and the visual corridors which surround them.”¹ The element contains the following policies aimed at protecting scenic corridors and are applicable to the Project.

- ◆ **Policy 3.** Urban development should be related sensitively to the natural setting.
- ◆ **Policy 4.** High standards for preserving and enhancing natural landforms and vegetation should be established and maintained to regulate all activities related to earth work and the removal of trees, shrubs or ground cover.

The closest freeway, to the project area is California State Route 13, however the project is not visible from this roadway.

2. City of Oakland Planning Code Design Review Criteria

Chapter 17.136.050 of the Planning Code establishes the criteria for design review of proposed projects within the City of Oakland. This section states that a project involving a non-residential facility will only receive design review approval if it “conforms to all of the following criteria, as well as to any and all other applicable design review criteria:”

- a. That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk, height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other facilities in the vicinity;

¹ City of Oakland General Plan, Scenic Highways Element, page 1.

and the relation of the proposal to the total setting as seen from key points in the surrounding area.

- b. That the proposed design will be of a quality and character which harmonizes with, and serves to protect the value of, private and public investments in the area.
- c. That the proposed design conforms in all significant respects with the Oakland General Plan and with any applicable design review guidelines or criteria, district plan, or development control map which have been adopted by the Planning Commission or City Council.

As discussed in this section, construction of both phases of this project does not result in aesthetic impacts, and the conceptual site plan and design appear to be consistent with the purposes and intent of the design review criteria.

3. City of Oakland Outdoor Lighting Standards

The City adopted Outdoor Lighting Standards in December 2002 in order to prevent glare and light pollution, encourage energy efficiency, and improve safety. These standards include measures such as the use of shields to direct light and eliminate glare for drivers; less-powerful Light Emitting Diode (LED) up-lights; and photocells and time switches to control outdoor lights. The standards also prohibit “[t]he use of decorative lighting, landscape and building accent lighting, or floodlighting for appearance only.” The Electrical Services Division of the Public Works Agency is responsible for the review and approval of outdoor lighting.

A detailed lighting plan has not been developed at this stage of the project design. The plan will be developed in conformance with the City’s outdoor lighting standards, subject to approval by the Electrical Services Division as noted above.

4. City of Oakland Standard Conditions of Approval

The City of Oakland’s Standard Conditions of Approval will be adopted as requirements of the proposed project and are included, where applicable, in

Section D of this chapter to help ensure that no significant impacts occur as a result of this project.

B. Existing Setting

This section describes the physical setting of the proposed project. CEQA requires analysis of public viewsheds and does not require consideration of private views.

1. Form and Appearance of the Project Site

The project site is comprised of five parcels that contain four single-family homes and one church facility. The project site is characterized by substantial tree cover consisting of mature Coast Redwood, Live Oak, Douglas Fir, Giant Redwood trees, and fruit trees.

2. Form and Appearance of the Surrounding Area

a. Area North of the Project Site

Single-family homes are located north of the project site, across Gouldin Road. The residential neighborhood to the north is comprised of one- and two-story hillside homes within substantial tree cover.

b. Area South of the Project Site

The area south of the project site contains a small pocket of single-family homes and Thornhill Elementary School.

c. Area East of the Project Site

Single-family homes are located east of the project site. The residential neighborhood to the east is comprised of one- and two-story homes built on steep grades, and under substantial tree cover.

d. Area West of the Project Site

Single-family homes are located west of the project site on steep grades. The residential neighborhood to the west is comprised of one- and two-story

homes built into the hillside under substantial tree cover (Forest Park neighborhood).

3. Views of the Project Site

The most prominent public views of the project site are looking southeast from Thornhill Drive, shown in Figure 4.1-1, and looking southwest from Gouldin Road, shown in Figure 4.1-2. Views from Thornhill Drive are limited by heavy vegetation and mature trees along Temescal Creek. Additionally, a single-family residence within the project site currently limits views into the project site. Thus, expansive views of the project site are not possible from Thornhill Drive. Other views of the project site are limited by hilly terrain, mature vegetation, and existing private residences.

4. Views From and Across the Project Site

Expansive views from the project site are limited due to the site's dense vegetation. Views from the eastern and western edges of the project site are generally obstructed by vegetation. From the northern boundary of the project site, views consist of homes along Gouldin Road, though trees and vegetation largely obscure direct views. Looking towards the south from the southern edge of the project site, there are distant views of the surrounding wooded hillsides and Thornhill Elementary School. Views west of the project site from the western edge of the project site are limited by private residences.

5. State Scenic Highways

There are no officially designated State scenic highways in the vicinity of the project site according to the California Department of Transportation.²

² California Department of Transportation. Officially Designated State Scenic Highways. http://www.dot.ca.gov/hq/LandArch/scenic_highways/. Accessed on June 5, 2008.



FIGURE 4.1-1

EXISTING VIEW OF SITE FROM THORNHILL DRIVE



FIGURE 4.1-2
EXISTING VIEW OF SITE FROM GOULDIN ROAD

C. Thresholds of Significance

The proposed project would have a significant impact related to aesthetics if it would:

1. Have a substantial adverse effect on a scenic vista. [NOTE: Only impacts to scenic views enjoyed by members of the public generally (but not private views) are potentially significant.]
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state or locally designated scenic highway.
3. Substantially degrade the existing visual character or quality of the site and its surroundings.
4. Create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area.
5. Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code Section 25980-25986).
6. Cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors.
7. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space.
8. Cast shadow on an historic resource, as defined by CEQA Section 15064.5(a) such that the shadow would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance and that justify its inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, Local register of historical resources, or a historical resource survey form (DPR Form 523) with a rating of 1-5.

9. Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses.

D. Impact, Standard Conditions of Approval and Mitigation Measure Discussion

This section discusses the impacts of the proposed project on the visual quality of the surrounding area, including impacts arising from the proposed project's height and massing and its visual and urban design compatibility with the surrounding area. The cumulative impacts of this project are discussed in subsection E of this chapter.

1. Have a substantial adverse effect on a scenic vista.

The proposed project would result in aesthetic changes with regard to views of the project site, removal of trees within the project site, and the construction of a new building. Public views of the project site are limited to views of the project site from Thornhill Drive and Gouldin Road, as shown in Figures 4.1-1 and 4.1-2, respectively. The view from Gouldin Road is from an elevation above the project site, and looks down to the existing parking lot and church building. The view from Thornhill Drive is characterized by limited and short-range views into the project site. There are no scenic vistas from the site nor is the project site a component of a larger scenic vista as viewed from the surrounding area.

Trees proposed for removal would constitute a physical change within the project site, however, as discussed below, the proposed project will preserve and enhance natural vegetation through the implementation of planting plan (Figure 3-13).

Construction of the proposed sanctuary would result in a change to the building massing on the project site. However, the project design complies with

applicable Planning Code Design Review Criteria in that the buildings would be grouped on one portion of the site and would be designed in a compatible scale and architectural style, resulting in a well-composed design.

Although the project would result in changes to aesthetic resources within the project site, the project would not have a substantial adverse effect on a scenic vista. Therefore, the proposed project would result in a *less-than-significant* impact to aesthetic resources.

2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state or locally designated scenic highway.

Although compliant with the City of Oakland Scenic Highways Element, the project site is not located within the vicinity of a state or locally designated scenic highway.

The Project represents an intensification of urban development on the project site, however, with the incorporation of design features including extensive tree plantings, use of pervious materials in the proposed parking lot and sensitive placement of the Phase 2 sanctuary adjacent to the existing developed portion of the site, the overall intensification of uses does not adversely impact the site character, or character of the neighborhood. While the proposed bridge will require removal of trees and vegetation and increase shading of Temescal Creek, the bridge design and proposed bank stabilization and landscaping were designed to recognize the sensitivity of the creek and enhance the natural setting to the extent feasible.

Although located in a heavily wooded, hilly neighborhood in Oakland, which allows for far field views within the hillsides, the project site is primarily shielded from view on Thornhill Drive due to the heavy vegetation. Construction of the bridge would open up views of the site, at least until the newly-planted trees mature; however, the views would be filtered by retained vegetation, and would not be considered to damage scenic resources.

The proposed project will preserve and enhance natural vegetation through the implementation of the grading, drainage and paving plan (Figure 3-12), and planting plan, (Figure 3-14). The plans will be implemented through the adherence to Best Management Practices and City of Oakland Standard Conditions of Approval to reduce impacts related to construction and operation, as discussed in Chapters 4.2 and 4.3 of this EIR. As a result, there would be a *less-than-significant* impact.

3. Substantially degrade the existing visual character or quality of the site and its surroundings.

Although the project would alter the visual character of the site and surroundings, the changes would not be significant because the site is currently developed with a sanctuary building and paved parking area. As shown on Figures 4.1-3 and 4.1-4, which represent the most open views of the site, the height, bulk, and overall massing of the proposed sanctuary, bridge, and parking area would not overwhelm or degrade the visual character of the project site. The project would comply with the City of Oakland Planning Code Design Review Criteria.

The Project proposes construction of a new sanctuary adjacent to the location of the current meeting hall of the church in order to maintain the synergistic grouping of buildings. As shown in the conceptual designs in Figures, 3-16, and 3-17, the proposed sanctuary will be scaled to be compatible with the existing structures on the site, and the home to the southeast. The relative location of the proposed sanctuary below the elevation of Gouldin Road also serves to reduce the visual mass of the building.

Construction of the bridge and the access lane would require removal of 47 trees³ which will increase the visibility to and from that section of Thornhill Drive and adjoining properties, as shown in Figure 4.1-3. However, landscaping with native species (discussed in Section 4.2 of this EIR), would improve the visual character of the creek. With the removal of trees along the creek to

³ HortScience, Inc., Tree Report, March 2009, Table 3, pages 8-9 and Tree Preservation Plan, as prepared by PGA Design. (Included in Appendix F of this EIR.)



FIGURE 4.1-3

PHASE I - SIMULATED VIEW OF SITE FROM THORNHILL DRIVE



FIGURE 4.1-4

PHASE 2 - SIMULATED VIEW OF SITE FROM GOULDIN ROAD

accommodate the proposed bridge, a portion of the creek would be open to more filtered sunlight. Diagrams showing the existing shading and shading resulting from the project are included in the Biological Resources chapter (Figures 4.2-2 and 4.2-3) to show how the removal of trees along the creek would augment the shading of the area. Although the parking lane would be partially visible from Thornhill Drive, existing vegetation, new plantings and landscaping, and use of crushed granite would provide visual relief that would soften the view. In addition, because significant native redwood and oak trees would be retained, the view would be filtered. As a result, a *less-than-significant* impact would occur.

4. Create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area.

The design for the placement and type of lighting for Phase 1 and Phase 2 shall conform to Standard Condition of Approval AES-1, listed below. With the incorporation of these measures, lighting and glare will be reduced to a *less-than-significant* impact.

Standard Condition of Approval AES-1: Lighting Plan. *Prior to the issuance of an electrical or building permit.* The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans shall be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. All lighting shall be architecturally integrated into the site.

5. Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code Section 25980-25986).

Currently there are no solar collectors on the existing sanctuary or office buildings, nor are collectors located on any residences adjoining the project site. Most of the residences are in heavily shaded areas with filtered solar access. In addition, the areas designated for new trees are oriented to the center of the project site away from adjoining residences, as shown in Figure 3-5, to shade the parking area. Therefore, a *less-than-significant* impact would occur.

6. Cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors.

As noted in response to criteria 5), there are no buildings on or adjoining the site that use passive solar heat collection, solar collectors, hot water heating or photovoltaic solar collectors; therefore, the project would not be able to cast shadows that would impair the function of these facilities. Therefore, a *less than significant* impact would occur.

7. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space.

As shown in Figure 4.1-4, the church meditation garden, located in front of the sanctuary building, would be retained. While the new building would cast shadows on the garden in the late afternoon, it would not impair the use of the garden by the community. Furthermore, by locating proposed sanctuary close to the grade of the existing parking lot, the bulk and mass of the building would be minimized. The proposed bridge would cast shadows over the existing creek. However, as discussed in response to criteria 7 of this chapter, and Section E., Cumulative Impacts of Chapter 4.2, Biological Resources, a *less-than-significant* impact would occur.

8. Cast shadow on an historic resource, as defined by CEQA Section 15064.5(a) such that the shadow would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance and that justify its inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, Local register of historical resources, or a historical resource survey form (DPR Form 523) with a rating of 1-5.

There are no historic buildings on the project site, therefore, *no impact* would occur.

9. Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses.

The project does not require an exception to the policies or regulations listed in the General Plan, Planning Code, or Uniform Building Code, addressing the provision of adequate light. Therefore, *no impact* would occur.

E. Cumulative Impacts

This analysis evaluates whether the impacts of the Proposed Project, together with the impacts of past, present, pending and reasonably foreseeable future development, would result in a cumulatively significant impact on aesthetics (based on the significance criteria and thresholds presented earlier). This analysis then considers whether the incremental contribution of the Proposed Project to this cumulative impact would be considerable. Both conditions must apply in order for a project's cumulative effects to rise to the level of significance.

The geographic context for analysis of cumulative impacts to biological resources in this DEIR encompasses the North Oakland hills, and specifically, the Montclair Village area.

The cumulative analysis considers the effect of the Proposed Project combined with past, present, pending and reasonably foreseeable projects in the defined geographic area. Past projects, i.e., the principal determinant of existing conditions in the area, which are developed and where natural communities have already been disturbed—even where open space persists, have already caused adverse cumulative effects on aesthetic resources. With the addition of current and other proposed projects, there is an existing cumulative impact *without* the Project, which could be considered to combine with the Proposed Project to increase the aggregate effect and be considered cumulatively significant.

However, relative to the CEQA baseline, the impacts of the proposed Project *do not* aggregate to breach the CEQA significance thresholds described elsewhere in the Draft EIR. There are no other reasonably foreseeable projects

of this scope in the area, and, if there are, the cumulative effect on aesthetic resources would be minimized as discussed above and below.

Environmentally protective laws and regulations, have been applied with increasing rigor since the early 1970s and include the City of Oakland General Plan (specifically OSCAR and the Scenic Highway Element), the Planning Code's Design Review requirements, City's lighting standards and Standard Conditions of Approval, as described in section A., Regulatory Setting, earlier in this EIR chapter. The Proposed Project and other future projects within the cumulative geographic context are and would be required to comply with local laws and policies and all applicable permitting requirements of the City intended to address potential aesthetic impacts. Additionally, new projects would be required to demonstrate that they would not have significant effects on aesthetics, although it is possible that some projects may be approved even though they would have significant, unavoidable aesthetics impacts.

The current impact analysis has shown that the Project has the potential for significant impacts on aesthetics and that these impacts can be reduced to less-than-significant levels through the application of the City of Oakland's SCAs.

When considered with impacts of past, present, pending and reasonably foreseeable future projects within the geographic context for this analysis, the minor incremental contribution of the Proposed Project to an already existing cumulative impact is not cumulatively considerable. Therefore, the cumulative effect of the Proposed Project on aesthetics would be *less than significant*.

Specifically, the proposed project would not substantially alter the existing views in the vicinity of the project site. No other projects of similar scope are planned or pending within the vicinity of the project.⁴ Individual residential

⁴ Clevenger, Ann. Personal communication with DC&E, November 9, 2010.

development will occur as allowed by the City of Oakland General Plan and Zoning Ordinance. However, a substantial degradation in visual resources is not anticipated and would not combine with the project to significantly impact. As a result, a *less-than-significant* cumulative impact to visual resources would occur.

CITY OF OAKLAND
ST. JOHN'S CHURCH PROJECT DRAFT EIR
AESTHETICS

4.2 BIOLOGICAL RESOURCES

This section discusses existing biological conditions of the proposed project site, the standards of significance used to determine biological impacts, and an analysis of the effects that the proposed project would have on biological resources. A report describing the biological resources within the project site and in the vicinity of the project site is included in Appendix E of this EIR.

A. Regulatory Setting

This section summarizes the existing local, State and federal laws, policies and regulations that apply to the environmental topic area that are analyzed for the proposed project.

1. Federal Laws and Regulations

a. Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect species that are endangered or threatened to become endangered. The FESA works in concert with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered or threatened species depend.

FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined as the harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing or collecting wildlife species or any attempts to engage in such conduct (16 USC 1532, 50 CFR 17.3).

b. Clean Water Act

The U.S. Army Corps of Engineers (Corps) regulates development on or near jurisdictional bodies of water and wetlands consistent with the Clean Water Act (CWA). The Corps regulates the discharge of dredged or fill material into jurisdictional waters under section 404 of the CWA. The Corps shares enforcement of the Clean Water Act (CWA) with the United States Environmental Protection Agency (EPA). Certification from the California Regional Water Quality Control Board (RWQCB) is also required when a pro-

posed activity may result in discharge into navigable waters, pursuant to Section 401 of the CWA and EPA Section 404(b)(1) Guideline.

2. State Laws and Regulations

The California State regulations applicable to biological resources in the site vicinity include the California Endangered Species Act and the California Department of Fish and Game Code (CDFG). As noted above, the RWQCB is responsible for upholding state water quality standards. Pursuant to Section 401 of the CWA, projects that apply for a Corps permit for discharge of dredge or fill material, and projects that qualify for a Nationwide Permit must obtain water quality certification from the RWQCB.

a. California Endangered Species Act

The State of California enacted the Endangered Species Act (CESA) in 1984. Similar to FESA, CESA pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with the CDFG when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the existence of listed species.

b. Streambed Alteration Agreement Process

The CDFG is responsible for protecting streams and water bodies through the Streambed Alteration Agreement process under Section 1600 of the California Fish and Game Code. Section 1600 of the Fish and Game Code stipulates that it is unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake without notifying the CDFG, incorporating necessary mitigation, and obtaining a Streambed Alteration Agreement.

3. Local Regulations and Policies

a. City of Oakland Protected Tree Ordinance

As set forth by Title 12, Chapter 36 of the City of Oakland Municipal Code, identifies protected trees that require a permit for removal and trees that must be protected from construction impacts. According to the ordinance, a tree permit must be obtained to remove coast live oaks (*Quercus agrifolia*) measuring 4 inches in diameter at breast height (dbh) or to remove any other tree

measuring 9 inches dbh or larger, except Eucalyptus and Monterey Pine (*Pinus radiata*) or if any protected tree on the property might be damaged by construction activity.

b. Creek Protection Ordinance

Chapter 13.16 of the City of Oakland Municipal Code establishes a number of guidelines to protect Oakland's creeks by reducing and controlling storm-water pollution, preserving and enhancing creekside vegetation and wildlife, and controlling erosion and sedimentation. The ordinance includes specific measures applicable to parking lots, gas stations, industrial and commercial activities, as well as to properties that contain creeks. The ordinance includes provisions that address discharge regulations and requirements as well as inspection and enforcement.

4. City of Oakland Standard Conditions of Approval

The City of Oakland's Standard Conditions of Approval will be adopted as requirements of the proposed project and are included, where applicable, in Section D. of this chapter to help ensure that no significant impacts occur as a result of this project.

B. Existing Conditions

This section describes the existing biological and regulatory setting associated with the biological resources on the site. Biological resources associated with the site were identified through a review of available background information and field reconnaissance surveys of the site. Available documentation was reviewed to provide information on general resources in the Montclair area of Oakland, presence of sensitive natural communities, the distribution and habitat requirements of special-status species which have been recorded from or are suspected to occur in the project vicinity, and wildlife habitat values of the site. An initial field reconnaissance survey was conducted on July 27, 2006 to identify existing conditions, presence of any sensitive habitat features or potentially suitable habitat for special-status species, and an assessment of wildlife habitat conditions. Detailed protocol surveys for special-status spe-

cies were not considered necessary to confirm presence or absence because of the extent of past disturbance and development on the site and adjacent lands, the dominance of the creek corridor by non-native invasive species, and the lack of suitable habitat characteristics necessary to support special-status species. A field visit to the site was conducted with staff from the City of Oakland and the Regional Water Quality Control Board on May 28, 2008 during which review and input on the proposed plans at the time were reviewed. Review of the tree survey data from the updated 2009 *Tree Report* by HortSciences¹ was performed during the subsequent field visit.

1. Vegetation and Wildlife Habitat

The site is located in a predominately residential area of Oakland with substantial tree cover, composed primarily on non-native species. Temescal Creek lies on the west side of the project site, with an existing residence and poorly maintained landscaped yard on the south side of the creek, and structures, parking and landscaping around the existing sanctuary and offices. Existing wildlife habitat is typical of suburban areas, with the creek providing a source of surface water during the dry summer and fall months and is most likely attracts terrestrial wildlife to the site reach and other locations of Temescal Creek that are still accessible. Aquatic habitat values of this reach of the creek are extremely limited given the shallow depth, lack of emergent vegetation, and dense shade overstory to much of the creek channel.

Vegetation along the creek corridor is dominated by native and non-native tree plantings, with an understory of scattered shrubs and open to dense tangle of non-native English ivy (*Hedera helix*), periwinkle (*Vinca major*), and Himalayan blackberry (*Rubus discolor*). English ivy and periwinkle form the dominant ground cover over most of the portion of the site along the creek. With the exception of a few horsetail (*Equisetum* sp.) plants along an unshaded reach of the south bank, native groundcover species are completely absent in the reach on the site because of the dense shade, past disturbance, and competition with the invasive species. Tree species along this reach of

¹ HortScience, 2009, *Tree Report*, St. John's Episcopal Church, Oakland, CA, March 2009.

the creek include a single Fremont cottonwood (*Populus fremontii*), big-leaf maple (*Acer macrophyllum*), coast redwoods (*Sequoia sempervirens*), coast live oaks (*Quercus agrifolia*), wild plums (*Prunus sp.*), Douglas fir (*Pseudotsuga menziesii*), sycamore (*Platanus sp.*), Deodar cedar (*Cedrus deodara*), Monterey pine (*Pinus radiata*), among others. No emergent vegetation or aquatic life was observed in the creek channel itself.

Wildlife use in the site vicinity is generally low because of the lack of protective cover and developed condition in the area. Species typical of urbanized and ruderal habitat occur in the vicinity, including birds and mammals common in the Montclair area of Oakland. Typical species observed or suspected include: house finch, house sparrow, mourning dove, northern mocking bird, pocket gopher, house mouse, Norway rat, and western fence lizard. Raccoon and opossum most likely forage through locations where protective cover is present. Several species of raptors most likely occasionally forage in the remaining natural areas on the hillsides, and may occasionally perch or roost in trees on the site, including Cooper's hawk, red-tailed hawk, and American kestrel. But no signs of any active raptor nesting or other nests were observed during the field reconnaissance surveys. The lack of any groundcover and grassland habitat on the site and immediate vicinity limits the importance of the site as even occasional foraging habitat for raptors. Suitable foraging habitat for burrowing owl is absent, and no evidence of nesting by other species of raptors was observed during the field reconnaissance surveys, and seems unlikely given the intensity of surrounding development. The surface waters of Temescal Creek are most likely an attractive source of drinking water to deer and other terrestrial wildlife common in the area, but no aquatic life was observed within the creek itself, as noted above. The concrete box culvert and drop structure immediately upstream from the site precludes use of the creek channel bottom and banks as a continuous movement corridor for both terrestrial and aquatic species, and Temescal Creek enters a culvert downstream of the site as Alhambra Road, about 80 feet downstream of the St. John's Church reach. Major drop structures and the dam at Lake Temescal preclude this segment of Temescal Creek being used by anadromous (i.e migratory) fish such as steelhead in the future.

2. Special-Status Species

Review of records maintained by the California Natural Diversity Data Base (CNDDB) indicate that a number of special-status plant and animal species have been reported from the surrounding area of Oakland and the Berkeley Hills. Special-status species are plants and animals that are legally protected under the state and/or federal Endangered Species Acts or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts and other essential habitat. Species with legal protection under the Endangered Species Acts often represent major constraints to development, particularly when they are wide ranging or highly sensitive to habitat disturbance and where proposed development would result in a “take” of these species.

Figure 4.2-1 shows the known distribution of sensitive natural communities and special-status plant and animal occurrences within about two miles of the site. No sensitive natural communities recognized by the CNDDB have been reported from the site or occur on the property based on the field inspection conducted in July of 2006, and follow-up site visits. The CNDDB records show a general occurrence of fragrant fritillary (*Fritillaria liliacea*) extending to the edge of the site vicinity, but no other occurrences have specifically been reported from the site.

Numerous special-status plant species are known from the Oakland Hills, such as Diablo helianthella (*Helianthella castenea*), robust monardella (*Monardella villosa* ssp. *globosa*), Santa Cruz tarplant (*Holocarpha macradenia*), western leatherwood (*Dirca occidentalis*), bent-flowered fiddleneck (*Amsinkia lunaris*), pallid manzanita (*Arctostaphylos pallida*), most-beautiful jewel-flower (*Streptanthus albidus* ssp. *peramoenus*), alkali milk-vetch (*Astragalus tener* var. *tener*), Persidio clarkia (*Clarkia franciscana*), and fragrant fritillary. These species have varied legal status, and most are considered rare in California (list 1B) by the CNPS. The closest known occurrence is for western leatherwood,

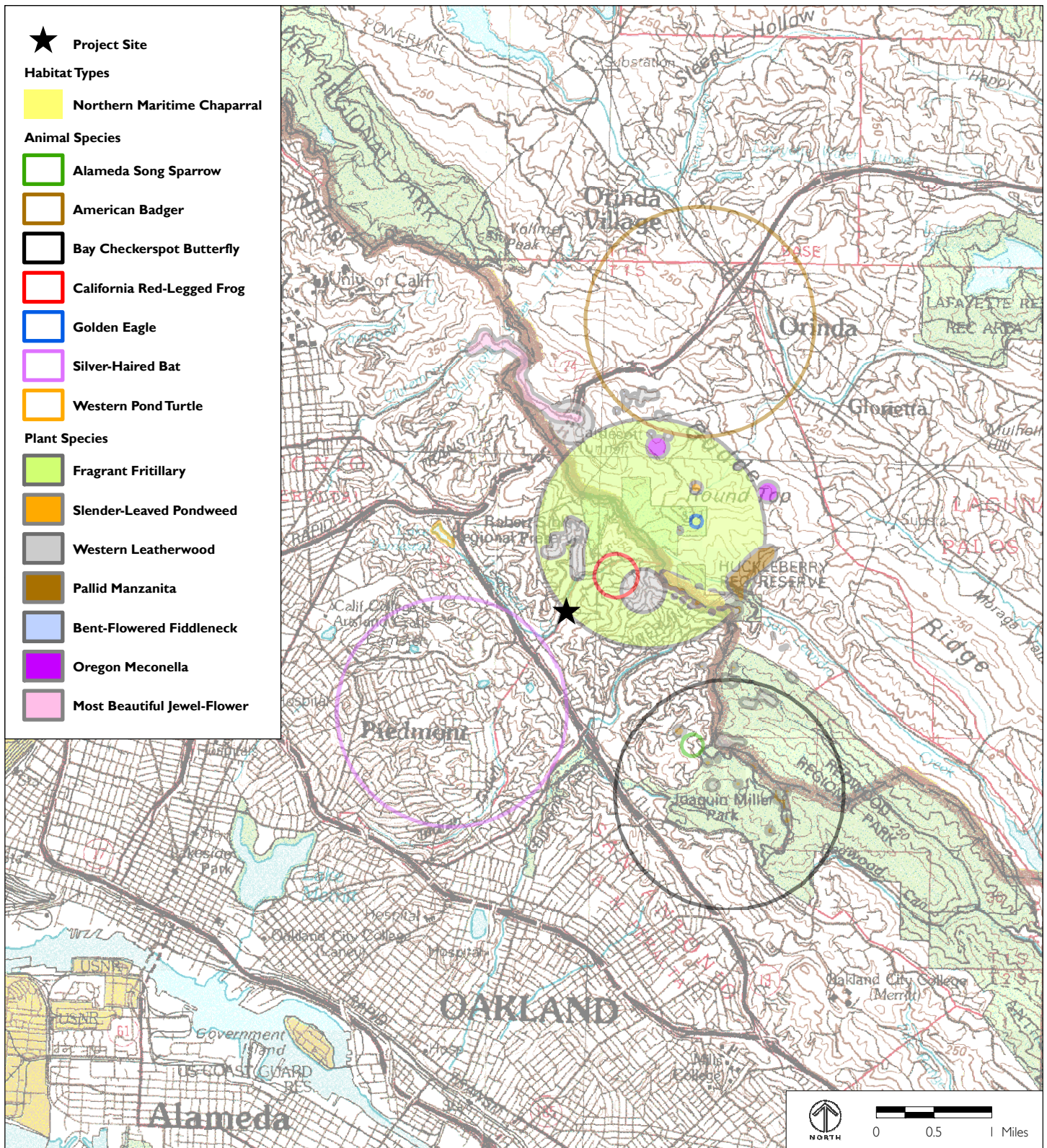


FIGURE 4.2-1
REPORTED OCCURRENCES OF SENSITIVE NATURAL COMMUNITIES
AND SPECIAL-STATUS SPECIES WITHIN A 2-MILE RADIUS

which occurs in the hillsides further up the watershed. However, the extent of past disturbance of the site from grading, landscaping, and spread of invasive groundcover species precludes the occurrence of any special-status plant species along the Temescal Creek corridor on the site.

Special-status animal species known or suspected from the Oakland Hills include: Alameda whipsnake (*Masticophis lateralis euryxanthus*), California red-legged frog (*Rana aurora draytonii*), Berkeley kangaroo rat (*Dipodomys heermanni berkeleyensis*), bay checkerspot butterfly (*Euphydryes editha bayensis*), callippe silverspot butterfly (*Speyeria callippe callippe*), monarch butterfly (*Danaus plexippus*), northwestern pond turtle (*Clemmys marmorata*), and several species of raptors and bats. Suitable habitat for special-status animal species is generally absent from the site due to the extent of past disturbance, surrounding development and human activity, and the absence of conditions necessary to support these species. This includes absence of freshwater marsh and riparian habitat necessary for breeding by California red-legged frog, native grassland and scrub habitat necessary to support Berkeley kangaroo rat, native serpentine grassland and larval host plant species for bay checkerspot butterfly, native grassland with larval host plant species for callippe silverspot butterfly, scrub/chaparral habitat with sunning areas and prey species necessary to support Alameda whipsnake, eucalyptus necessary to support overwintering areas for monarch butterfly, and nesting/roosting habitat for raptors and bats. Steelhead (*Oncorhynchus kisutch*) were historically known from the streams of the East Bay, and Temescal Creek most likely once served as habitat for native runs of this federally-threatened species. But downstream culverts, drop structures, and the dam at Temescal Lake preclude this species and northwestern pond turtle from migrating this far up Temescal Creek.

One species of particular concern in creek habitats is the potential for occurrence of the federally-threatened California red-legged frog. According to the CNRDB, an occurrence of California red-legged frog has been identified about half a mile east of the site, reported from "Thornhill Pond" sometime in the 1940's. It is unknown whether a population of California red-legged frog still occurs in that pond, which is on private property. The creek across

the site may have previously served as a dispersal corridor for this species when accessible breeding habitat once occurred downstream and would have encouraged individuals to move along the creek corridor. However, suitable habitat for this species is generally absent on the site given the absence of emergent vegetation, native willow cover, or pools suitable for breeding. The intervening reach of Temescal Creek between this 1940's-reported occurrence and the site has been extensively developed, with segments of creek having been culverted above and below the site. Heavy predation by raccoons most likely precludes the survival of any dispersing California red-legged frogs that may be dispersing from the historic occurrence, if the population remains intact. A preconstruction survey by a qualified biologist would ensure that any dispersing California red-legged frogs are avoided and protected in the remote instance that one were to move through the project reach of the creek during construction.

3. Jurisdictional Waters

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration and purification functions.

As discussed above under Regulatory Setting, the CDFG, Corps and RWQCB have jurisdiction over modifications to wetlands and other "waters of the United States", and the City of Oakland regulates modifications to creeks under Chapter 13.16 of the City of Oakland Municipal Code. The open drainage of Temescal Creek qualifies as a regulated jurisdictional water by the Corps, RWQCB, CDFG, and City of Oakland. This drainage forms a well defined channel with a conspicuous Ordinary High Water Mark (OHWM) of about 20 feet in width along this reach of Temescal Creek. Wetland vegetation is generally absent, although the unvegetated "other waters of the U.S." are still regulated by jurisdictional agencies.

C. Threshold of Significance

The proposed project would have a significant impact related to biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
3. Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means.
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
5. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.
6. Fundamentally conflict with the City of Oakland Tree Preservation and Removal Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected trees under certain circumstances? Factors to be considered in determining significance include: The number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) the protected trees to remain, with special consideration given to native trees. Protected trees include the following: coast live oak (*Quercus agrifolia*) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring

nine inches dbh or larger except eucalyptus and Monterey pine; provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be protected trees.

7. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of riparian and aquatic habitat through: (a) discharging a substantial amount of pollutants into a creek; (b) significantly modifying the natural flow of the water; (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.

D. Impacts, Standard Conditions of Approval and Mitigation Measures

This section describes the potential impacts that could occur to biological resources as a result of the proposed project.

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

Past disturbance to the project site, including residential and other urban uses, precludes the occurrence of any special-status plant species from the project site. A site survey conducted in 2008 confirmed that suitable habitat for special-status species plant or animal is absent from the site and the likelihood of the future occurrence of special-status plant or animal species on this site is considered unlikely or remote. However, there is a remote possibility of the federally-threatened California red-legged frog could disperse along Temescal Creek at some point in the future. Individual frogs would most likely not

survive long-term along the reach of Temescal Creek in the vicinity of the site because of the likelihood of predation by raccoons and other predators. But in the very remote instance that individual frogs happened to disperse onto the site along the creek channel at the time of bridge construction or stabilization activities, they could be inadvertently injured or destroyed. Because of this remote possibility, the project is considered to have a *potentially significant* impact on special-status animal species, which can be reduced to a less-than-significant level with the following mitigation measure and Standard Conditions of Approval.

Impact BIO-1: The project site currently does not support occurrences of any special-status species, but there remains a remote possibility that California red-legged frog could disperse along Temescal Creek in the future. If any frogs are present in this reach of the creek when bridge and restoration work is to be implemented, individuals could be injured or destroyed unless appropriate measures are taken. This is a *potentially significant* impact.

Mitigation Measure BIO-1: The applicant shall implement appropriate avoidance measures and shall conduct a pre-construction survey for California red-legged frog prior to initiation of the bridge construction or stabilization efforts work along Temescal Creek. The United States Fish and Wildlife Service (USFWS) has outlined mitigation measures for activities authorized by the Corps under their Nationwide Permit program in their *Programmatic Formal Endangered Species Act Consultation on Issuance of Permits under Section 404 of the Clean Water Act or Authorizations under the Nationwide Permit Program for projects that May Affect the California Red-legged Frog*. The following procedures are adapted from the Programmatic opinion by the USFWS and shall be implemented to avoid potential impacts:

- ◆ A qualified biologist shall conduct a pre-construction survey of the creek to confirm absence of any California red-legged frog from the site. The survey shall be conducted no more than two weeks before any construction activities are initiated in or within 100 feet of the creek. If California red-legged frogs, tadpoles, or eggs are found, the

qualified approved biologist shall contact the USFWS, to determine if moving any of these lifestages is appropriate. Only a USFWS-approved biologist shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

- ◆ Before any construction activities begin, the approved biologist(s) shall conduct a training session for all construction personnel. At a minimum, the training shall include: (a) a description of the California red-legged frog and habitat for this species; (b) the general measures that are being implemented to conserve this species as they relate to the project, and (c) the boundaries within which the project may be accomplished.
- ◆ During project construction activities, all trash that may attract predators shall be properly contained, removed from the work site and disposed of properly.
- ◆ All fueling and maintenance of vehicles and other equipment, and staging areas, shall be located at least 20 feet from the creek. Prior to the onset of work, the applicant shall prepare a plan to allow a prompt and effective response to any accidental spills into the creek. All workers shall be informed of the importance of preventing spills and the appropriate measures to take should a spill occur.
- ◆ Instream work (dewatering, bridge-related construction, channel stabilization, invasive species removal, and creek enhancement plantings) will only occur between June 15 and October 15) during low flow periods.
- ◆ To control erosion during and after project construction, the applicant shall implement Best Management Practices, as identified by the RWQCB and described in a Stormwater Pollution Prevention Plan for the project.
- ◆ If the construction reach of the creek is temporarily de-watered by pumping, intakes shall be completely screened with wire mesh not larger than five millimeters to prevent California red-legged frogs, from entering the pump.

- ♦ The USFWS-approved biologist shall permanently remove, from within the project site, any individuals of exotic wildlife species, such as bullfrogs and crayfish to the extent possible.

Significance after Mitigation: *Less than significant.*

2. **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.**

The project site does not support any sensitive natural community types identified in local or regional plans, policies, regulations, or by the CDFG. Most of the existing tree, shrub and groundcover on-site are comprised of non-native species, including most of the tree, shrub and groundcover along the creek corridor. Additionally, the mature native cottonwood located near the proposed footings for the new bridge does not constitute a sensitive natural community type, and this specimen tree will be retained as part of the bridge construction and habitat enhancement along the creek corridor. A discussion of the direct effects of the new bridge and associated changes to the creek embankment on the regulated waters of Temescal Creek is provided below under in response to criteria 3. As previously noted, the creek corridor is dominated by non-native species and the project proposes substantial habitat enhancement through removal of non-native species and replacement with native riparian species. As discussed in response to criteria 7, the project would result in a loss of riparian habitat in the area under the proposed bridge. As discussed below, this impact would be mitigated through the inclusion of Mitigation Measure BIO-2. However, no substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or FWS would occur as a result of the proposed project. As a result, a *less-than-significant* impact would occur.

3. **Have a substantial adverse effect on federally protected wetlands (as defined by Section 404 of the Clean Water Act) or state protected wet-**

lands, through direct removal, filling, hydrological interruption, or other means.

Temescal Creek is a regulated water body. Any modifications to the bed or bank would be subject to authorization from the Corps, RWQCB, CDFG, and the City of Oakland. As determined during site inspections, wetlands are absent along the creek channel, but the active channel is regulated by the Corps and RWQCB as an "other waters of the U.S." below the Ordinary High Water Mark. The CDFG and the City of Oakland regulate activities beyond the top of bank, including protection of any riparian cover that currently shades the stream. Construction of the new bridge and proposed bank stabilization activities below the bridge would result in modifications to the bed and bank of the channel, and would affect the existing vegetative cover, which would be a significant impact. Conditions of agency authorizations typically include avoiding impacts to established native vegetation, minimizing disturbance to in-channel habitat and the potential for sedimentation and water quality degradation, and providing replacement mitigation to ensure no net loss of habitat functions or values. The proposed enhancement activities along the creek corridor, including removal of invasive species and planting of native trees, shrubs, and groundcover species would serve to improve existing habitat. Implementation of the following Standard Conditions of Approval would reduce the impact to a *less-than-significant* level.

Standard Condition of Approval BIO-1: Regulatory Permits and Authorizations. *Prior to issuance of a demolition, grading, or building permit within vicinity of the creek.* Prior to construction within the vicinity of the creek, the project applicant shall obtain all necessary regulatory permits and authorizations from the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game, and the City of Oakland, and shall comply with all conditions issued by applicable agencies. Required permit approvals and certifications may include, but not be limited to the following:

- a. U.S. Army Corps of Engineers (Corps): Section 404. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in Waters of the U.S., if any, within the interior of

the project site, pursuant to Section 404 of the federal Clean Water Act.

- b. Regional Water Quality Control Board (RWQCB): Section 401 Water Quality Certification. Certification that the project will not violate state water quality standards is required before the Corps can issue a 404 permit, above.
- c. California Department of Fish and Game (CDFG): Section 1602 Lake and Streambed Alteration Agreement. Work that will alter the bed or bank of a stream requires authorization from CDFG.

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

No significant impacts on wildlife habitat and movement corridors are anticipated given the relatively low habitat values of the site. Some common ground-mobile species such as pocket gopher, fence lizard, Norway rat, and house mouse would be lost during building demolition, grading and construction, but these species are relatively abundant or are not native, and their individual loss would not be considered significant. Implementation of the City's Standard Condition of Approval BIO-3, Tree Removal During Breeding Season (see below), would serve to protect any active bird nests during construction. Birds which utilize the site would most likely avoid the disturbed portions of the site until construction has been completed and new landscaping begins to provide replacement cover and foraging opportunities. However, the site currently has only limited wildlife habitat values, generally for species common in suburban habitat, does not support any sensitive species, and contains no important raptor nesting or roosting locations.

Although existing habitat values on the site are relatively low due to the dominance by non-native species, the Temescal Creek most likely serves as a source of drinking water for terrestrial wildlife during the dry season and the creek corridor is most likely used by species such as black-tailed deer, raccoon, opossum, skunk and other species tolerant of human development and activity. No indications of any aquatic species were observed during the field

reconnaissance surveys of the site, and it is unlikely that the creek currently supports much of a fishery resource given the poor water quality and significant downstream barriers to movement. Proposed bridge construction and embankment stabilization activities along the creek would temporarily disrupt use of the area by wildlife, but this is seen as a minor impact for these adaptable species. The bridge is designed to allow for movement of these species under the structure, and it would not significantly impede wildlife movement along the channel bottom of the creek. The concrete culvert and drop structure immediately upstream and the culvert under Alhambra Road about 80 feet downstream of the site precludes use of the creek as an important movement corridor for wildlife in the project vicinity. Given the limited existing habitat values, extent of surrounding development, and enhancement provisions of the project along Temescal Creek, potential impacts on wildlife habitat and wildlife movement opportunities would be considered *less-than-significant*.

5. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.

The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. There are no approved conservation plans encompassing the site or vicinity. Therefore, *no impact* would occur.

6. Fundamentally conflict with the City of Oakland Tree Preservation and Removal Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected trees under certain circumstances? Factors to be considered in determining significance include: The number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) the protected trees to remain, with special consideration given to native trees.

The proposed project includes an application for a tree removal permit as required under the City of Oakland Protected Trees Ordinance. As indicated in the project description and recommended in the 2009 *Tree Report*, a total of 65 (56 protected) trees would be removed as part of the project. Although many of the 90 trees recommended for preservation are in close proximity to proposed construction activities and require protection, unless exceptions are

allowed, construction activities, including grading, paving, or installation of irrigation shall not occur within the Tree Preservation Zones, as described in the Tree Preservation Plan (Figure 3-12). The Tree Preservation Zones vary in size, depending on the size of the trees. Trees to be removed as part of the project are listed in Table 4.2-1, which identifies species, trunk size, whether it is a protected tree, and specific comments related to that particular tree. Trees to be preserved as a part of the project are listed in Table 4.2-2, which also identifies species, trunk size, protected tree status, and comments related to its recommended preservation.

Of the 65 trees mapped on the site that were recommended for removal in the 2009 *Tree Report*, a total of 13 trees to be removed are located within the construction impact area of the new bridge. The remaining 52 trees would be removed to accommodate new parking and roadway improvements, or because of their poor condition. A total of 18 trees are to be removed to accommodate development and the remaining 47 were recommended for removal in the 2009 *Tree Report* because of their poor condition and unsuitability for preservation. The 2009 *Tree Report* includes "Tree Preservation Guidelines" that would ensure protection of trees to be retained. Replacement plantings would be required for all trees to be removed, consistent with the City's Tree Preservation and Replacement Ordinance. Of the 65 trees to be removed, a total of 13 trees (less than 20 percent) are native species indigenous to the area (i.e. coast live oak and big leaf maple), all of these are relatively young trees (with trunk diameters under 15-inch diameter at breast height), and most are sapling trees. While the trees on the site do provide perching, foraging, and potential nesting opportunities for birds, most of the mature and important trees in terms of their habitat functions and values would be preserved. The enhancement native plantings along the Temescal Creek corridor and replacement tree plantings throughout the site required for conformance with the City's ordinance would serve to address the impact of proposed tree removal on existing wildlife habitat values of the site

As currently proposed as part of the project, many of the trees proposed for removal would be replaced with native tree species. Most of these native

TABLE 4.2-1 TREES TO BE REMOVED

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
1	Incense cedar	18,9,7,6	Yes	Codominant at base with included bark between trunks; thin crown; small trunks with suppressed crowns.
2	Coast live oak	11	Yes	Tree in decline; thin crown; trunk leans south; branch dieback.
3	Incense cedar	21	Yes	Narrow upright form; thin high crown.
4	Incense cedar	18	Yes	High crown bows over house; high potential to fail; remove tree.
5	Douglas-fir	20	Yes	Good form and structure; full high crown.
6	Pyracantha	7,2,2	Yes	Suppressed crown; branch dieback; large shrub form.
7	Bigleaf maple	14,13	Yes	Codominant at 2 feet; 14-inch stem bows west; twig dieback.
9	Unknown		No	High stump with ivy.
10	Coast redwood	12	Yes	High thin crown; top of creek.
11	Plum	10	Yes	Branch dieback; branch failures; epicormic sprouts; top of creek.
12	Plum	10	Yes	Trunk engulfed in ivy; epicormic sprouts.
15	Cherry	9	Yes	Dead.
20	Incense cedar	21,21	Yes	Codominant at base with included bark between trunks; full crown; stems maybe separating.
21	Hollywood juniper	14	Yes	Crown flat on north; trunk growing into porch.
24	Deodar cedar	13	Yes	Trunk and crown engulfed in ivy; small crown; top of creek.
25	Plum	10,6	Yes	Codominant at 6 feet with included bark between attachments.

TABLE 4.2-1 **TREES TO BE REMOVED (CONTINUED)**

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
26	English laurel	8,6,5	Yes	Partial root failure; trunk leans north; low crown.
27	American elm	16	Yes	High crown; branch failures; trunks engulfed in ivy.
28	American elm	15	Yes	High crown; branch failures; trunks engulfed in ivy.
29	American elm	14	Yes	High crown; branch failures; trunks engulfed in ivy.
30	Plum	6,5	Yes	Poor form and structure; suppressed crown.
31	Plum	8,4,4	Yes	Extensive sprouting; included bark between attachments.
32	Apple	5,4	Yes	Trunks divide at 3 feet with included bark; upright form; low crown; fireblight.
33	Apple	4,4,4	Yes	Trunks divide at 1-foot with included bark; upright form; low crown; fireblight.
34	Apple	6,3,3	Yes	Partial root failure; trunk leans west low crown; fireblight.
35	Apple	3,3,3	Yes	Trunks divide at ground with included bark; upright form; fireblight.
36	Apple	6,3	Yes	Suppressed crown; crown bows southwest; fireblight.
37	Cherry	4,4,4	Yes	Trunks divide at 1-foot with included bark; upright narrow form; twig dieback.
38	Plum	4,2	No	Trunks stem from base with included bark between attachments; twig dieback.
39	Loquat	5,3	No	Previously topped; full crown; trunks stem from base within included bark.
40	Plum	4,3,2,2,2	Yes	Thin crown; extensive branch dieback.
41	Plum	7,4	Yes	Good form and structure; crown somewhat thin; branch dieback.
42	Apple	5,4,3	Yes	Trunks divide at 2 feet; upright form; low crown; fireblight.

TABLE 4.2-1 TREES TO BE REMOVED (CONTINUED)

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
43	Plum	4,4,3,3	Yes	Trunks stem from base with included bark between attachments; twig dieback.
44	Plum	6,3	Yes	Crown leans west; trunks stem from base with included bark between attachments; twig dieback.
45	Apple	5,4,3	Yes	Partial root failure; trunk leans west; suppressed crown.
46	Apple	6,5	Yes	Upright form; twig dieback; fireblight.
47	Apple	8,8,6,6	Yes	Tree in decline; extensive branch dieback.
48	Apple	10,7,6,4	Yes	Trunks divide at 2 feet; good form; low crown; 4 inches west facing stem was dead; fireblight.
49	Apple	5,3,2	Yes	Tree in decline; extensive branch dieback.
50	Monterey pine	20	No	Codominant at 18 feet with included bark; high potential to fail; crown somewhat thin; chlorotic needles.
51	Coast live oak	8	Yes	Trunk and crown leans north; suppressed crown in grove; branch dieback.
52	Coast live oak	7	Yes	Suppressed crown in grove; crook in trunk at 4 feet.
53	Hawthorne	4,4	No	Poor form and structure; tree leans west.
54	Plum	9	Yes	Topped at 7 feet; extensive sprouting; included bark between attachments.
55	Monterey pine	15	No	Poor narrow form; crook in trunk; ivy on trunk.
56	Plum	9,8	Yes	Extensive branch dieback; included bark between attachments.
57	Glossy privet	3,3,2,2,2	Yes	Trunks stem from base; shrub form.
58	Glossy privet	3,3,3,2,2,2, 2	Yes	Trunks stem from base; shrub form.
59	Glossy privet	3,3,2,2	Yes	Suppressed crown; declining health; shrub form.

TABLE 4.2-1 TREES TO BE REMOVED (CONTINUED)

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
60	Glossy privet	7,6	Yes	Suppressed crown; declining health; shrub form.
61	Chinese elm	7	No	Poor form and structure; large trunk wound.
62	Hawthorne	6	No	Narrow upright form; branch failure; trunk wound on east.
63	Glossy privet	4,3,2,2	Yes	Suppressed crown; declining health; shrub form.
64	Coast live oak	4	Yes	Suppressed crown in grove.
65	Coast live oak	6	Yes	Trunk and crown leans north; suppressed crown in grove; branch dieback.
66	Coast live oak	10,6	Yes	Trunk divides at 2 feet with included bark; decay in 6-inch trunk; trunk and crown leans north; suppressed form.
67	Coast live oak	5,5	Yes	Trunk and crown leans north; suppressed crown in grove; branch dieback.
68	Coast live oak	8	Yes	Trunk and crown leans north; suppressed crown in grove; branch dieback.
69	Coast live oak	5	Yes	Suppressed crown in grove; trunk leans north; branch dieback.
70	Coast live oak	7	Yes	Suppressed crown in grove; upright form; branch dieback.
71	Cryptomeria	13	Yes	Tree in decline; narrow form.
72	Monterey pine	28	No	Poor form; one-sided crown; branch dieback.
73	Douglas-fir	20	Yes	Poor form; crook in trunk at 40 feet; one sided crown.
74	Coast live oak	10	Yes	Suppressed crown to west; tree bows over parking lot.

Source: HortScience, 2009.

TABLE 4.2-2 **TREES TO BE PRESERVED**

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
75	Coast live oak	14	Yes	Development impacts; west of existing parking lot.
AA	Coast live oak	14	Yes	Trunk and crown leans north; suppressed crown in grove; branch dieback.
AC	Coast live oak	15	Yes	Good form and structure; crown somewhat thin.
AF	Coast live oak	15	Yes	Tree leans west towards parking lot; good form and structure; crown somewhat thin.
AG	Coast live oak	11	Yes	Good form; branch dieback; suppressed crown in grove.
AI	Coast live oak	10,6	Yes	Trunk and crown leans north; suppressed crown in grove; branch dieback.
AJ	Coast live oak	8	Yes	Suppressed crown in grove; branch dieback.
AK	Coast live oak	7	Yes	Suppressed crown in grove; trunk leans north; branch dieback.
AL	Coast live oak	20	Yes	Untagged and offsite; good form and structure; crown extended 24' south from edge of property into project site.
AN	Coast live oak	10	Yes	Trunk and crown leans north; branch dieback.
AO	Coast live oak	24,20,20	Yes	Trunks divide at 1.5'; cavity in trunk at attachments; decay in pruning wound; two stems over house and rear yard with heavy weight; epicormic sprouts.
AP	Coast live oak	10,9	Yes	Trunk divides at 1'; crook in-trunk.
AR	Coast live oak	9	Yes	Suppressed crown; thin crown.
AS	Coast live oak	14	Yes	Trunk and crown leans west over parking lot.
AT	Coast live oak	19	Yes	Good form; trunk divides at 15'; decay in pruning wounds.
AU	Coast live oak	28	Yes	Trunk divides at 15' into two stems; decay in pruning wound; crown somewhat thin; branch on east propped with steel post.
AV	Red horse chestnut	17	Yes	Good form and structure; crown somewhat thin; in 4' tree well; raised concrete.

TABLE 4.2-2 **TREES TO BE PRESERVED** (CONTINUED)

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
AW	Red horse chestnut	20	Yes	Good form and structure; crown somewhat thin; in 4' tree well; raised concrete.
AX	Red horse chestnut	9	Yes	Good form and structure; crown somewhat thin; in 4' tree well.
AY	Coast live oak	15	Yes	Good young tree; remove 5"-stem with included bark.
AZ	Cherry	7,4	Yes	Overtopped by BB; thin crown; branch dieback.
B	Coast redwood	67	Yes	Good form; full crown; trunk divides into multiple stems at 5' with included bark; trunks fused together.
BB	Saucer magnolia	6,6,6,4,3	Yes	Trunks stem from base; good form; full crown.
BD	Coast redwood	36	Yes	Good form; full crown; codominant at 6' with trunks fused together.
BE	Cherry	9	Yes	Trunks divide at 4'; twig dieback; crown somewhat thin.
BG	English laurel	8,6,6	Yes	Trunks stem from base; upright form; full crown.
BH	English laurel	6	No	Partial root failure; suppressed crown.
BI	English laurel	8,8	Yes	Trunk divides at 3' with wide attachment; low crown.
BJ	English laurel	9,7,7,6,5, 5,4,4,4,3	Yes	Partial root failure; trunks stem from base; some trunks on ground.
BK	Coast live oak	19	Yes	Offsite; codominant at 5'; good form; crown somewhat thin; canopy extends east over parking lot 23'.
BL	Purple leaf plum	16	Yes	Offsite; branch dieback; epicormic sprouts; canopy extends to edge of parking lot.
BR	Coast redwood	32	Yes	Narrow crown; side pruned for utility line; top of creek.
BV	Douglas-fir	14	Yes	High crown, first branch at 20'; 3' from church building.
BW	Plum	9,5	Yes	Extensive sprouting; included bark between attachments.

TABLE 4.2-2 **TREES TO BE PRESERVED** (CONTINUED)

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
BX	Plum	10,8,8	Yes	Trunks stem from base; extensive sprouting; included bark between attachments.
BY	Japanese maple	10,9	Yes	Trunks stem from base; full crown; branches touch at 4'.
C	Coast redwood	26	Yes	Narrow upright form; suppressed crown on east from A.
CA	Plum	6,5	Yes	Good upright form; twig dieback.
CB	Monterey pine	24	No	Thin crown; branch dieback.
CC	Monterey pine	27	No	Thin crown; branch dieback; ivy on trunk; top of creek.
CD	Giant sequoia	19	Yes	Good form and structure; crown somewhat thin; browning needles; ivy on trunk.
CE	Giant sequoia	30	Yes	Suppressed crown on creek side; crown somewhat thin; browning needles; ivy on trunk.
CF	Giant sequoia	7	No	One sided form; browning needles; top of creek.
CG	Fremont cottonwood	15	Yes	Codominant at 35' with wide attachment; branch dieback; ivy on trunk.
CH	Monterey cypress	18	Yes	Excellent form and structure; full low crown.
CI	Incense cedar	18	Yes	Untagged and offsite; full crown; codominant at 10' with included bark between attachment.
CL	Coast live oak	5	Yes	Good form; suppressed crown in grove; branch dieback.
CM	Ovens wattle	10	Yes	Good form; thin crown; branch dieback; suppressed crown in grove.
CN	Coast live oak	20,18	Yes	Trunk divides at 2' with included bark; trunk and crown leans north; suppressed form.
CP	Coast live oak	14,14,12	Yes	Trunks divides at 2'; good form; tree under utility lines.
CQ	Coast live oak	10	Yes	Trunk and crown leans east; suppressed form.

TABLE 4.2-2 TREES TO BE PRESERVED (CONTINUED)

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
CT	Coast live oak	13	Yes	Suppressed crown in grove; branch dieback.
CU	Coast live oak	8	Yes	Suppressed crown in grove; trunk leans north; branch dieback.
CV	Coast live oak	10	Yes	Suppressed crown in grove; branch dieback.
CW	Coast live oak	6	Yes	Suppressed crown in grove; upright form; branch dieback.
CZ	Coast live oak	10	Yes	Upright form; high crown; in grove; branch dieback.
D	Deodar cedar	36	Yes	Offsite; narrow form; codominant at 30'; two stems touch at 33'; branch failure.
DA	Coast redwood	40,18,14,13,11,10,7	Yes	Topped; wide crown; under utility lines.
DB	Coast live oak	8	Yes	Good young tree; codominant at 18'; under utility lines.
DC	Coast live oak	12,6	Yes	Good young tree; trunks stem from base; under utility lines.
DD	Coast live oak	9	Yes	Good young tree; codominant at 15'.
DE	Coast live oak	22	Yes	Good form; trunk divides at 5'; corner of Goulidn Rd. and driveway; under utility lines.
DF	Coast live oak	8	Yes	Good young tree; codominant at 6'; remove small stem.
DG	Coast live oak	8,3	Yes	Good young tree; full crown; codominant at 6' with included bark.
DH	Plum	5,5,5	Yes	Multiple attachments at 2'; branch dieback.
DI	Coast live oak	9	Yes	Good young tree; excellent form and structure.
DJ	Coast live oak	16,13	Yes	Good form; full crown; trunk divides at 1' with included bark; seam below attachment.
DK	Coast live oak	6	Yes	Poor form; lost central leader; suppressed crown.

TABLE 4.2-2 TREES TO BE PRESERVED (CONTINUED)

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
DL	Monterey pine	27	No	High crown; trunk leans north; weight heavier on north.
DM	Monterey pine	27	No	High crown; crown bows southeast; weight heavier on southeast; ivy on trunk.
DN	Monterey pine	11	No	Young tree; crook in trunk at 30 feet.
DO	Irish yew	9	Yes	Oval form; full crown.
DP	Coast live oak	21	Yes	Good form; codominant at 6 feet with included bark; ivy on trunk.
E	Coast redwood	32	Yes	Excellent form and structure; full low crown.
F	Coast live oak	25	Yes	Good form; decay in pruning wound on south; cable north facing stem towards carport.
H	Coast redwood	61	Yes	Good form; codominant at 6 to 10 feet with several stems fused together; full crown.
I	Irish yew	multi	Yes	Off-site; eight stems 7 inches and under; trunks divide at 2 feet; full crown.
J	Coast live oak	35	Yes	Good form and structure; northwest facing scaffold horizontal and heavy; large pruning wound on south was closed.
K	London plane	27	Yes	Open spreading form; high crown; top of creek.
L	Canary Island pine	32	Yes	Good form and structure; full crown; ivy on trunk.
M	Fremont cottonwood	36	Yes	High crown; branch failures; ivy on trunk.
N	Deodar cedar	16	Yes	Thin crown; branch dieback; at top of creek.
O	Coast redwood	22,7	Yes	Narrow crown; side pruned for utility line.
P	Coast redwood	27	Yes	Narrow small crown; side pruned for utility line.
Q	Coast live oak	23	Yes	Topped; trunk leans northwest touching wood shed; cavity in pruning wound on west; trunk maybe in fill soil.

TABLE 4.2-2 **TREES TO BE PRESERVED** (CONTINUED)

Tree No.	Species	Size Diameter (Inches)	Protected Tree?	Comments
T	Coast redwood	28	Yes	Narrow crown; side of creek.
U	Coast redwood	15	Yes	Narrow suppressed crown; side of creek.
V	Coast redwood	30	Yes	Good form; full crown; side of creek.
X	Coast redwood	56	Yes	Good form; full crown; codominant at 50 feet; consider removing one of the codominant trunks.
Y	Smooth cypress	7	No	Good young tree.

Source: HortScience, 2008.

replacement trees would be planted as part of the creek enhancement efforts along Temescal Creek, or at the perimeter of parking and roadway improvements. Implementation of the Creek Plan, plantings proposed as part of the project Landscape Plan, and implementation of the following Standard Conditions of Approval would serve to reduce the impacts related to conflicts with the Tree Preservation and Removal Ordinance to a *less-than-significant* level.

Standard Condition of Approval BIO-2: Tree Removal Permit on Creekside Properties. *Prior to issuance of a final inspection of the building permit.* Prior to removal of any tree located on the project site which is identified as a creekside property, the project applicant must secure the applicable creek protection permit, and abide by the conditions of that permit.

Standard Condition of Approval BIO-3: Tree Removal During Breeding Season. *Prior to issuance of a tree removal permit.* To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of raptors shall not occur during the breeding season of March 15 and August 15. If tree removal must occur during the breeding season, all sites shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to start of work from March 15 through May 31, and within 30 days prior to the start of work from June 1 through August 15. The pre-removal surveys shall be submitted to the Planning and Zoning Division and the Tree Services Division of the Public Works Agency. If the survey indicates the potential presences of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the CDFG, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depend-

ing on the bird species and the level of disturbance anticipated near the nest.

Standard Condition of Approval BIO-4: Tree Removal Permit. *Prior to issuance of a demolition, grading, or building permit.* Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit from the Tree Division of the Public Works Agency, and abide by the conditions of that permit.

Standard Condition of Approval BIO-5: Tree Replacement Plantings. *Prior to issuance of a final inspection of the building permit.* Replacement plantings shall be required for erosion control, groundwater replenishment, visual screening and wildlife habitat, and in order to prevent excessive loss of shade, in accordance with the following criteria:

- a. No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered.
- b. Replacement tree species shall consist of *Sequoia sempervirens* (Coast Redwood), *Quercus agrifolia* (Coast Live Oak), *Arbutus menziesii* (Madrone), *Aesculus californica* (California Buckeye) or *Umbellularia californica* (California Bay Laurel) or other tree species acceptable to the Tree Services Division.
- c. Replacement trees shall be at least of twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate.
- d. Minimum planting areas must be available on site as follows:
 - i. For *Sequoia sempervirens*, three hundred fifteen square feet per tree;
 - ii. For all other species listed in #2 above, seven hundred (700) square feet per tree.
- e. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee as determined by the

master fee schedule of the city may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians.

- f. Plantings shall be installed prior to the issuance of a final inspection of the building permit, subject to seasonal constraints, and shall be maintained by the project applicant until established. The Tree Reviewer of the Tree Division of the Public Works Agency may require a landscape plan showing the replacement planting and the method of irrigation. Any replacement planting which fails to become established within one year of planting shall be replanted at the project applicant's expense.

Standard Condition of Approval BIO-6: Tree Protection During Construction. *Prior to issuance of a demolition, grading, or building permit.* Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist (see Appendix F, containing Tree Report, St. John's Episcopal Church, dated October 2008, updated March 2009):

- a. Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project's consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.
- b. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filling, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project's consulting arborist from the base of any protected tree at any time. No burning or use of equip-

ment with an open flame shall occur near or within the protected perimeter of any protected tree.

- c. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the project's consulting arborist from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project's consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.
- d. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.
- e. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency and the project's consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.
- f. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

- 7. **Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include**

whether there is substantial degradation of riparian and aquatic habitat through: (a) discharging a substantial amount of pollutants into a creek; (b) significantly modifying the natural flow of the water; (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.

The project proposes to modify the existing condition of this reach of Temescal Creek. The proposed modifications include a proposed bridge, and bank stabilization features under the proposed bridge. The proposed project would not alter the course of the creek, nor significantly alter vegetation or wildlife. Detailed biological and hydrological reports, attached herein, and explained below and in Section D. of Chapter 4.3 of this EIR, support this finding.

The Temescal Creek channel is a regulated waters, and any modifications to this feature will require authorization from several agencies, including the Army Corps, RWQCB, CDFG, and the City of Oakland. Adequate controls must be taken to prevent degradation of downstream receiving waters during construction and revegetation through implementation of Best Management Practices defined as part of the Restoration Plans and the required Stormwater Pollution Prevention Plan. Conditions associated with authorization from jurisdictional agencies will ensure adequate protection of existing resources and appropriate replacement and enhancement of existing habitat values. The proposed bank stabilization plan (see Figure 3-9) and shadow analysis (discussed in detail below) demonstrate that direct impacts to the creek corridor as a result of the new bridge installation would be less than significant with mitigation as discussed below.

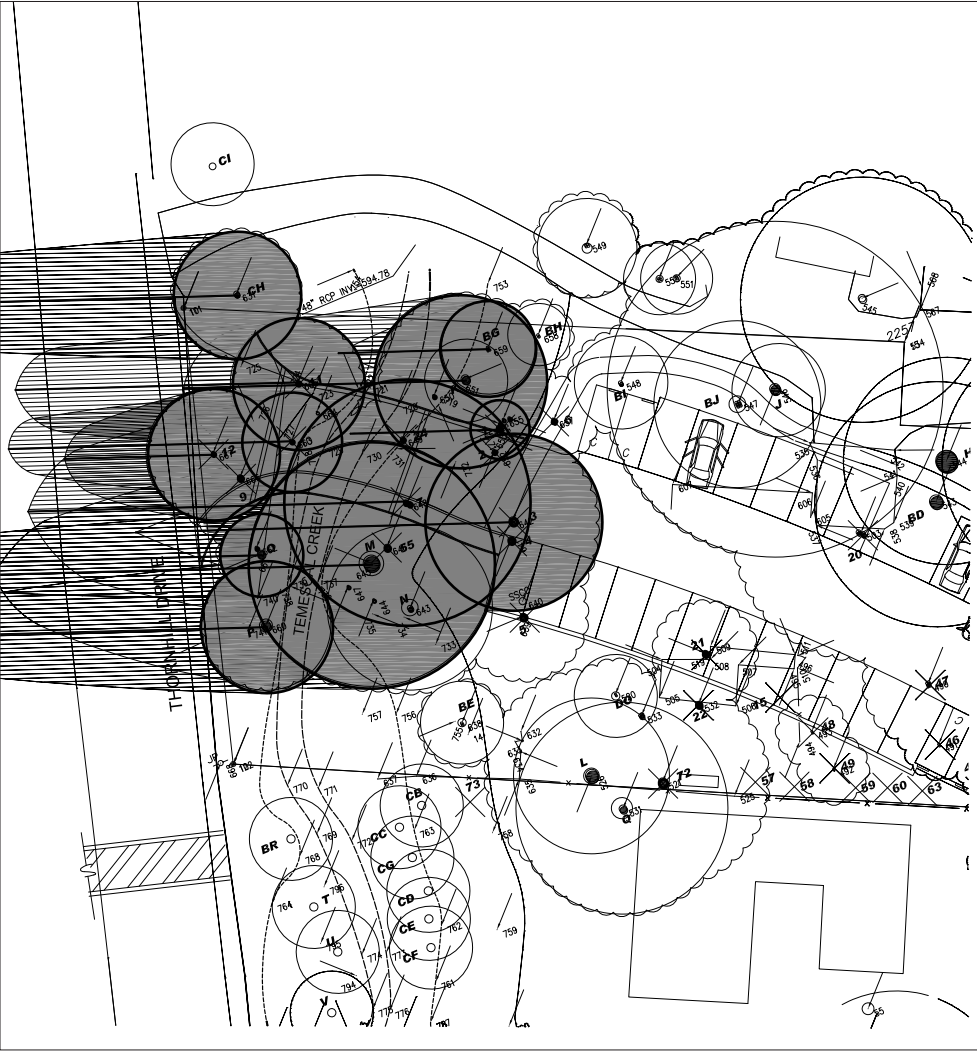
As discussed above under Impact 6, of the 65 trees mapped on the site that were recommended for removal in the 2009 Tree Report, a total of 13 trees to be removed are located within the construction impact area of the new bridge. These include two native species (Tree #2, a coast live oak and Tree #7 a big leaf maple), with the remainder planted ornamentals and invasive species. Wildlife would continue to have access along the creek channel bottom and across the new roadway and no major disruption of wildlife move-

ment opportunities is anticipated given the upstream and downstream culverts.

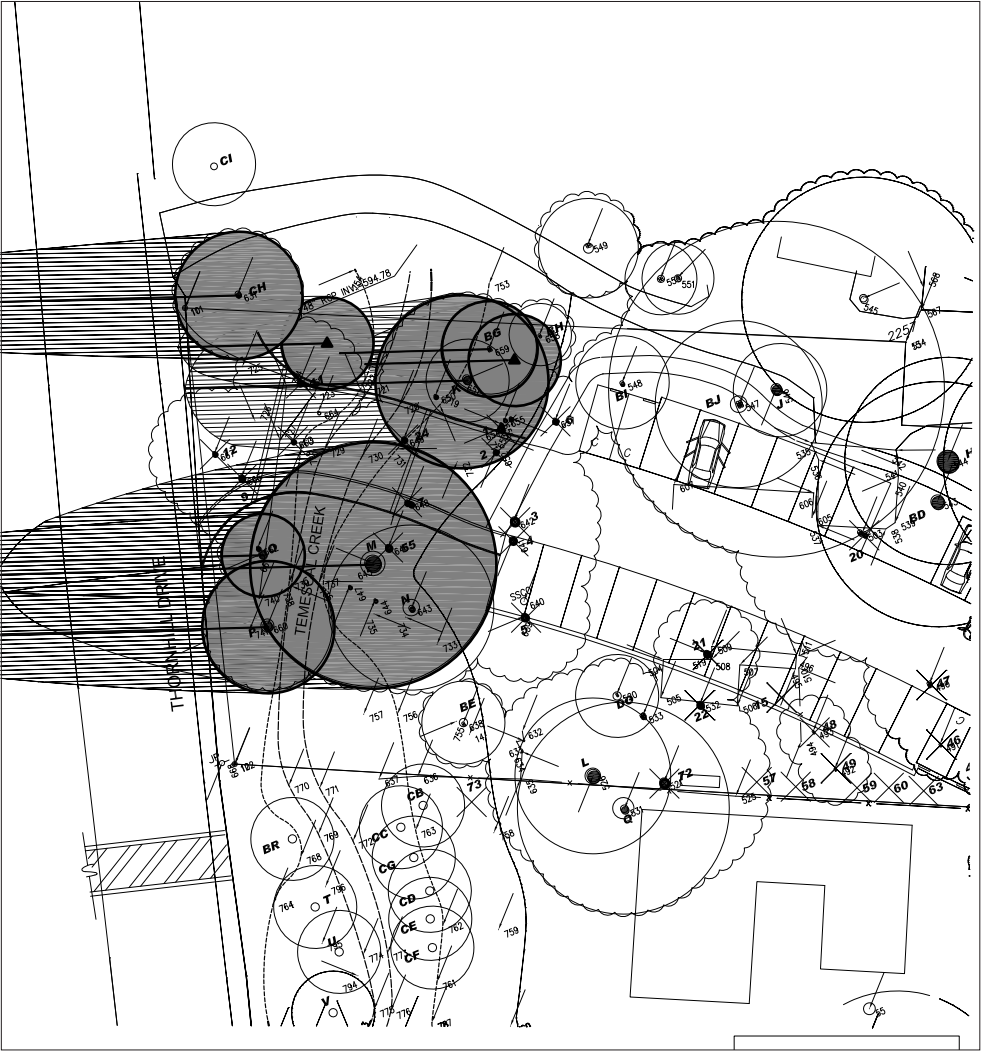
The shading diagrams shown in Figures 4.2-2 through 4.2-10 take into account only the remaining mature trees within the project site that would cast shadows in the vicinity of the proposed bridge. Each figure includes three diagrams that, when shown together provide a summation of how shading patterns would be affected by construction of the proposed project. In diagram A. of each figure, the existing shadow pattern of trees within the project site is shown. In diagram B. of each figure, the shadow pattern resulting from removing and adding trees as part of the project is shown. Diagram C. of each figure shows the shadow pattern resulting from the proposed bridge. The diagrams were completed using data from the tree survey, the proposed planting plan, and the conceptual structural diagram of the bridge, shown in Figure 3-9. The numbering and lettering of trees match the trees shown on the Tree Preservation Plan (Figure 3-13), the Planting Plan (Figure 3-12), as well as tables 4.2-1 and 4.2-2.

The Project's shadow effects were analyzed for representative times of day (9:00 a.m., 12:00 noon, and 3:00 p.m.) during four times of the year; spring equinox (March 20), summer solstice (June 21), fall equinox (September 23), and winter solstice (December 22). The Project's shadow effects on the spring and fall equinox are represented on the same diagram because the tilt of the Earth's axis is not inclined away from, nor towards the Sun, which results in the same shadow patterns on each equinox day. Shadows on any other day of the year would be within the range of shadows shown within the diagrams.

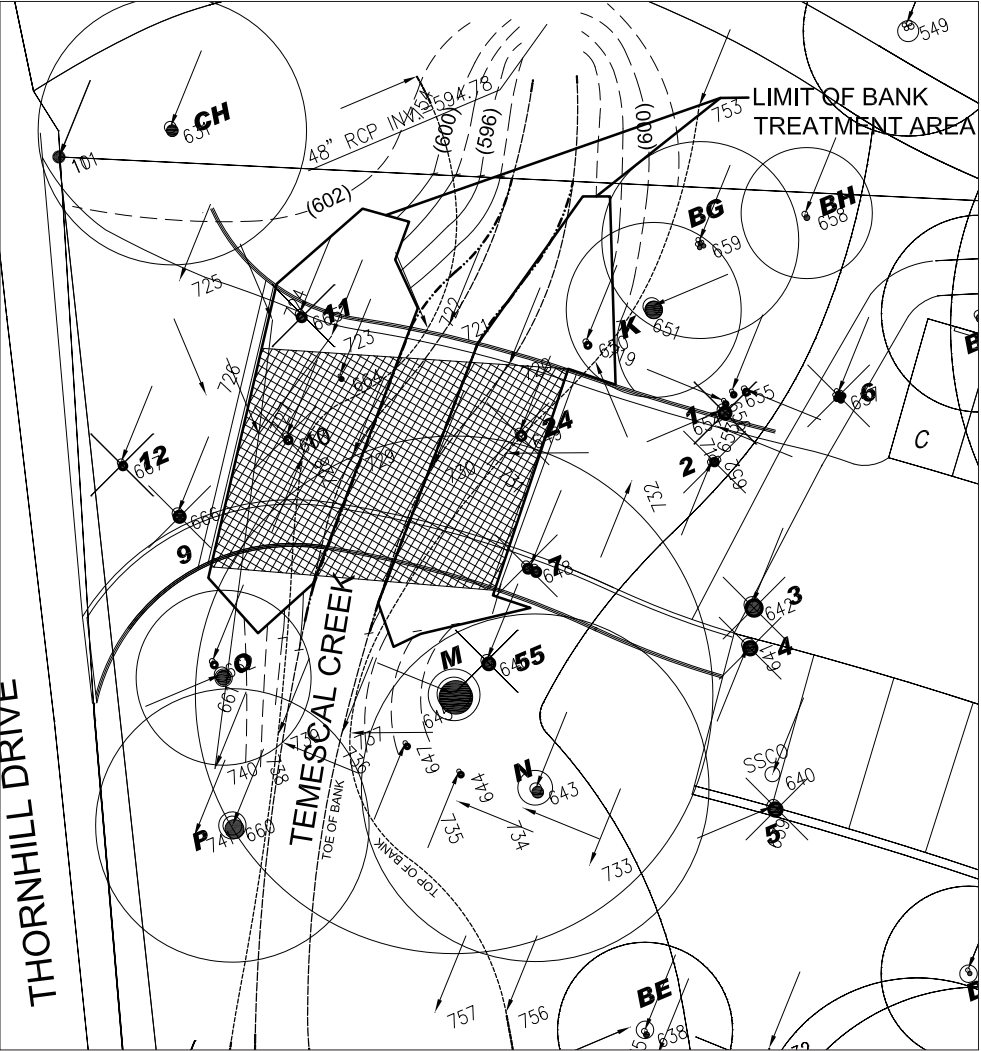
As previously noted, construction of the proposed bridge would require removal of trees along the Temescal Creek embankment. As shown in the figures, trees shading would be less than current conditions due to the removal of trees. However, the proposed bridge would cast a permanent, solid shadow of approximately 476 square feet on the creek and embankment directly under the bridge.



A: EXISTING SHADING AT CREEK/BRIDGE



B: PROPOSED SHADING AT CREEK/BRIDGE



C: PROPOSED BRIDGE SHADING

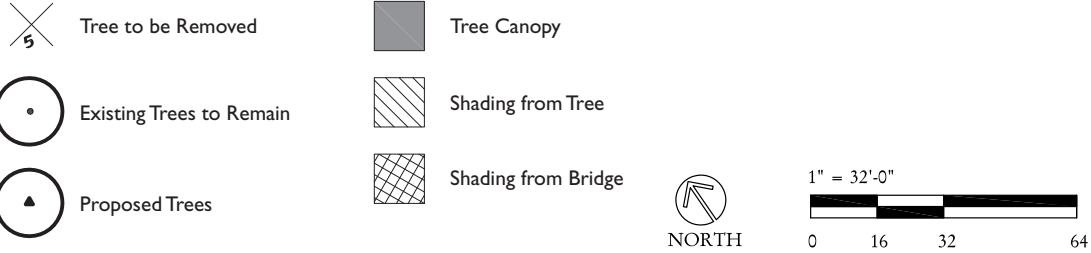
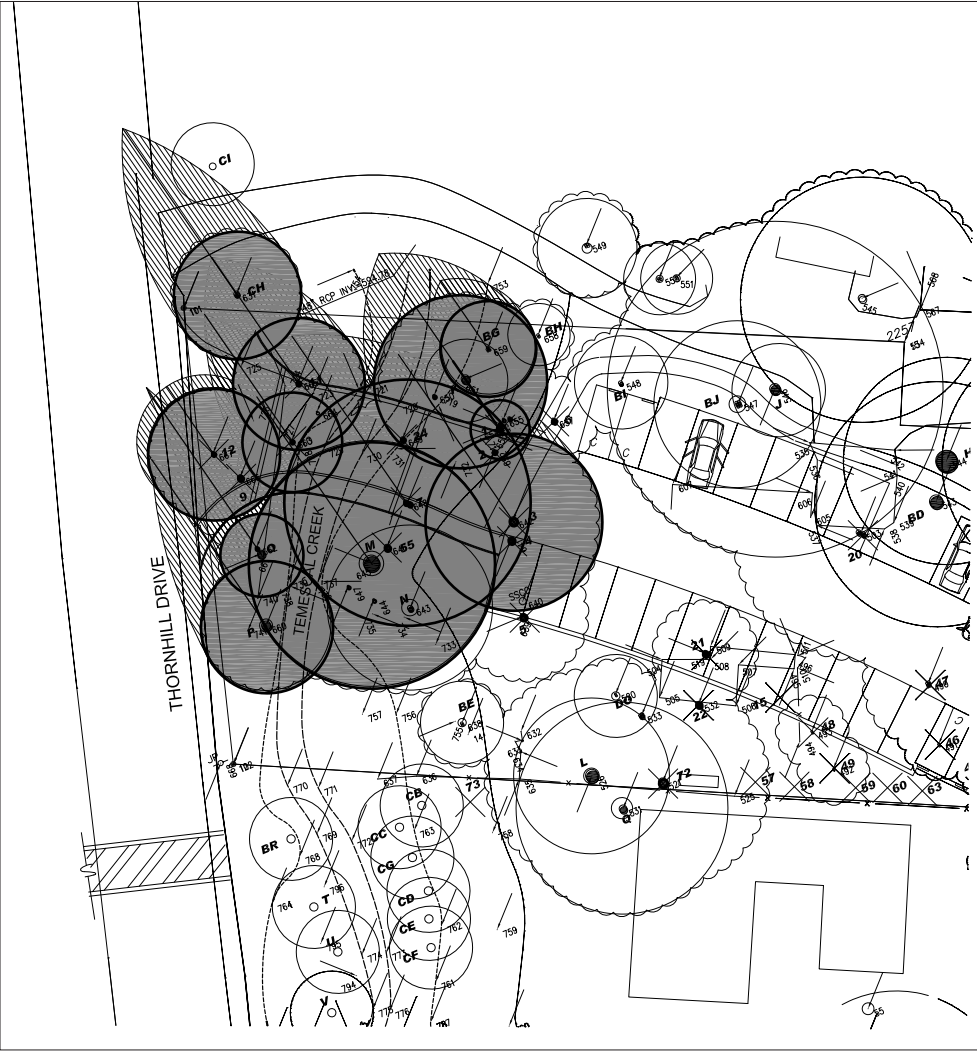
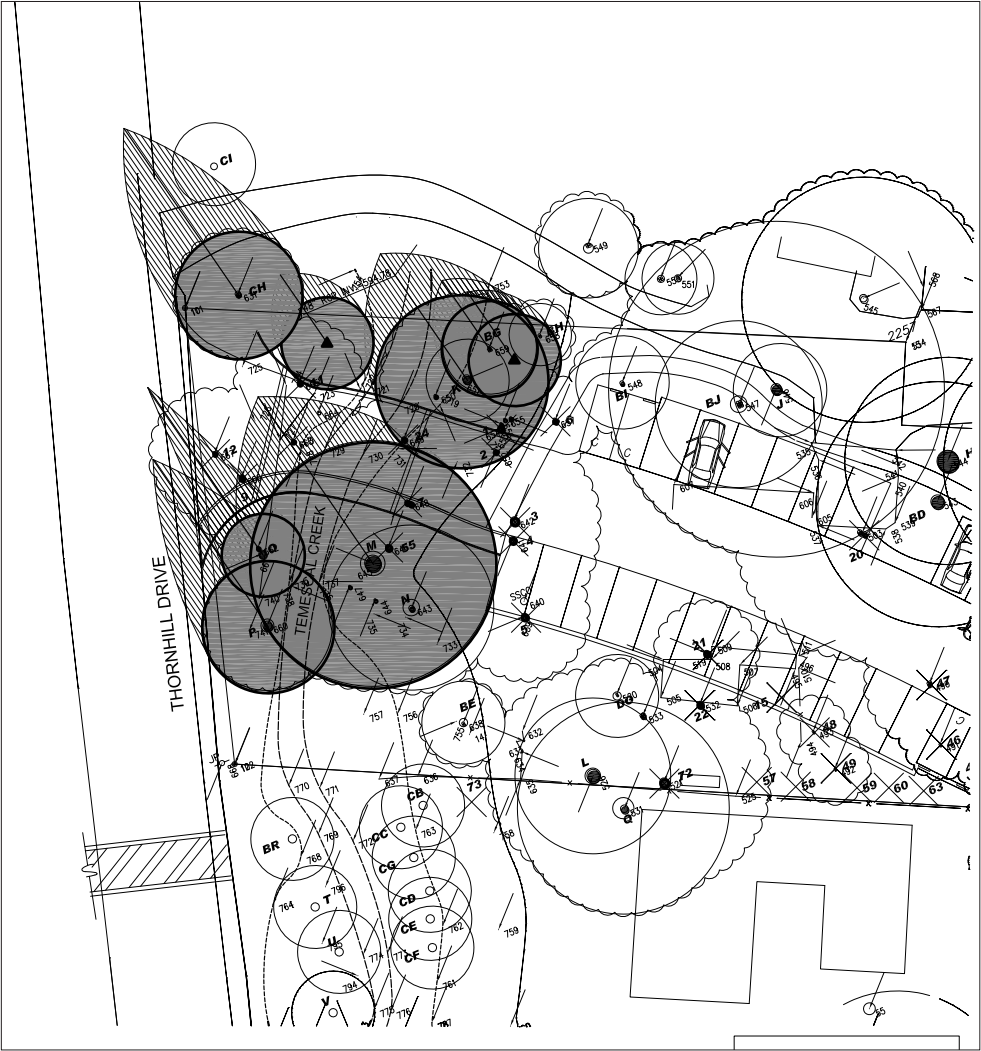


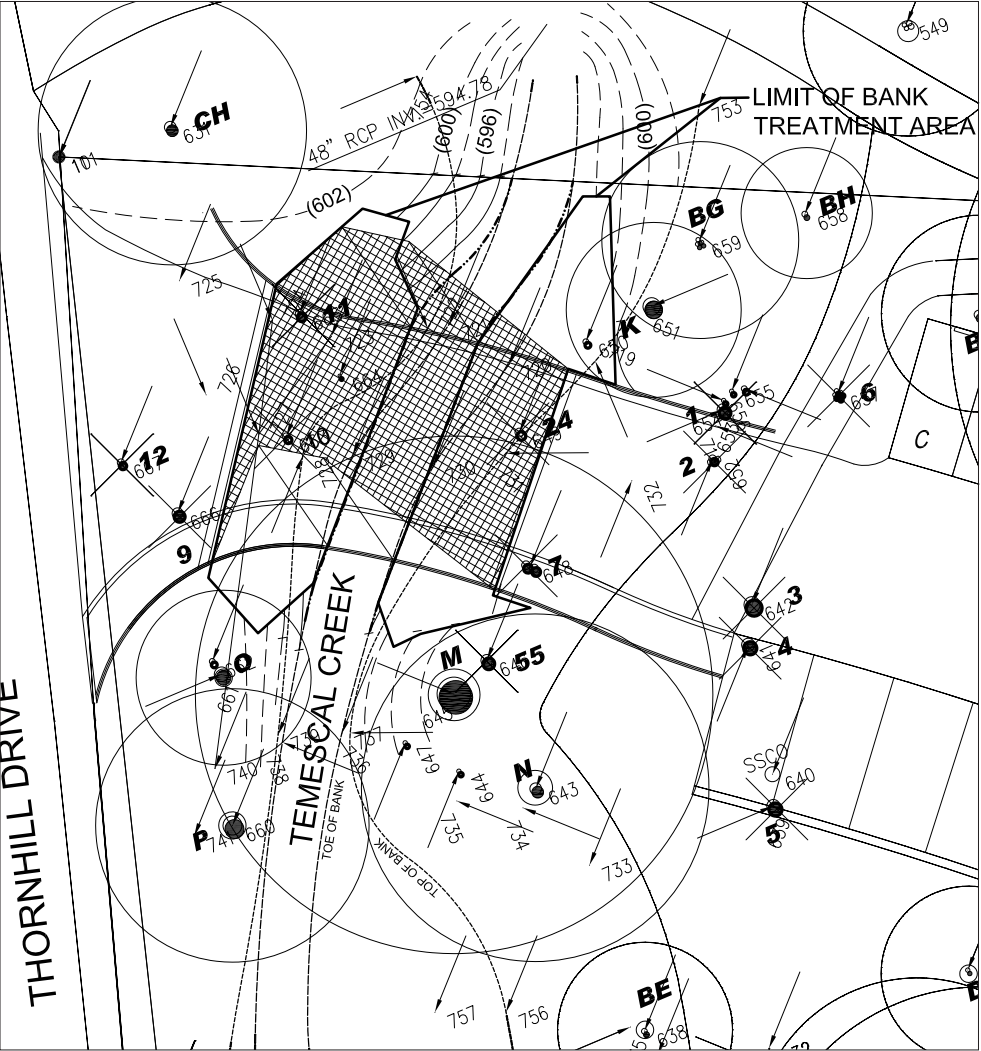
FIGURE 4.2-2
SHADING DURING FALL/SPRING EQUINOX - 9AM



A: EXISTING SHADING AT CREEK/BRIDGE



B: PROPOSED SHADING AT CREEK/BRIDGE



C: PROPOSED BRIDGE SHADING

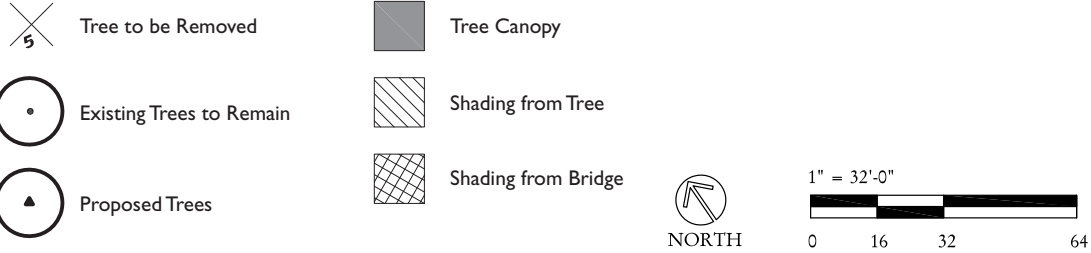
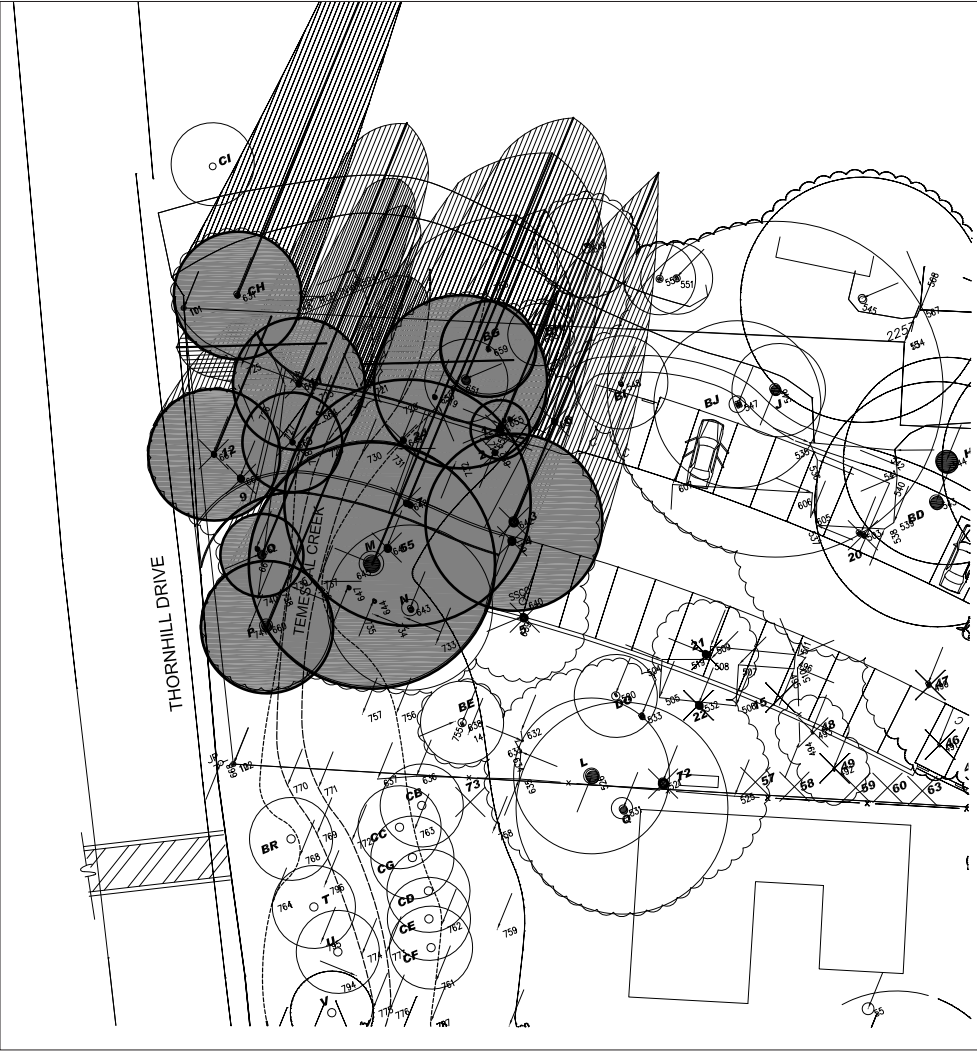
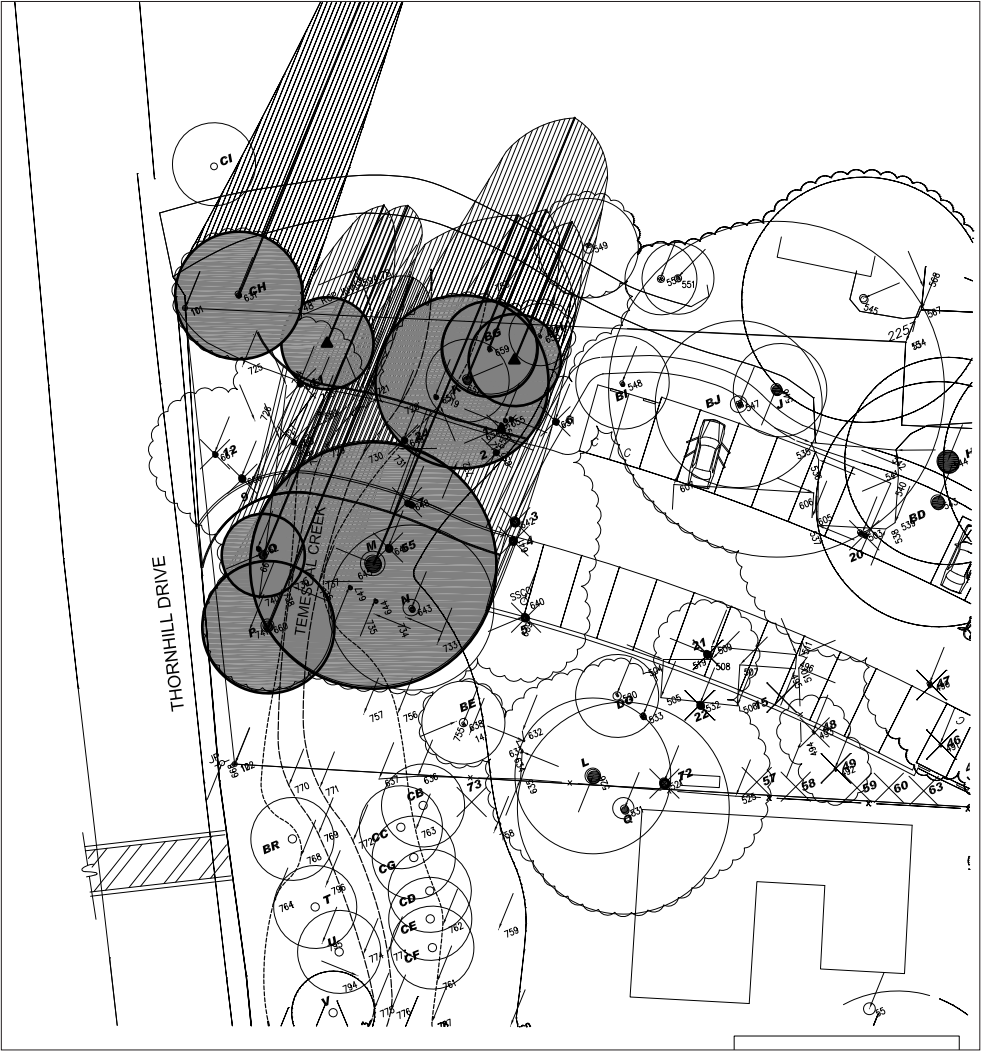


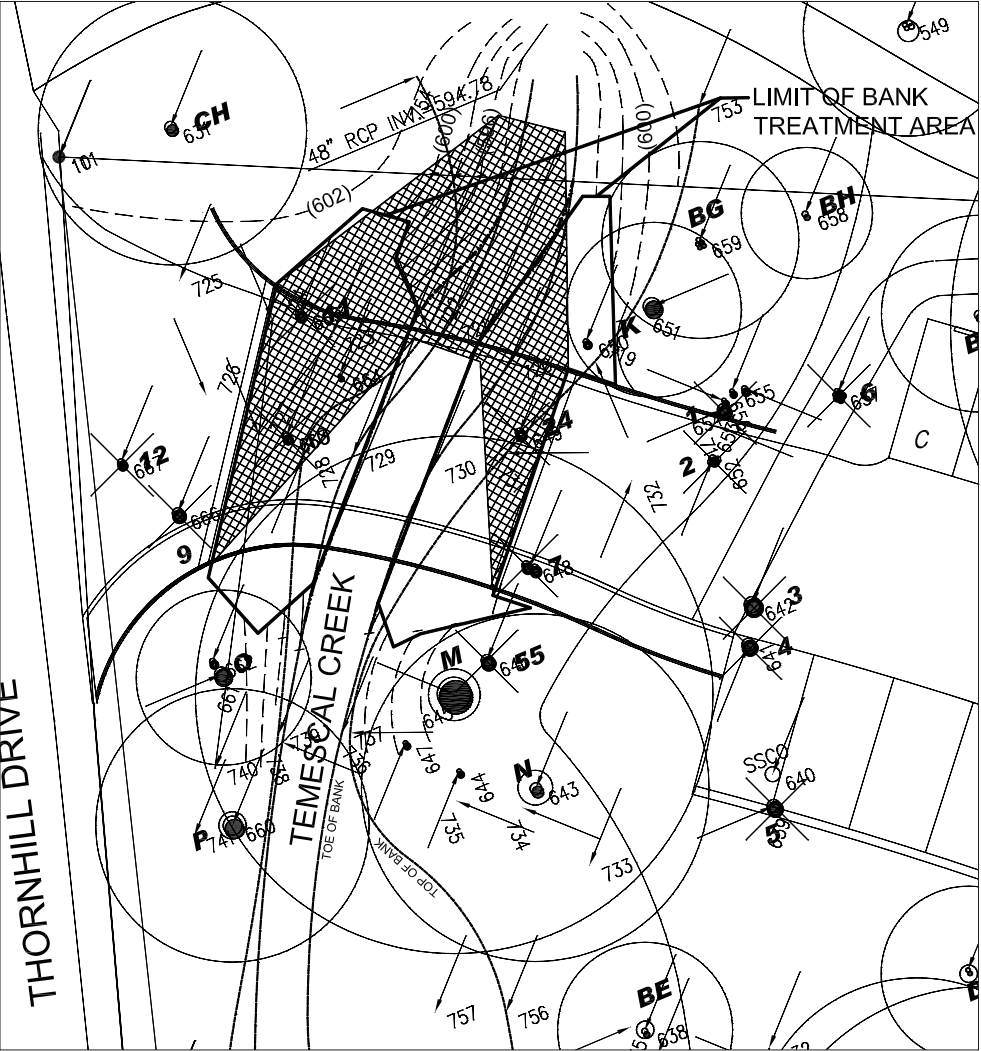
FIGURE 4.2-3
SHADING DURING FALL/SPRING EQUINOX - 12 NOON



A: EXISTING SHADING AT CREEK/BRIDGE



B: PROPOSED SHADING AT CREEK/BRIDGE



C: PROPOSED BRIDGE SHADING

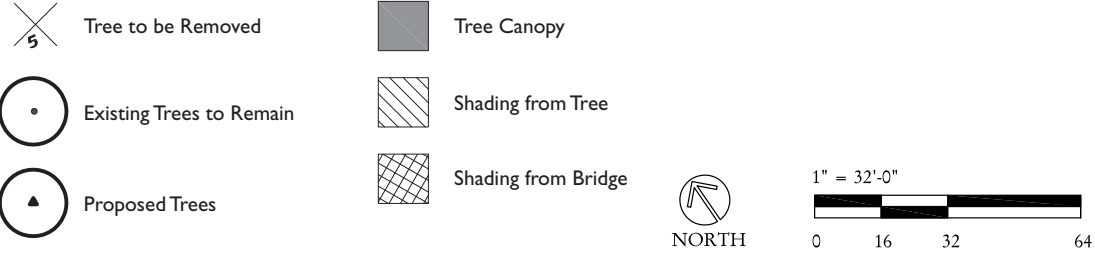
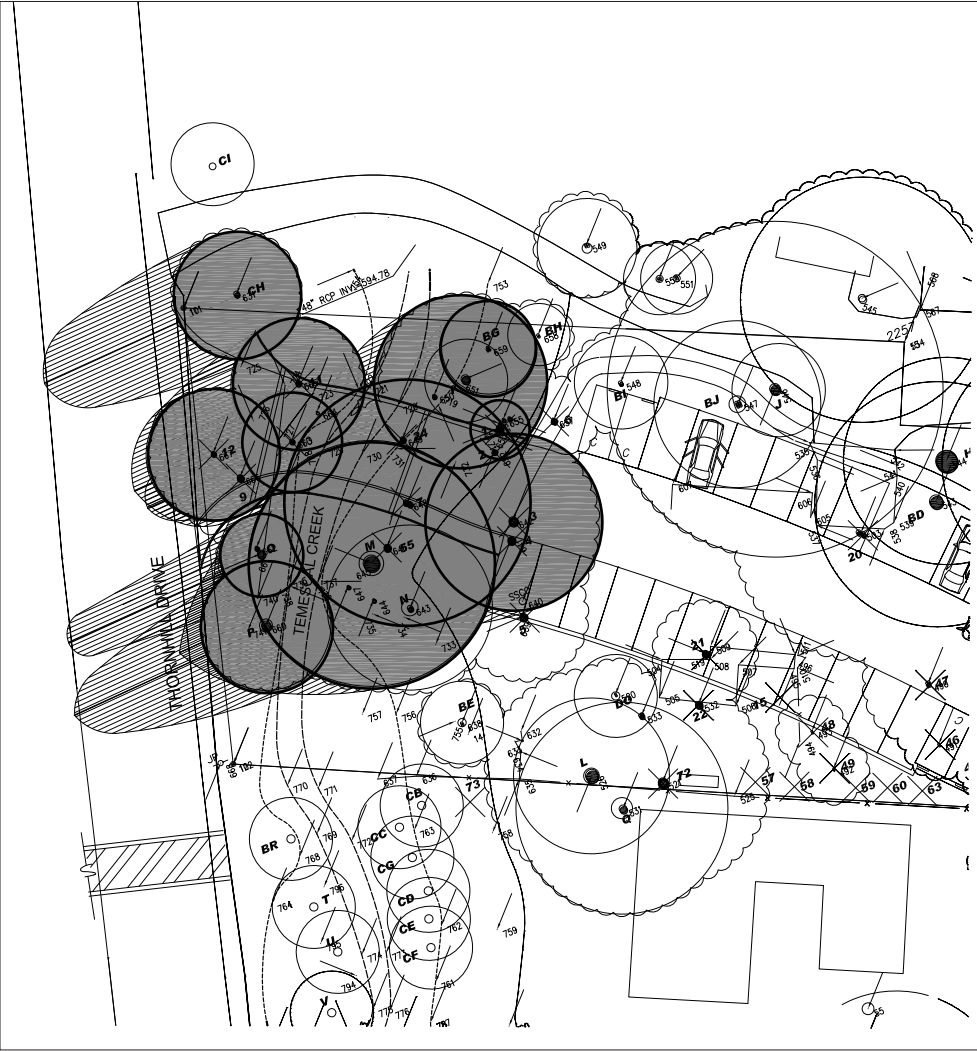
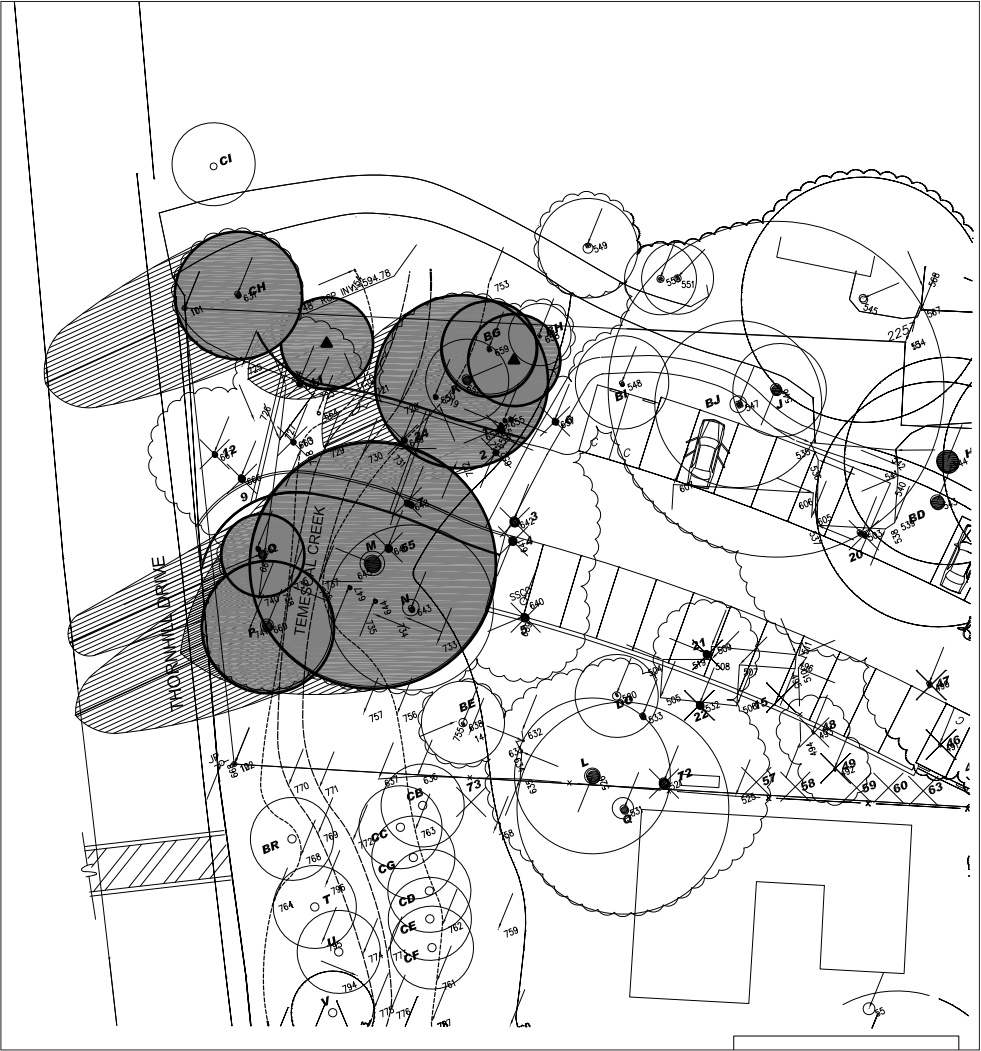


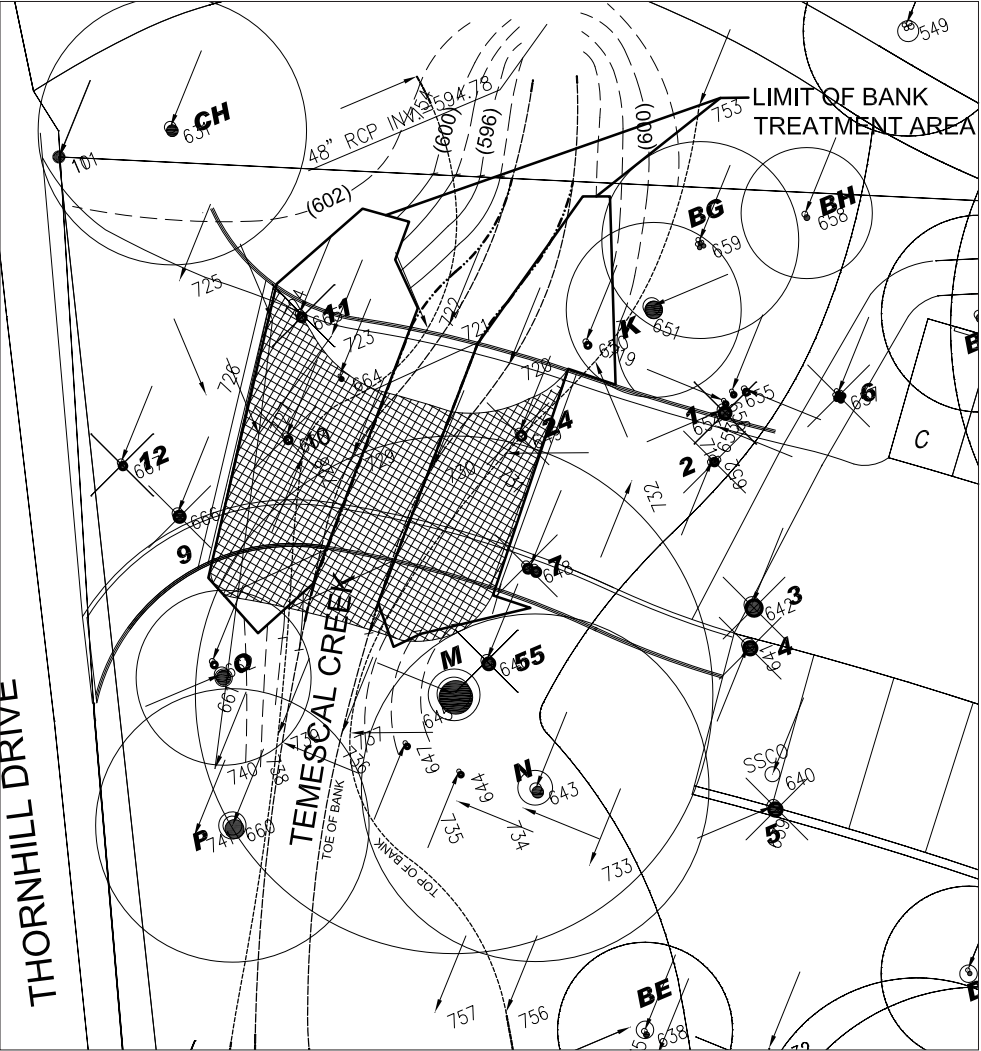
FIGURE 4.2-4
SHADING DURING FALL/SPRING EQUINOX - 3PM



A: EXISTING SHADING AT CREEK/BRIDGE



B: PROPOSED SHADING AT CREEK/BRIDGE



C: PROPOSED BRIDGE SHADING

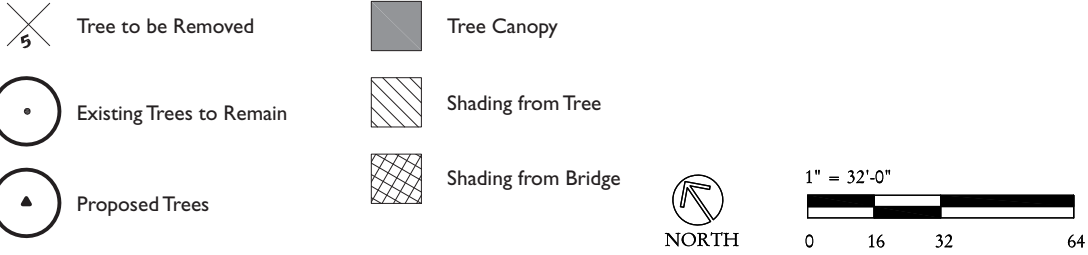
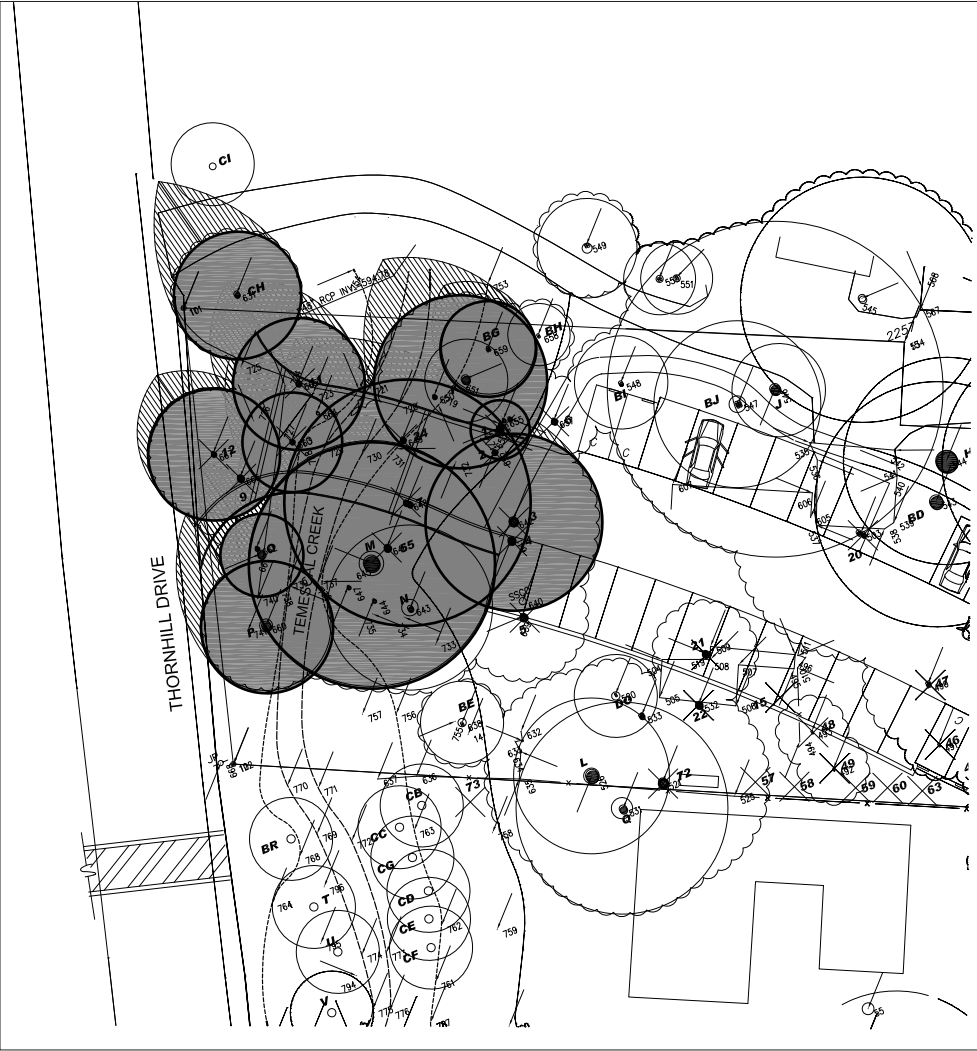
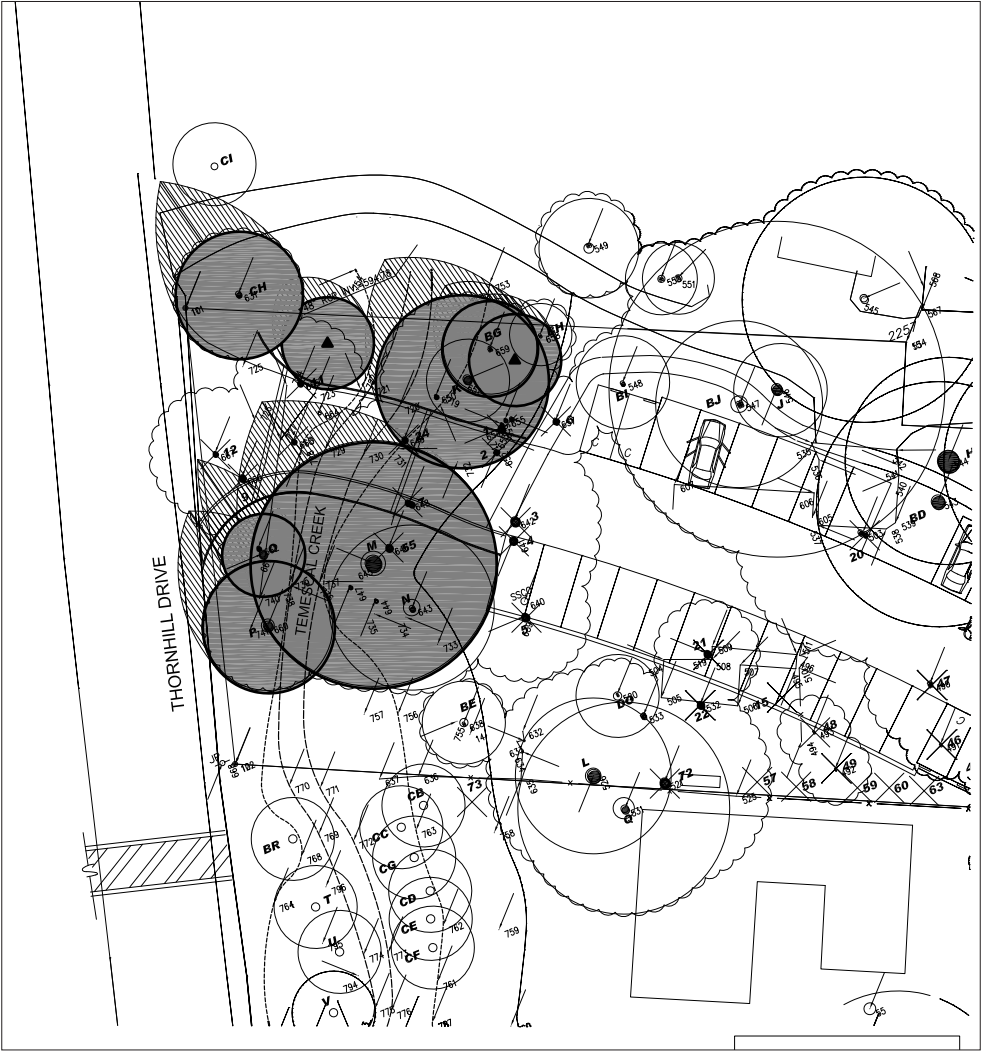


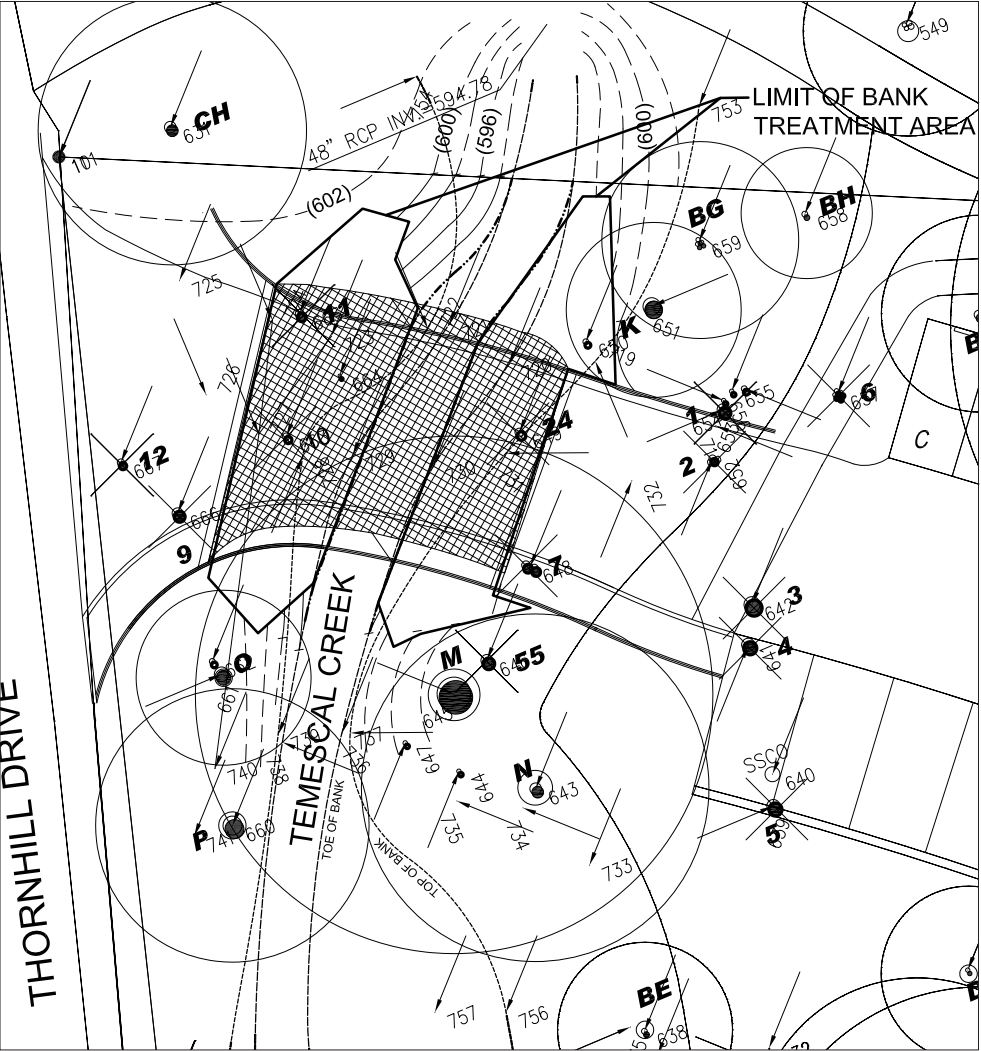
FIGURE 4.2-5
SHADING DURING SUMMER SOLSTICE - 9AM



A: EXISTING SHADING AT CREEK/BRIDGE



B: PROPOSED SHADING AT CREEK/BRIDGE



C: PROPOSED BRIDGE SHADING

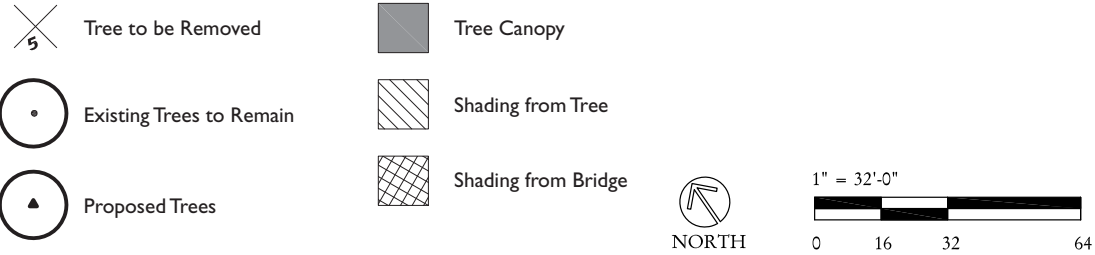


FIGURE 4.2-6
SHADING DURING SUMMER SOLSTICE - 12 NOON

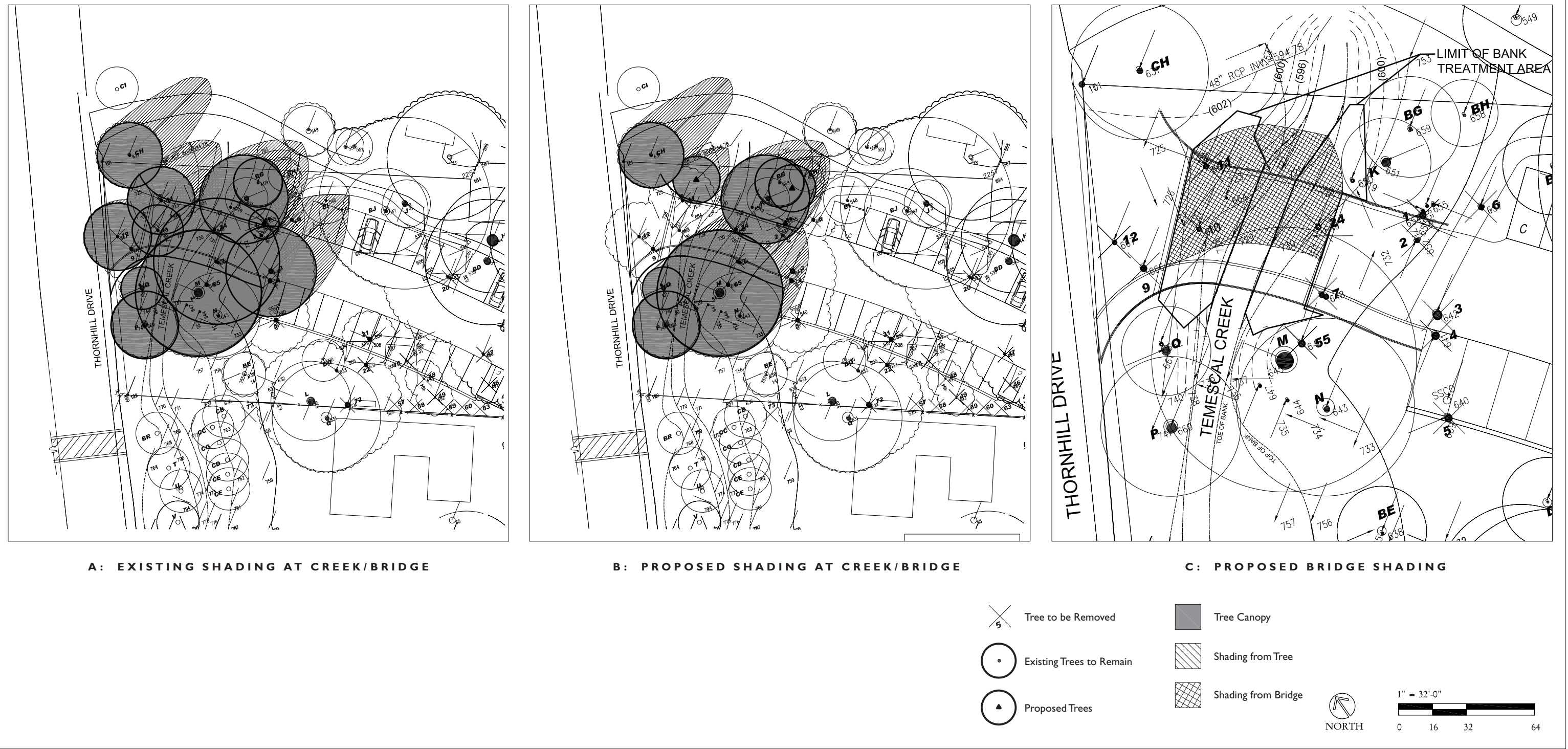
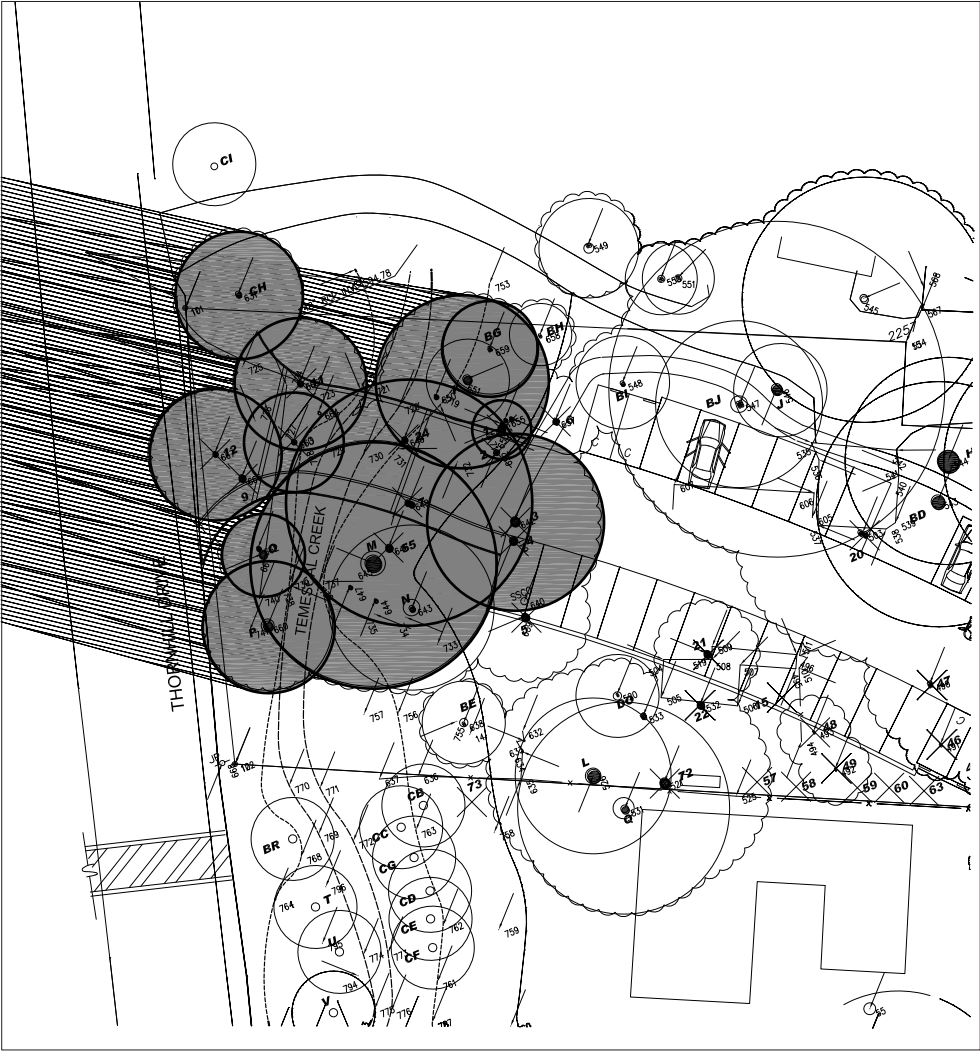
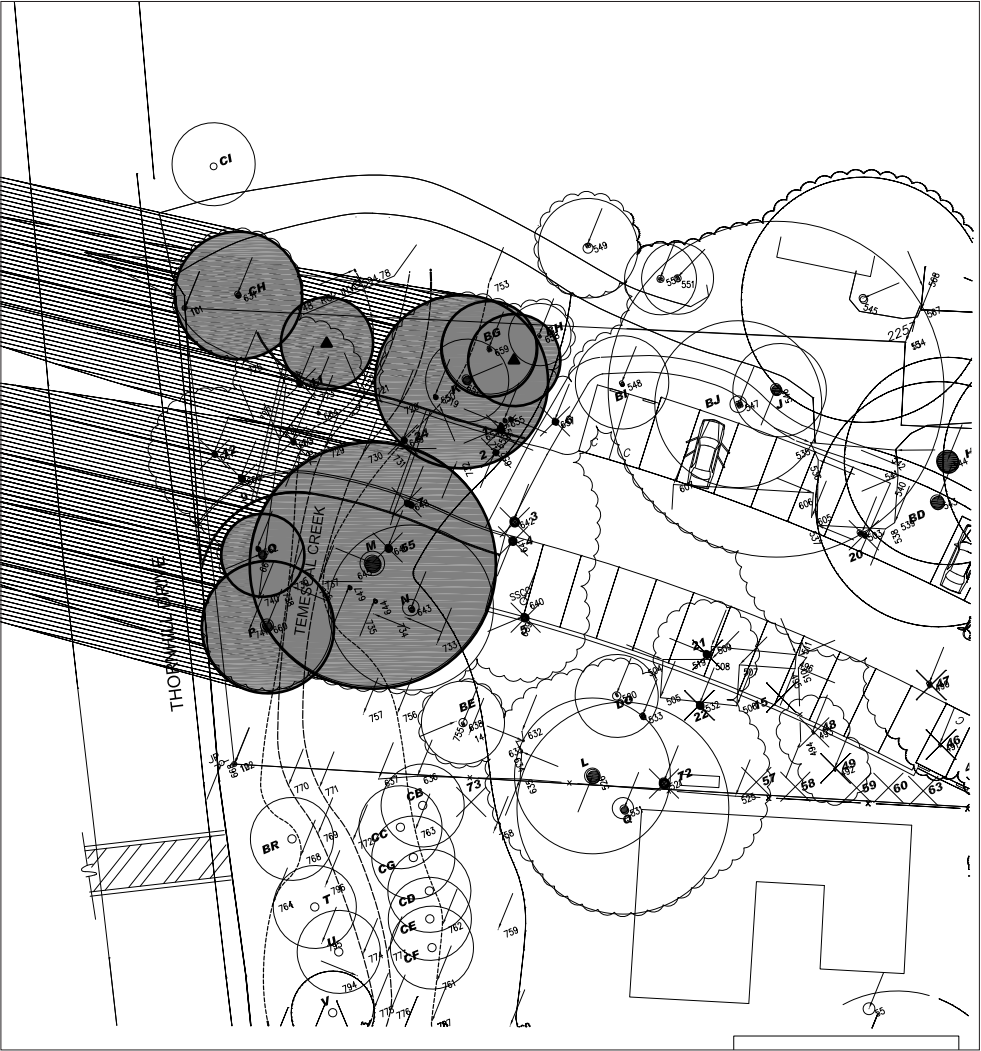


FIGURE 4.2-7

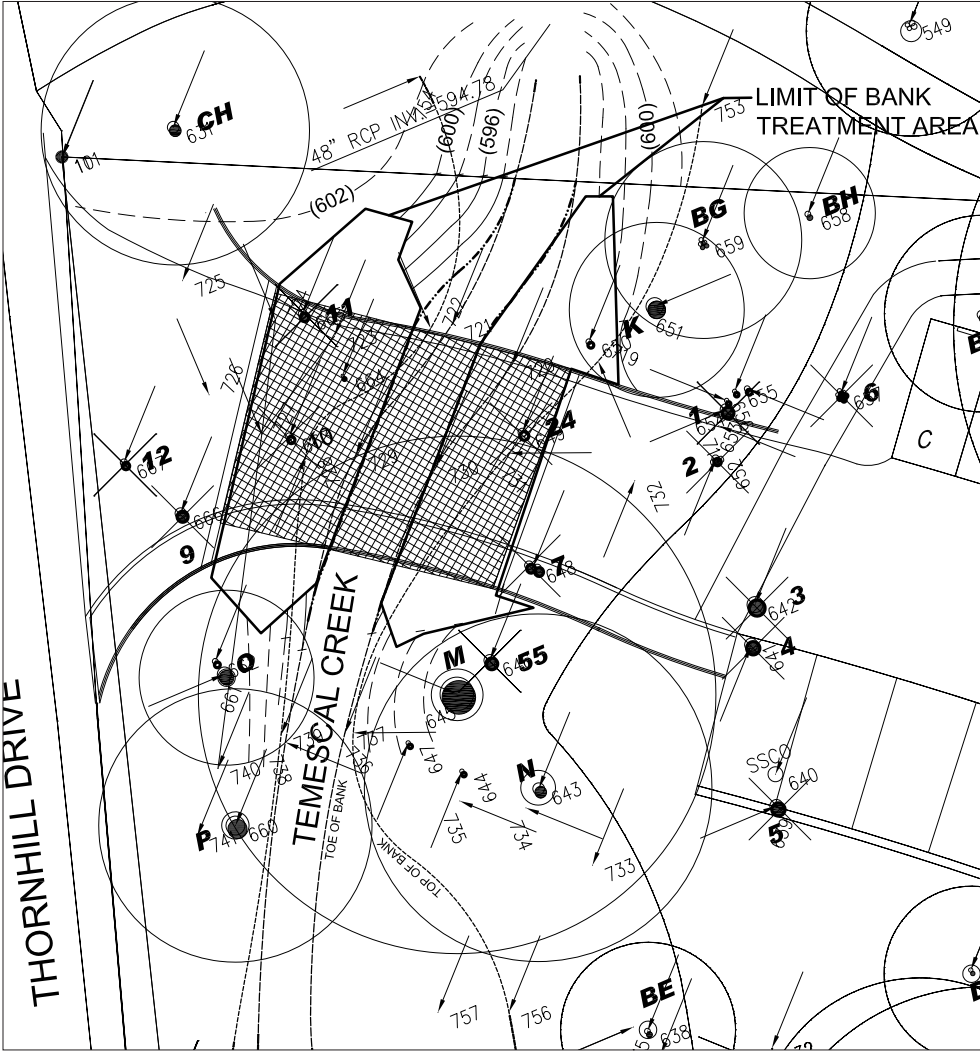
SHADING DURING SUMMER SOLSTICE - 3PM



A: EXISTING SHADING AT CREEK/BRIDGE



B: PROPOSED SHADING AT CREEK/BRIDGE



C: PROPOSED BRIDGE SHADING

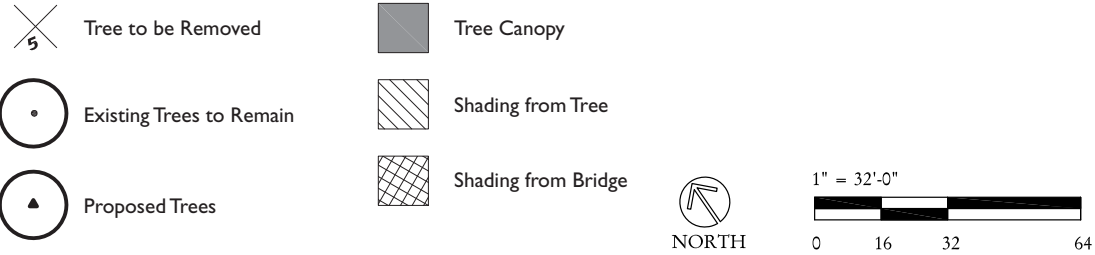
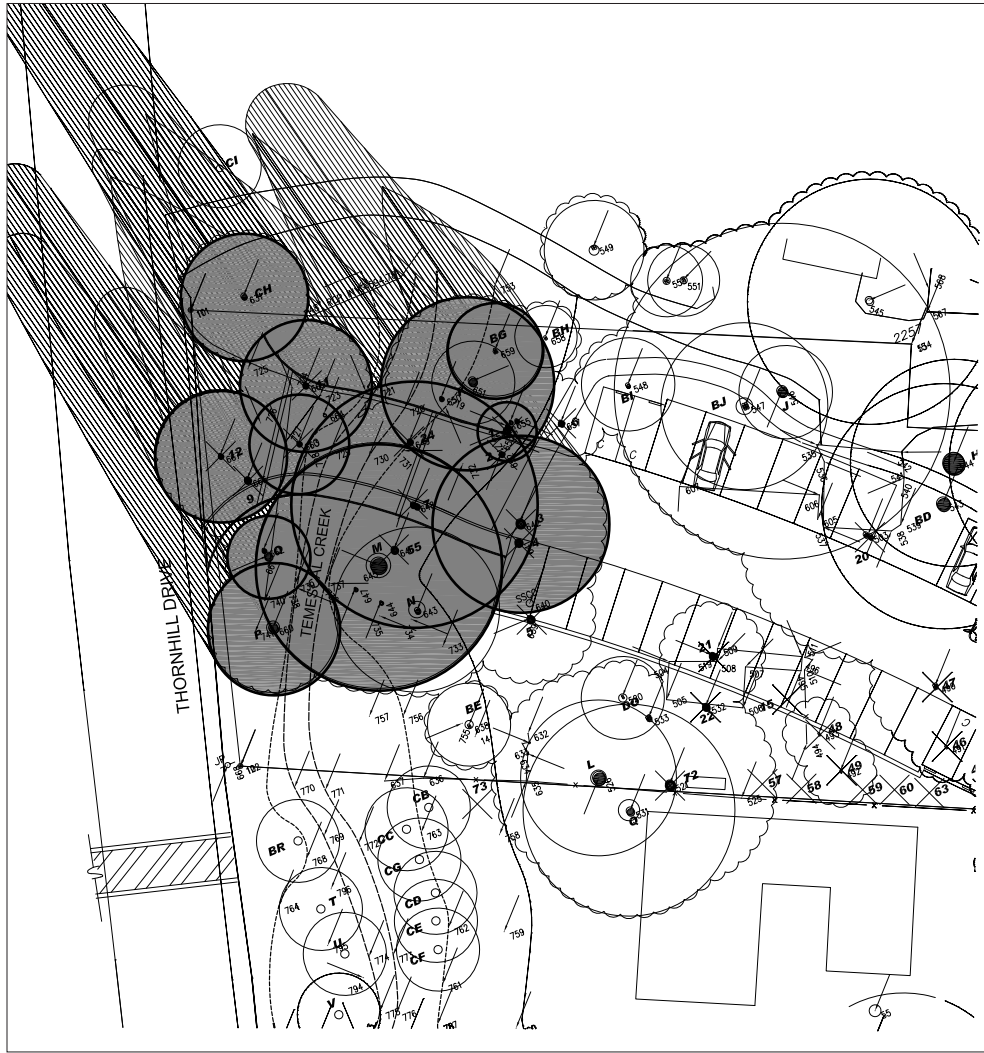
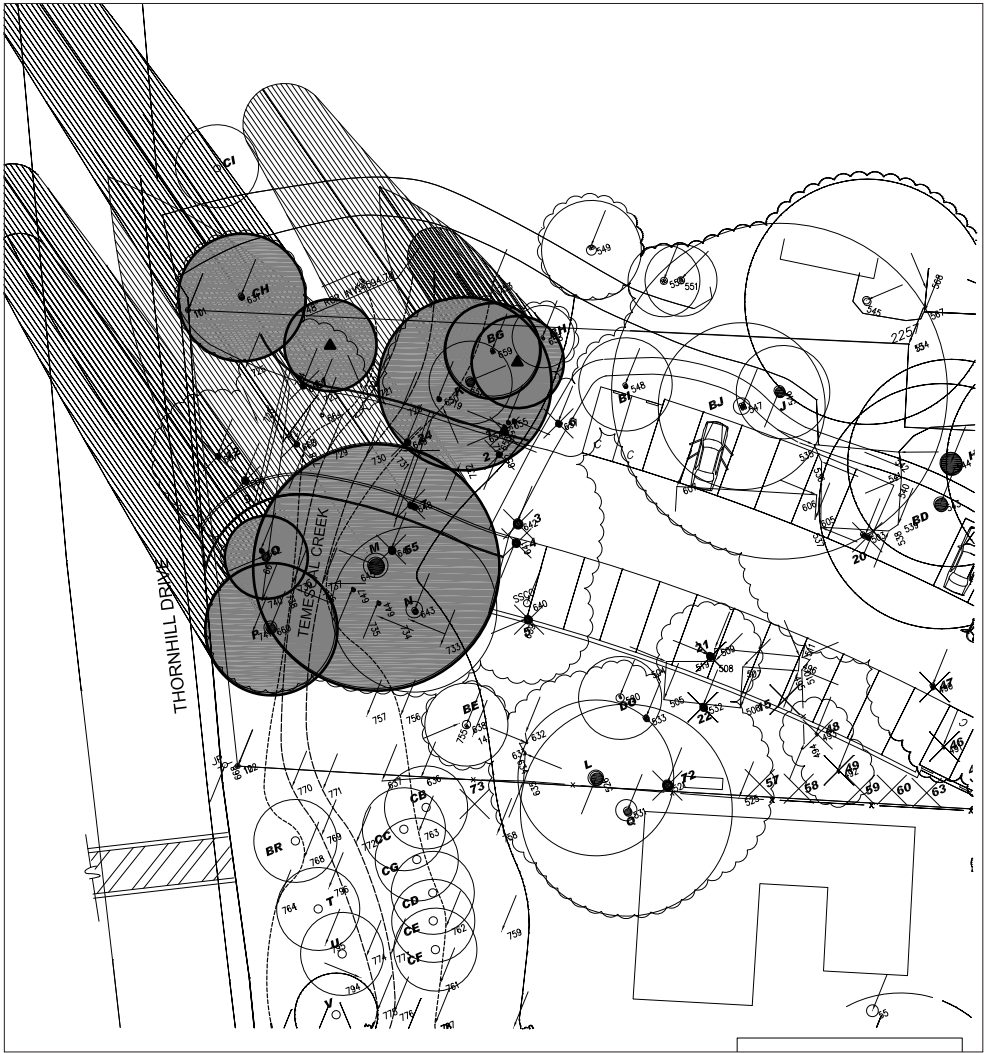


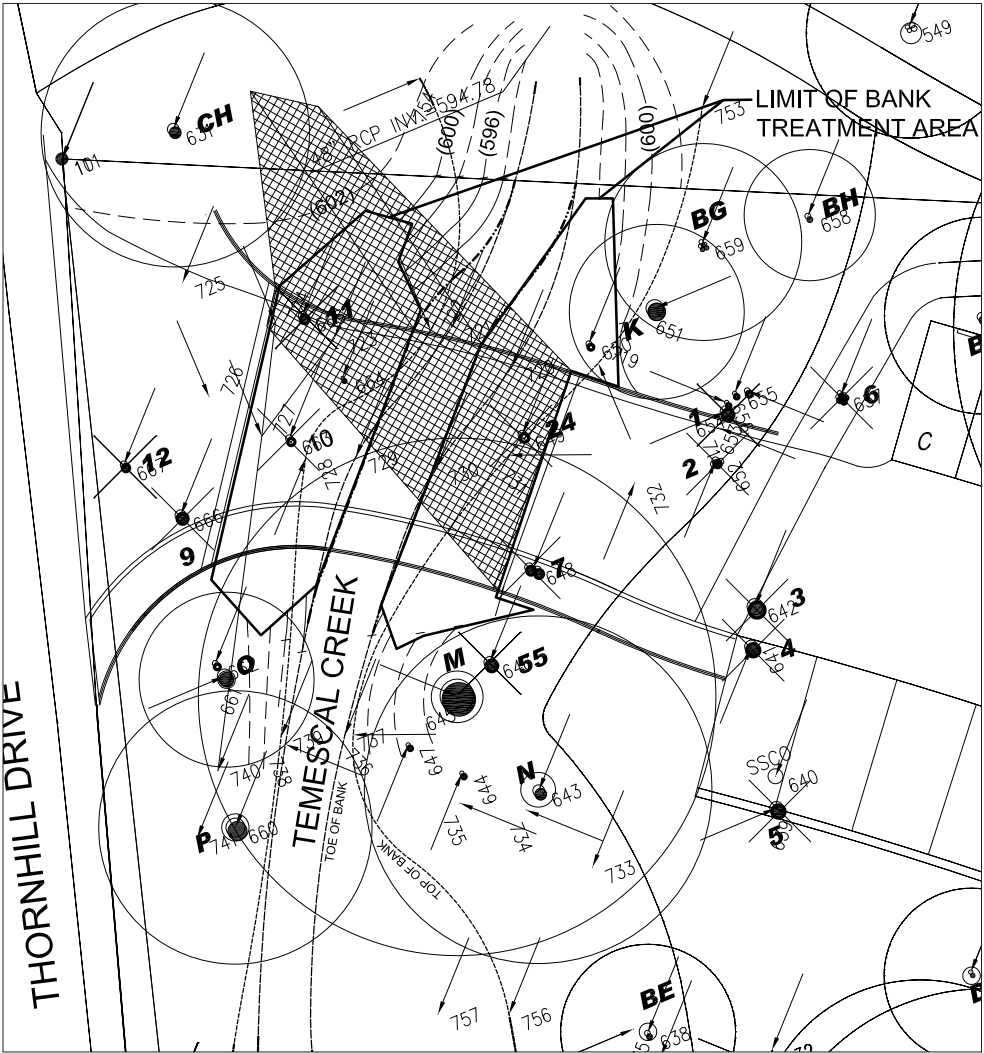
FIGURE 4.2-8
SHADING DURING WINTER SOLSTICE - 9AM



A: EXISTING SHADING AT CREEK/BRIDGE



B: PROPOSED SHADING AT CREEK/BRIDGE



C: PROPOSED BRIDGE SHADING

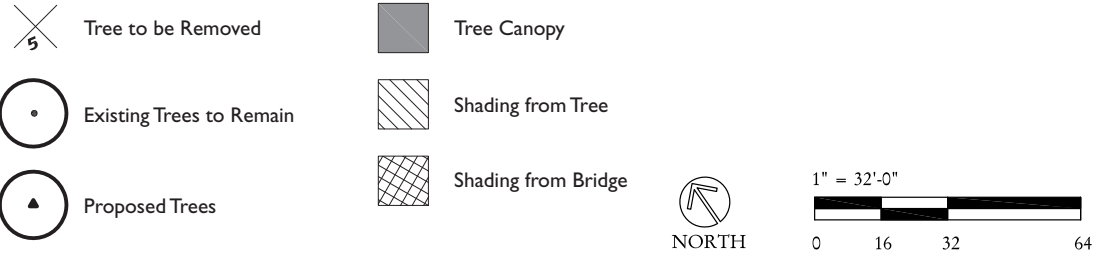


FIGURE 4.2-9
SHADING DURING WINTER SOLSTICE - 12 NOON

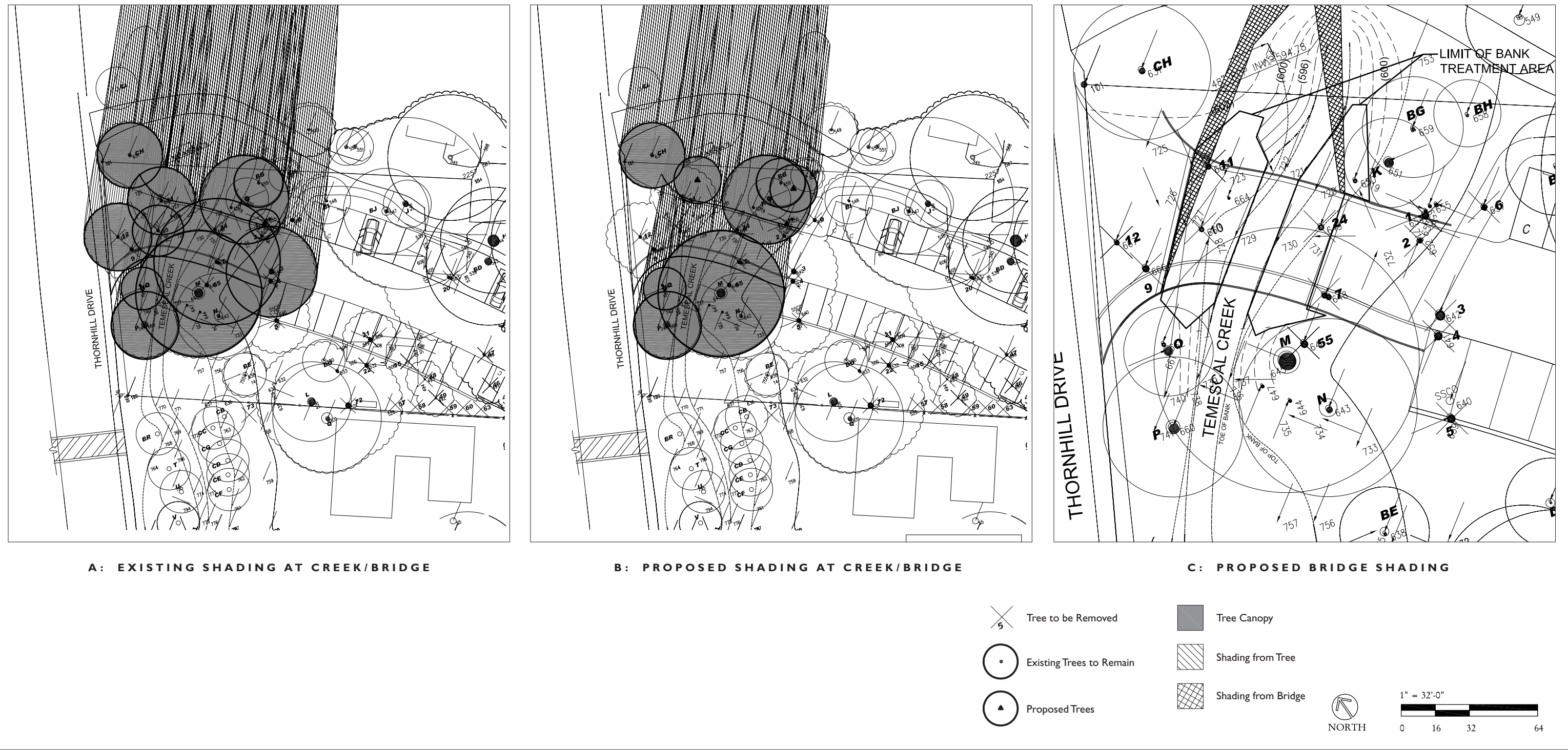


FIGURE 4.2-10

SHADING DURING WINTER SOLSTICE - 3 PM

During the spring and fall equinoxes, morning shadows fall in a northwesterly direction, resulting in shade over Thornhill Drive. At noon, shadows would extend in a northerly direction shading small areas of Thornhill Drive. At 3:00 p.m., the shadows fall in a northeasterly direction over the adjacent property located at 5940 Thornhill Drive. Shadows from the project would extend in the same directions as described above, but due to removal of trees, some areas previously shaded by trees would be open to daylight, including areas of Thornhill Drive and the property located at 5940 Thornhill Drive. During the spring and fall equinoxes, bridge shadows would generally fall under and close to the proposed bridge, due to similar angles of the sun at both times of the year. During the equinox periods, portions of the shadows fall to the west at 9:00 a.m., to the northeast at noon, and further to the northeast at 3:00 p.m.

During the summer solstice, the shading at 9:00 a.m. extends from the project site in a westerly direction across Thornhill Drive. At noon, shadows fall in a northerly direction, covering portions of the project site, Thornhill Drive, and the driveway to 5940 Thornhill Drive. At 3:00 p.m., the shadows fall in an easterly direction, and extend onto the property located at 5940 Thornhill Drive. Areas previously shaded by trees would be open to daylight, including areas of Thornhill Drive and the property located at 5940 Thornhill Drive. During the summer solstice, shading from the sun is minimal. The majority of shadows fall directly under the bridge with portions of the shadows falling to the west at 9:00 a.m., slightly to the northeast at noon, and further to the northeast at 3:00 p.m.

The greatest shading resulting from trees within the project site occurs during the winter solstice when the sun is lowest on the horizon. At 9:00 a.m., tree shadows fall in a northwesterly direction across Thornhill Drive to property across the street from the project site. Due to the direction of falling shadows and the positioning of the bridge, shadows under the bridge fall under the structure. At noon, tree shadows fall in a northerly direction, and cover large areas of Thornhill Road and the property at 5940 Thornhill Drive. Shadows cast by the bridge fall in a northerly direction extending over the northern

creek bank. At 3:00 p.m., tree shadows fall in a northeasterly direction and cover a large portion of the property at 5940 Thornhill Drive. Bridge shadows extend in a northerly direction to the property at 5940 Thornhill Drive.

As previously noted, because trees would be removed under the proposed project, shadows cast by the trees under the proposed project would be reduced when compared to the existing shading patterns, and natural light would be able to reach areas previously shaded. However, the shadows cast by the proposed bridge would result in an area, approximately 12 to 14 feet wide (476 square feet), directly under the proposed bridge receiving little or no light throughout the year.² The effect of the permanent shading would result in little or no growth of vegetation, and a permanent loss of riparian habitat. To offset the impact of the permanent shading under the proposed bridge, the proposed bioengineering treatments, as shown in Figure 3-11, include construction of live crib walls and vegetated soil lifts with biodegradable coir or non-woven geotextile fabric as appropriate, on both creek banks directly under and adjacent to the proposed bridge. The use of this material would provide riparian habitat under the bridge where sunlight can reach, but also provides stabilization and erosion control in the area under the bridge where no habitat can survive. Incorporation of the proposed Planting Plan and stabilization features along the creek corridor, including the bioengineering treatments and the use of native species plantings elsewhere on the creek banks would serve to improve the overall native habitat values, with the exception of the loss of 476 square feet of riparian habitat. As a result, a *potentially significant impact* would occur. This impact would be reduced to a less-than-significant level with the implementation of Mitigation Measure BIO-2.

² The area receiving little or no sunlight under the bridge was calculated by multiplying the width of the area affected (approximately 14 feet) and the length of the slope of the creek bank (approximately 17 feet), as shown on Figure 3-11 of this EIR. The area of one creek bank is approximately 238 square feet. Multiplied by two, to account for both creek banks, the total area that would receive little or no sunlight under the bridge would total approximately 476 square feet.

The construction of a bridge over Temescal Creek may require the use of several pieces of heavy, mechanized equipment, as shown on Table 4.2-3. The equipment listed, and the estimated duration of use, provides an approximation for purposes of evaluating the potential environmental impacts, and does not constitute a final list of construction equipment or duration of use.

As shown in Table 4.2-3, construction activities in or near the creek can be divided into six phases to clearly show what equipment may be used, and for how long. The phases include site preparation, creek dewatering, pier installation, bridge grade beam installation, bioengineering treatment installation, and bridge installation/construction.

Mechanized equipment that may be used in or near the creek channel include a backhoe, loader, dump truck, concrete mixer and concrete pumper. Larger equipment may include excavators and rough terrain cranes that vary in size.

Temporary dewatering of the creek may be required at the time of construction. A temporary coffer dam, consisting of sandbags, may be constructed upstream of the construction area, and a submersible pump may also be used to divert water into a rigid or flexible pipe to be released downstream of the construction area. It is expected that hand tools would be used to install the sandbags, pump and pipe and no mechanized equipment would be required. Impacts to riparian habitat resulting from dewatering are discussed above in response to criteria 1 and 3.

Construction of the bridge could be completed in one of three ways that would require slightly different equipment, as estimated under the bridge installation/construction phase. In short, a rough terrain crane would be required for installation of concrete or steel planks, but if the concrete for the bridge deck would be poured on-site, a concrete mixer and pumper would be required, in addition to a rough terrain crane.

TABLE 4.2-3 CONCEPTUAL EQUIPMENT NEEDS LIST

Construction Phase		Equipment	Size	Purpose	Approximate Duration	
1	Site Preparation	1 chipper and truck to haul (commercial tree service)	Standard	Removal of trees	2-3 weeks	
		1 loader	Standard	Grading and brush removal	1 week	
		1 small scraper		Grading and brush removal	1 week	
2	Creek Dewatering	No mechanized vehicles would be required for installation of coffer dam				
3	Pier Installation	1 excavator-mounted drill	80,000 lbs	Drill holes for piers	1 week	
		1 concrete mixer	Standard	Mix concrete for pier		
		1 concrete pumper	Standard	Pump concrete from mixer to location of pier		
		1 10-yard dump truck		Relocation of spoils to on-site storage area		
4	Grade Beam Installation	1 backhoe	Standard	Dig trench for placement of grade beam	1 week	
5	Bioengineering Treatment Installation	1 excavator	Standard	Removal/regrading of creek banks	2 weeks (1 week per side)	
		1 loader	Standard	Installation of base rock		
		1 rough terrain crane	80,000 lbs	Installation of wooden logs		
6	Bridge Installation/Construction	Option 1	1 rough terrain crane	80,000 lbs	Installation cross beam and concrete planks	1 week
		Option 2	1 rough terrain crane	80,000 lbs	Installation of cross beam and steel planks	1 week
			1 rough terrain crane	80,000 lbs	Installation of cross beam	2 weeks
		Option 3	Concrete mixer		Mixing concrete for deck	
			Concrete pumper		Pump concrete to bridge for pouring	

Source: DC&E, and McNely Construction Company, October 2010.

The Grading, Drainage and Paving Plan, Figure 3-12, shows the final grading of the project site including the grading of the proposed bridge touchdown areas, and the roadway adjacent to the creek. The area that could be disturbed by construction activities and installation of project components would be located within close proximity to areas to be used for the driveway. Construction activities would occur after grading of the area has been completed. It is expected that construction equipment would be placed on both sides of the creek, and possibly in the creek bed, to remove soil and install bioengineering treatments. Staging areas and storage of construction materials would be located within the St. John's Church property in the area currently occupied by the residential structure located at 5928 Thornhill Drive.

The use of mechanized equipment in or near the creek channel is inconsistent with implementation of Standard Condition of Approval HYD-5 (included in Chapter 4.3) that requires all work in or near creek channels to be performed with hand tools. As a result, this project is considered to have a *potentially significant* impact on riparian habitat. This impact would be reduced to a less-than-significant level with through the implementation of Mitigation Measure BIO-3a and BIO-3b, as well as Standard Conditions of Approval HYD-1, HYD-5(m), HYD-8(a), and HYD-10(b).

Impact BIO-2: Shadows resulting from the placement of a vehicle bridge over Temescal Creek would result in the loss of approximately 476 square feet of riparian habitat.

Mitigation Measure BIO-2: Removal of invasive exotics and replanting of the creek corridor would generally serve to improve existing habitat values of the riparian corridor on the site, but compensatory mitigation would be required for the permanent loss of approximately 476 square feet of low quality riparian habitat. Options for achieving this off-site mitigation requirement would consist of one of the following:

1. Preparing and implementing an off-site creek restoration program funded by the applicant that would serve to restore a minimum of 476 square feet of currently culverted creek corridor in Oakland.

The program would be developed by a qualified creek restoration specialist that meets with the approval of the City, CDFG, RWQCB, and Corps, and secures any required permits as part of program implementation. The off-site restoration program shall specify performance criteria, maintenance and long-term management responsibilities, monitoring requirements, and contingency measures. Monitoring shall be conducted by the qualified creek restoration specialist for a minimum of five years and continue until the identified success criteria are met.

2. Having the applicant make an in-lieu contribution to cover the costs of restoring a minimum of 476 square feet of riparian habitat at an off-site location as specified by the City of Oakland.

Significance after Mitigation: The implementation of this mitigation measure would reduce the impact to a *less-than-significant* level.

Impact BIO-3: The construction of the proposed bridge and bioengineering treatments of the creek banks may require the use of heavy motorized equipment that could have an adverse impact on the riparian habitat of Temescal Creek.

Mitigation Measure BIO-3a: Prior to the issuance of a grading permit, the project applicant shall submit a study to the City, for its review and approval, which assesses the feasibility of using hand tools for work in/near the creek corridor. If the City determines the use of hand tools is infeasible, the project applicant shall submit a construction plan, for City review and approval, whose goal is to minimize the use of and impacts from mechanized equipment in/near the creek corridor to the maximum feasible extent. The project applicant shall implement the approved plan. The plan shall provide, at a minimum, the following:

- ◆ Types and numbers of motorized equipment to be used in or near creek channel
- ◆ Duration of equipment use in or near the creek channel

- ◆ Delineated areas where mechanical equipment would be used in or near the creek channel
- ◆ Specific measures designed to minimize the impacts to the creek corridor

Mitigation Measure BIO-3b: Prior to issuance of a grading permit, the project applicant shall develop a creek restoration plan for City review and approval. The applicant shall implement the approved plan. The goal of the plan is to restore the disturbed areas to the pre-construction conditions or better. Immediately following construction in or near the creek channel, disturbed areas will be restored. Specific techniques used for such restoration may include, but are not limited to, the use of rototilling quality compost 8 inches into the soil to promote a living soil structure, installation of native plant materials, and covering the soil surface with biodegradable erosion control fabric and a 3-inch layer of coarse mulch. If needed to temporary control erosion and sedimentation into the creek, straw wattles, silt fences, compost socks or similar measures which would prevent erosion as defined in the Stormwater Pollution Prevention Plan for the project.

Significance after Mitigation: The implementation of this mitigation measure would reduce the impact to a *less-than-significant* level.

E. Cumulative Impacts

This analysis evaluates whether the impacts of the Proposed Project, together with the impacts of past, present, pending and reasonably foreseeable future development, would result in a cumulatively significant impact on special-status species, wetlands and other waters of the U.S., or other biological resources protected by federal, state, or local regulations or policies (based on the significance criteria and thresholds presented earlier). This analysis then considers whether the incremental contribution of the Proposed Project to

this cumulative impact would be considerable. Both conditions must apply in order for a project's cumulative effects to rise to the level of significance.

The geographic context for analysis of cumulative impacts to biological resources in this DEIR encompasses the North Oakland hills, and specifically, the Montclair Village area.

The cumulative analysis considers the effect of the Proposed Project combined with past, present, pending and reasonably foreseeable projects in the defined geographic area. Past projects, i.e., the principal determinant of existing conditions in the area, which are developed and where natural communities have been disturbed—even where open space persists, have already caused adverse cumulative effects on biological resources. With the addition of current and other proposed projects, there is an existing cumulative impact *without* the Project, which could be considered to combine with the Proposed Project to increase the aggregate effect and be considered cumulatively significant.

However, relative to the CEQA baseline, the impacts of the proposed Project *do not* aggregate to breach the CEQA significance thresholds described elsewhere in the Draft EIR. There are no other reasonably foreseeable projects of this scope in the area,³ and, if there are, the cumulative effect on biological resources would be minimized as discussed above.

Environmentally protective laws and regulations, have been applied with increasing rigor since the early 1970s and include the California Endangered Species Act, Federal Endangered Species Act, and the Clean Water Act, as described in the *Regulatory Setting* earlier in this EIR chapter. The Proposed Project and other future projects within the cumulative geographic context are and would be required to comply with local, state, and federal laws and policies and all applicable permitting requirements of the regulatory and over-

³ Clevenger, Ann. Personal communication with DC&E, November 9, 2010.

sight agencies intended to address potential impacts on biological resources, including wetlands, other waters of the U.S., and special-status species. Additionally, new projects would be required to demonstrate that they would not have significant effects on these biological resources, although it is possible that some projects may be approved even though they would have significant, unavoidable impacts on biological resources.

The current impact analysis has shown that the Project has the potential for significant impacts on biological resources and that these impacts can be reduced to less-than-significant levels through the application of the City of Oakland's SCAs and proposed mitigation measures.

Specifically, no sensitive natural communities or special-status species occur on the site, and the project would not contribute to a cumulative loss of these sensitive resource types. Proposed development on the site would result in the loss of a number of protected trees, but these would be replaced by mostly native trees with greater habitat value to wildlife as part of the revegetation efforts along Temescal Creek and project landscape improvements. The removal of undesirable invasive species along the creek corridor, and establishment of native riparian and upland plantings would greatly improve the existing habitat values along Temescal Creek, and would serve to mitigate the loss of the invasive groundcover species currently growing on the creek bank under the proposed footprint of the new bridge. Measures recommended to mitigate potential impacts on sensitive biological and creek resources would be mitigated to *less-than-significant* levels.

When considered with impacts of past, present, pending and reasonably foreseeable future projects within the geographic context for this analysis, the minor incremental contribution of the Proposed Project to an already existing cumulative impact is not cumulatively considerable. Therefore, the cumulative effect of the Proposed Project on biological resources would be less-than-significant.

The project proposes construction of a new bridge over Temescal creek to provide primary site ingress and egress. Construction of the bridge would provide emergency access to the site and enable the construction of the new sanctuary to be located adjacent to the existing St. John's hall. Because of site constraints, including topography, property lines and biological resources, the project applicant believes construction and operation of the bridge as a component of the project would be necessary to achieve project objectives. As these project objectives are unique to the Church, a cumulative impact resulting in the City of Oakland allowing the construction of bridges over creeks would be *less than significant*.

4.3 HYDROLOGY AND WATER QUALITY

This section discusses existing hydrology and water quality conditions of the proposed project site, the standards of significance used to determine hydrology and water quality impacts, and an analysis of the effects that the proposed project would have on hydrology and water quality. Reports describing hydrology and water quality within the project site and in the vicinity of the project site is included in Appendix G of this EIR.

A. Regulatory Setting

1. Federal Laws and Regulations

The Clean Water Act (CWA) has nationally regulated the discharge of pollutants to waters of the United States from any point source since 1972. In 1987, amendments to the Clean Water Act added section 402(p), which established a framework for regulating nonpoint source (NPS)¹ storm water discharges under the National Pollutant Discharge Elimination System (NPDES). The Phase I NPDES storm water program regulates storm water discharges from major industrial facilities, large and medium-sized municipal storm sewer systems (those serving more than 100,000 persons), and construction sites that disturb five or more acres of land.

In 1999, the U.S. Environmental Protection Agency (US EPA) revised the NPDES program to include the Phase II NPDES storm water program. The Phase II program expanded the Phase I program by requiring “small” municipal storm sewer systems (those serving populations less than 100,000) and construction sites that disturb between 1 and 5 acres of land to implement programs and practices to control polluted storm water runoff through a site-specific plan called the Storm Water Pollution Prevention Plan (SWPPP).

¹ Nonpoint source (NPS) pollution, unlike pollution from a single point of source such as a sewage treatment plant, comes from dispersed and uncontrolled sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even underground sources of drinking water.

The Phase II NPDES program was developed for regulating water quality affected by smaller municipal storm sewer systems and construction projects not covered by the Phase I NPDES program.

Section 303(d) of the federal Clean Water Act requires states to develop lists of impaired water bodies and the constituents for which the water body is impaired. The states must then develop a total maximum daily load (TMDL) for the constituent or determine another method to regulate a listed pollutant appropriately. The US EPA must approve the impairment lists and TMDLs determined by states. The TMDL program examines water quality problems, identifies pollutant sources, and establishes methods to provide solutions. A TMDL defines the quantity of pollutant a water body can tolerate while still meeting water quality standards. Development of TMDLs accounts for all potential sources of a pollutant (e.g. wastewater treatment discharge and urban and agricultural runoff).

2. State Laws and Regulations

a. Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act establishes the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) as the principal state agencies having primary responsibility for coordinating and controlling water quality in California. The Porter-Cologne Act establishes the responsibility of the RWQCB for adopting, implementing, and enforcing water quality control plans (Basin Plans), which set forth the state's water quality standards (i.e. beneficial uses of surface waters and groundwater) and the objectives or criteria necessary to protect those beneficial uses. Lands within Marin County fall under the jurisdiction of the San Francisco Bay RWQCB.

b. NPDES Permit Requirements

Section 402 of the CWA establishes a framework for regulating NPS storm water discharges through the NPDES program. In California, the SWRCB and RWQCBs are responsible for administering the NPDES program. Under the NPDES program, an applicant is required to submit a Notice of Intent (NOI) with the SWRCB Division of Water Quality. The NOI includes gen-

eral information on the types of construction activities that will occur on the site. The applicant is also required to prepare and implement a site-specific plan called a SWPPP. The SWPPP includes a description of appropriate Best Management Practices (BMPs) to minimize the discharge of pollutants from the site. It is the responsibility of the applicant to obtain the NPDES permit authorization prior to initiating site construction activities.

c. **San Francisco Bay Water Quality Control Plan**

Per the Porter-Cologne Act, the San Francisco Bay RWQCB is responsible for the development, adoption, and implementation of the Water Quality Control Plan (Basin Plan) for the San Francisco Bay region. The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the San Francisco Bay Region. The Basin Plan identifies beneficial uses of surface waters and groundwater within its region and specifies water quality objectives to maintain the continued beneficial uses of these waters. The proposed project will be required to adhere to all applicable water quality objectives identified in the Basin Plan.

3. Local Regulations and Policies

a. **City of Oakland Creek Ordinance**

As stated in Chapter 13.16 of the Municipal Code, City of Oakland Creek Ordinance, the City prohibits activities that will result in the discharge of pollutants to Oakland's waterways or the damaging of creeks, creek functions, or habitat. A creek protection permit is required for any construction work on creekside properties.²

4. City of Oakland Standard Conditions of Approval

The City of Oakland's Standard Conditions of Approval will be adopted as requirements of the proposed project and are included, where applicable, in Section D. of this chapter to help ensure that no significant impacts occur as a result of this project.

² City of Oakland, http://www.oaklandnet.com/government/info/city_regs.html, accessed on July 14, 2008.

B. Existing Setting

1. Regional Hydrology

Temescal Creek flows from the Oakland hills through the project site, and on the East Bay Plain before entering the San Francisco Bay. The East Bay Plain Subbasin is an alluvial plain bounded on the north by San Pablo Bay, the San Francisco Bay to the west, the Niles Cone Groundwater Basin on the south and Franciscan Basement rock to the east in the Oakland Hills. Several creeks, including San Pablo, Wildcat, San Leandro and San Lorenzo flow through the subbasin and into the San Francisco and San Pablo bays. Average annual precipitation in the subbasin ranges from approximately 17 inches to more than 25 inches, mostly between the months of November and March.

2. Site Hydrology

Temescal Creek is within a 48-inch reinforced concrete culvert (RCP) as it flows into project site, where it is daylighted and winds through the northern portion of the project site, exiting the site in an earth-lined channel before entering a culvert approximately 100 feet west of the site. A tributary drainage channel joins the creek along the south bank approximately 100-feet upstream of the 48-inch RCP. Drainage from both Thornhill Drive to the north as well as from the building and on the downstream end of the creek flows toward the creek. The northern bank of the creek, at the meander's outside edge, is eroding, and in some areas is located as close as 10 feet from Thornhill Drive. A detailed description hydrology within the project site is included in the Hydrology Report, included as Appendix G of this EIR.

3. Groundwater

The California Department of Water Resources (DWR) defines state groundwater basins based on geologic and hydrogeologic conditions. According to the DWR, the project site is not located within a groundwater basin.³

³ Department of Water Resources, California's Groundwater Bulletin 118. Last Update, February 27, 2004.

4. Flooding

The project site is not located in a 100-year floodplain zone as delineated by the Federal Emergency Management Agency (FEMA).⁴

C. Thresholds of Significance

The proposed project would have a significant impact related to hydrology if it would:

1. Violate any water quality standards or waste discharge requirements.
2. 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).
3. Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters.
4. Result in substantial flooding on- or off-site.
5. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems.
6. Create or contribute substantial runoff which would be an additional source of polluted runoff.
7. Otherwise substantially degrade water quality.
8. 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 that would impede or redirect flood flows.

⁴ Kamman Hydrology & Engineering, Inc., Bridge Design review: St. John's Episcopal Church, Oakland, CA. June 28, 2007.

9. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
10. Expose people or structures to a substantial risk of loss, injury or death involving flooding.
11. Result in inundation by seiche, tsunami, or mudflow.
12. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a Creek, river or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or off-site.
13. Fundamentally conflict with elements of the City of Oakland Creek Protection (OMC Chapter 13.16) ordinance intended to protect hydrologic resources. Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of water quality through (a) discharging a substantial amount of pollutants into creek; (b) significantly modifying the natural flow of the water or capacity; (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or (d) substantially endangering public or private property or threatening public health or safety.

D. Impact, Standard Conditions of Approval and Mitigation Measure Discussion

1. Violate any water quality standards or waste discharge requirements.

Hazardous materials associated with construction activities are likely to involve minor quantities of paint, solvents, oil and grease and petroleum hydrocarbons. Storage and use of hazardous materials at the project site during construction activities would comply with best management practices (BMPs) as required by the City of Oakland and Alameda County stormwater quality protection requirements, which would reduce potential impacts to groundwater quality associated with spills or leaks of hazardous materials used routinely during construction activities to a *less-than-significant* level.

Additionally, adherence to the Standard Conditions of Approval listed below, would reduce both pre- and post-construction water quality impacts to a *less-than-significant* level.

Standard Condition of Approval HYD-1: Stormwater Pollution Prevention Plan (SWPPP). *Prior to and ongoing throughout demolition, grading, and/or construction activities.* The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Planning and Zoning Division and the Building Services Division. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit a copy of the SWPPP and evidence of approval of the SWPPP by the SWRCB to the Building Services Division. Implementation of the SWPPP shall start with the commencement of construction and continue through the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.

Standard Condition of Approval HYD-2: Drainage Plan for Projects on Slopes Greater than 20%. *Prior to issuance of building permit (or other construction-related permit).* The project drawings submitted for a building permit (or other construction-related permit) shall contain a drainage plan to be reviewed and approved by the Building Services Division. The drainage plan shall include measures to reduce the post-construction volume and velocity of stormwater runoff to the maximum extent practicable. Stormwater runoff shall not be augmented to adjacent properties or creeks. The drainage plan shall include and identify the following:

- i. All proposed impervious surface on the site;
- ii. Anticipated directional flows of on-site stormwater runoff;
- iii. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces;
- iv. Source control measures to limit the potential for stormwater pollution; and
- v. Stormwater treatment measures to remove pollutants from stormwater runoff.

Standard Condition of Approval HYD-3: Post-Construction Stormwater Pollution Management Plan. *Prior to issuance of building permit (or other construction-related permit).* The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a completed Stormwater Supplemental Form for the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater pollution management plan, for review and approval by the City, to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable.

- a. The post-construction stormwater pollution management plan shall include and identify the following:
 - i. All proposed impervious surface on the site;
 - ii. Anticipated directional flows of on-site stormwater runoff; and
 - iii. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and
 - iv. Source control measures to limit the potential for stormwater pollution; and
 - v. Stormwater treatment measures to remove pollutants from stormwater runoff.
- b. The following additional information shall be submitted with the post-construction stormwater pollution management plan:

- i. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and
- ii. Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e. non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable of removing the range of pollutants typically removed by landscape-based treatment measures.

All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater pollution management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program.

Prior to final permit inspection. The applicant shall implement the approved stormwater pollution management plan.

Standard Condition of Approval HYD-4: Maintenance Agreement for Stormwater Treatment Measures. *Prior to final zoning inspection.* For projects incorporating stormwater treatment measures, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following:

- i. The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and

- ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.

Standard Condition of Approval HYD-5: Erosion, Sedimentation, and Debris Control Measures. *Prior to issuance of demolition, grading, or construction-related permit.* The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable "Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP's for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:

- a. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek.
- b. In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.
- c. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimenta-

tion problems. Maximize the replanting of the area with native vegetation as soon as possible.

- d. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted. (Note, due to the nature of the work, mechanized equipment may be necessary. See Mitigation Measures BIO-3a and BIO-3b in previous section.)
- e. Install filter materials (such as sandbags, filter fabric, etc.) at the storm drain inlets nearest to the creek side of the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.
- f. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.
- g. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.
- h. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.
- i. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.
- j. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.

- k. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek.
- l. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB).
- m. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of Planning and Zoning.
- n. All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.

Standard Condition of Approval HYD-6: Creek Protection Plan.
<http://www.oaklandpw.com/creeks>. *Prior to and ongoing throughout demolition, grading, and/or construction activities.*

- a. The approved creek protection plan shall be included in the project drawings submitted for a building permit (or other construction-related permit). The project applicant shall implement the creek protection plan to minimize potential impacts to the creek during and after construction of the project. The plan shall fully describe in plan and written form all erosion, sediment, stormwater, and construction management measures to be implemented on-site.

- b. If the plan includes a stormwater system, all stormwater outfalls shall include energy dissipation that slows the velocity of the water at the point of outflow to maximize infiltration and minimize erosion. The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains.

Standard Condition of Approval HYD-7: Creek Monitoring. *Prior to issuance of a demolition, grading, or building permit within vicinity of the creek.* A qualified geotechnical engineer and/or environmental consultant shall be retained and paid for by the project applicant to make site visits during all grading activities; and as a follow-up, submit to the Building Services Division a letter certifying that the erosion and sedimentation control measures set forth in the Creek Protection Permit submittal material have been instituted during the grading activities.

Standard Condition of Approval HYD-8: Creek Landscaping Plan. *Prior to issuance of a demolition, grading, or building permit within vicinity of the creek.* The project applicant shall develop a final detailed landscaping and irrigation plan for review and approval by the Planning and Zoning Division prepared by a licensed landscape architect or other qualified person. Such a plan shall include a planting schedule, detailing plant types and locations, and a system for temporary irrigation of plantings.

- a. Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.
- b. All landscaping indicated on the approved landscape plan shall be installed prior to the issuance of a Final inspection of the building permit, unless bonded pursuant to the provisions of Section 17.124.50 of the Oakland Planning Code.
- c. All landscaping areas shown on the approved plans shall be maintained in neat and safe conditions, and all plants shall be maintained in good growing condition and, whenever necessary replaced with

new plant materials to ensure continued compliance with all applicable landscaping requirements. All paving or impervious surfaces shall occur only on approved areas.

Standard Condition of Approval HYD-9: Creek Dewatering and Aquatic Life. *Prior to the start of and ongoing throughout any in-water construction activity.*

- a. If any dam or other artificial obstruction is constructed, maintained, or placed in operation within the stream channel, ensure that sufficient water is allowed to pass down channel at all times to maintain aquatic life (native fish, native amphibians, and western pond turtles) below the dam or other artificial obstruction.
- b. The project applicant shall hire a biologist, and obtain all necessary State and federal permits (e.g. CDFG Scientific Collecting Permit), to relocate all native fish/native amphibians/pond turtles within the work site, prior to dewatering. The applicant shall first obtain a project-specific authorization from the CDFG and/or the USFWS, as applicable to relocate these animals. Captured native fish/native amphibians/pond turtles shall be moved to the nearest appropriate site on the stream channel downstream. The biologist/contractor shall check daily for stranded aquatic life as the water level in the dewatering area drops. All reasonable efforts shall be made to capture and move all stranded aquatic life observed in the dewatered areas. Capture methods may include fish landing nets, dip nets, buckets, and by hand. Captured aquatic life shall be released immediately in the nearest appropriate downstream site. This condition does not allow the take or disturbance of any state or federally listed species, nor state-listed species of special concern, unless the applicant obtains a project specific authorization from the CDFG and/or the USFWS, as applicable.

Standard Condition of Approval HYD-10: Creek Dewatering and Diversion. *Prior to the start of any in-water construction activities.* If installing any dewatering or diversion device(s), the project applicant shall develop and implement a detailed dewatering and diversion plan for review and

approval by the Building Services Division. All proposed dewatering and diversion practices shall be consistent with the requirements of the Streambed Alteration Agreement issued by the California Department of Fish and Game.

- a. Ensure that construction and operation of the devices meet the standards in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB).
 - b. Construct coffer dams and/or water diversion system of a non-erodable material which will cause little or no siltation. Maintain coffer dams and the water diversion system in place and functional throughout the construction period. If the coffer dams or water diversion system fail, repair immediately based on the recommendations of a qualified environmental consultant. Remove devices only after construction is complete and the site stabilized.
 - c. Pass pumped water through a sediment settling device before returning the water to the stream channel. Provide velocity dissipation measures at the outfall to prevent erosion.
2. **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).**

The proposed development would utilize the municipal water supply source. No new wells are proposed that would directly interfere with groundwater and, since the municipal supply would not draw from nearby wells, there should be no impact from groundwater extraction or pumping as a result of the project. Furthermore, in accordance with standard City practices, the project sponsor shall be required to comply with all applicable regulatory standards and regulations pertaining to potential contaminants and to project-related grading and excavation prior to issuance of grading and building permits.

Although the project development would result in the construction of additional impervious surfaces (e.g. rooftops, streets, parking lots, etc) which decrease the land area available for infiltration of rainfall, thereby reducing groundwater recharge, the impact on groundwater recharge would be *less than significant* because groundwater resources in the site vicinity are very limited and are not used as a water supply source.

3. Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters.

Under current conditions, approximately 33 percent (or 44,745 square feet) of the 136,300 square foot (3.13-acre) site is covered by the existing structures and paving. With removal of the existing house, and construction of the proposed Sanctuary, the total impervious area would increase from 44,745 square feet to 51,640 square feet, an increase of 13 percent. The net increase assumes the use of pervious surfaces included as part of the project, as described below.

Through the use of pervious, low runoff-producing materials for parking and pathways, including packed gravel and decomposed granite base, and reconfiguration of the existing paved surfaces, on-site post-development conditions will produce slightly lower or the same peak runoff values when compared to existing conditions even with the estimated 13 percent increase in impervious area.⁵ The parking area will include pervious parking spaces that will retain stormwater on site, and will allow water to percolate into the ground as opposed to flowing into Temescal Creek. As such, the project will reduce the potential for water runoff creating erosion or siltation.

However, project construction would require earthwork and grading activities that could lead to construction-related erosion. Soils will be disturbed as the project is constructed and the creek is altered. Project impacts associated with construction-related erosion are considered to be *significant*.

⁵ Kamman Hydrology & Engineering, Hydrology Report, May 3, 2010, Table 5, page 8.

Siltation could result from loose disturbed soil being mobilized by storm water that could enter and clog adjacent storm drains and waterways and adversely affect the aquatic environment. As a result, the project is considered to have a *significant* impact in terms of erosion and siltation.

With the incorporation of Standard Condition of Approval 82, as listed above, the project would result in *less-than-significant* impact.

4. Result in substantial flooding on- or off-site.

Stormwater discharges from the site are not expected to significantly increase or result in substantial erosion or flooding onsite or offsite, since as noted, the project would not significantly increase the amount of impervious surface onsite. The project is not located in a 100-year floodplain zone, according to the Federal Emergency Management Agency (FEMA), and is therefore subject to an annual flooding probability of less than one percent.

Temescal Creek runs within a culvert upstream and downstream from the project site. The implementation of the proposed project, including construction of the bridge, construction of the proposed bank treatments under the bridge, and implementation of the planting plan along the creek banks would lead to a minor fluctuation in water level and modest reductions in flow velocity restricted to the proposed bridge vicinity. None of these proposed changes would lead to adverse channel stability or increase flood hazard upstream or downstream of the project site.⁶ As a result a *less-than-significant* impact would occur.

5. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems.

As discussed in response to criteria 3), under current conditions, approximately 33 percent (or 44,745 square feet) of the 136,300 square foot (3.13-acre) site is covered by the existing structures and paving. With removal of the existing house, and construction of the Sanctuary addition, the total impervi-

⁶ Kamman Hydrology & Engineering, Inc., Hydrology Report, May 3, 2010, page 23.

ous area would increase from 44,745 square feet to 51,640 square feet. This increase includes the use of pervious surfaces included as part of the project (i.e. gravel parking area). As discussed in response to criteria 3 above, the net increase in impervious surfaces as a result of the project would not increase stormwater runoff volumes over existing conditions and could actually result in lower volumes, with incorporation of stormwater retention features. Construction of the project would not significantly alter the pattern of surface runoff, compared to existing conditions. In addition, the project will be required to comply with Standard Conditions of Approval HYD-1 through HYD-6 discussed above in response to criteria 1. As a result, a *less-than-significant* impact would occur.

6. Create or contribute substantial runoff which would be an additional source of polluted runoff.

As discussed in response to criteria 5), the project would result in an increase in impervious surface area, however, due to proposed project components, the pattern and volume of surface runoff would not substantially change. However, the potential exists for short-term (construction-related) or long-term impacts on surface water quality. The project would be required to comply with Standard Conditions of Approval HYD-1 through HYD-6, discussed above in criteria 1. As a result, a *less-than significant* impact would occur.

7. Otherwise substantially degrade water quality.

Beyond potentially significant impacts to water quality discussed in the response to criteria 1), the project would not otherwise degrade surface water or groundwater quality. Therefore *no impact* would occur.

8. 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 that would impede or redirect flood flows.

The proposed project does not involve construction of housing. Therefore, *no impact* would occur.

9. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

Current 100-year flood elevations are contained within the existing Temescal Creek channel. The simulated maximum 100-year flood water surface elevation at the bridge location is no higher than 598 feet in elevation under existing channel geometry. The proposed free-spanning bridge decking and roadway are designed for a 600-foot elevation, and the bridge footings are located outside of and above the 100-year flood water surface.⁷ As discussed in the Hydrology Report (included in Appendix G), the banks of the creek below the proposed bridge will include the installation of a combination of bioengineering techniques to stabilize the creek banks. Although the bioengineering features will include a reduction in slope of the creek banks, modifications to the banks will not impede or redirect flood flows.⁸ Therefore, a *less-than-significant* impact would occur.

10. Expose people or structures to a substantial risk of loss, injury or death involving flooding.

As discussed in response to criteria 9), the 100-year flood elevations are contained within the existing Temescal Creek channel. Additionally, the proposed bridge would be outside the 100-year flood hazard area. The project will not affect water flow upstream or downstream from the project site, and will result in a *less-than-significant* impact.

11. Result in inundation by seiche, tsunami, or mudflow.

The project site is not within proximity of large water bodies in which seiches or tsunamis could be generated. The proposed Phase 2 sanctuary site is located adjacent to a hillside which is located to the toe of a large regional landslide deposit.⁹ The proposed building could be exposed to mudflows from the

⁷ Kamman Hydrology & Engineering, Inc., Hydrology Report, May 3, 2010, pages 22-23.

⁸ Kamman Hydrology & Engineering, Inc., Hydrology Report, May 3, 2010, page 23.

⁹ Land/Marine Geotechnics, *Geotechnical Investigation, St. John's Episcopal Church, Entry Road, Bridge, Parking and New Sanctuary*. May 2005.

hillside during periods of heavy rain. At the time that the Church decides to proceed with the Phase 2 sanctuary, detailed plans would be developed, including the design of a site retaining wall which would help stabilize the hill, and which would be designed with freeboard to provide an area to catch mud and debris in the event of an upslope mudflow. The freeboard would be designed so that it can be cleaned out if mudflow occurs. In addition, the condition of the trees on the hillside, which are leaning as a result of current and past hillside movement, will be evaluated for stability and if found to be unstable, the hillside would be re-contoured and re-landscaped in order to stabilize the hill. By incorporating these design and evaluation steps, the risk of mudflow inundation is *less than significant*.

- 12. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or off-site.**

As discussed in response to criteria 3), the project would alter the drainage pattern of the site and would alter the course of Temescal Creek as it flows through the project site. However, as discussed above, the project will result in reduced water runoff flowing into the creek that would not substantially alter the creek. Additionally, the alteration of the course of the creek would include modification of creek banks under the proposed bridge and would not result in an increased flood hazard.¹⁰ As a result a *less-than-significant* impact would occur.

- 13. Fundamentally conflict with elements of the City of Oakland Creek Protection (OMC Chapter 13.16) ordinance intended to protect hydrologic resources. Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of water quality through (a) discharging a substantial amount of pollutants into creek; (b) significantly modifying the natural flow of the water or capacity; (c) depositing substantial amounts of new material into a creek or causing**

¹⁰ Kamman Hydrology & Engineering, Inc., Hydrology Report, May 3, 2010, page 23.

substantial bank erosion or instability; or (d) substantially endangering public or private property or threatening public health or safety.

As discussed in the responses to criteria 1) and 3), the project would not discharge a substantial amount of pollutants into Temescal Creek, nor would the project deposit a substantial amount of new material into the creek, or cause substantial bank erosion or instability. Standard Conditions of Approval 75, 76 and 80 address stormwater runoff.

The project proposes the construction and operation of a bridge over Temescal Creek to allow for the construction of a new sanctuary adjacent to the existing church hall. The project site is currently accessed through ingress and egress driveways that do not accommodate emergency vehicles due to narrow widths and steep slopes.

The Project would result in construction activities occurring within 20 feet of the top of the creek banks, as shown in Figure 3-5. As evaluated in the Hydrology Report (included in Appendix G of the EIR), the construction and operation of the bridge would not result in any changes to the hydrology of the project site or creek that would result in flooding or future bank erosion or collapse, or endanger public health or safety or property.

As discussed in Chapter 4.2, the shadow patterns in the vicinity of the creek would change based on the removal of trees to accommodate the proposed bridge. However, given the relatively small area, as shown in Figures 4.2-2 through 4.2-11, the changed shadow patterns would not substantially affect the water temperature flowing under the bridge. As a result, a *less-than-significant* impact to water temperature would occur.

The only modification to the existing creek embankments resulting from the project is the area beneath and adjacent to the proposed bridge. The banks under the proposed bridge would be reconstructed with equal or lesser exposure to creek flow. Where exposed to creek erosion, the restored bank would be less susceptible to erosion than the existing earthen bank – especially along the softer and unstable west channel bank, with incorporation of the bioengineering bank stabilization features described above. The proposed bridge

work would not adversely alter or redirect creek flow, but as noted in the Hydrology Report would lead to a to minor (less than 0.25-feet) rise in the flood levels and flow velocities (the majority of channel will experience velocity increase of 0.1-ft/s and up to 0.5-ft/s around Station 120 during the 2-year flood). Given the minor nature of these changes, there would be no impact on channel stability or increased flood hazard either upstream or downstream of the project site. Work to lay-back the channel banks and complete bioengineering measures along the banks beneath the bridge would, in tandem with lower flow velocities, lead to improved channel stability.¹¹

As discussed in Chapter 4.2 (Biological Resources), the construction and operation of the proposed bridge would impact existing riparian habitat by reducing the area of riparian habitat due to shading under the bridge. However, with the proposed mitigation measures, impacts to riparian habitat would be *less-than-significant*.

E. Cumulative Impacts

This analysis evaluates whether the impacts of the Proposed Project, together with the impacts of past, present, pending and reasonably foreseeable future development, would result in a cumulatively significant impact on hydrology and water quality (based on the significance criteria and thresholds presented earlier). This analysis then considers whether the incremental contribution of the Proposed Project to this cumulative impact would be considerable. Both conditions must apply in order for a project's cumulative effects to rise to the level of significance.

The geographic context for analysis of cumulative impacts to biological resources in this DEIR encompasses the North Oakland hills, and specifically, the Temescal Creek drainage area.

¹¹ Kamman Hydrology & Engineering, Inc., Hydrology Report, May 3, 2010, page 23.

The cumulative analysis considers the effect of the Proposed Project combined with past, present, pending and reasonably foreseeable projects in the defined geographic area. Past projects, i.e., the principal determinant of existing conditions in the area, which are developed and where hydrology and water quality impacts already exist - even where open space persists, have already caused adverse cumulative effects on hydrology and water quality. With the addition of current and other proposed projects, there is an existing cumulative impact *without* the Project, which could be considered to combine with the Proposed Project to increase the aggregate effect and be considered cumulatively significant.

However, relative to the CEQA baseline, the impacts of the proposed Project *do not* aggregate to breach the CEQA significance thresholds described elsewhere in the Draft EIR. There are no other reasonably foreseeable projects of this scope in the area, and, if there are, the cumulative effect on hydrology and water quality would be minimized as discussed above and below.

Environmentally protective laws and regulations have been applied with increasing rigor since the early 1970s and include the State Porter-Cologne Water Quality Act, NPDES permit requirements, San Francisco Bay Water Quality Control Plan, the Clean Water Act, and Oakland's Creek Protection Ordinance, as described in section A., Regulatory Setting, earlier in this EIR chapter. The Proposed Project and other future projects within the cumulative geographic context are and would be required to comply with local, state, and federal laws and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on hydrology and water quality. Additionally, new projects would be required to demonstrate that they would not have significant effects on hydrology and water quality resources, although it is possible that some projects may be approved even though they would have significant, unavoidable impacts.

The current impact analysis has shown that the Project has the potential for significant impacts on hydrology and water quality and that these impacts can be reduced to less-than-significant levels through the application of the City

of Oakland's SCAs and proposed mitigation measures proposed for biological resources.

Specifically, the proposed project would not substantially increase the amount of impervious surface area within the vicinity of the Temescal Creek drainage area. No other projects of similar scope are planned or pending within the vicinity of the project.¹² Additionally, future development in this hilly, residential area of Oakland would be limited to construction on a limited number of undeveloped lots or redevelopment of existing lots. Through implementation of standard conditions of approval (where applicable), runoff from increases in impervious areas would be mitigated through required on-site detention techniques. Therefore, a substantial increase in impervious surface is not anticipated and would not combine with the project to significantly increase the overall volume of surface runoff as well as peak flows. A *less-than-significant* cumulative impact on runoff would occur.

With respect to surface water quality, construction activity associated with cumulative development would increase sedimentation. New development would increase the generation of urban NPS pollutants that may adversely affect water quality in the long term. However, compliance with the NPDES program requirements and other RWQCB regulations would ensure that the project would result in a *less-than-significant* cumulative impact on water quality.

The project proposes the construction of a bridge over Temescal creek to provide primary site ingress and egress. As discussed above in response to criterion 13, the only modification to the existing creek banks is beneath the proposed bridge. The modifications would not adversely alter or redirect creek flow and would lead to a minor fluctuation in water level and modest reductions in flow velocity. None of these changes would lead to adverse channel instability or increased flood hazard either upstream or downstream

¹² Clevenger, Ann. Personal communication with DC&E, November 9, 2010.

of the project site. As a result, the cumulative impacts to creek hydrology are considered *less than significant*.

Construction of the bridge would enable improved emergency access to the site and enable the construction of the new sanctuary to be located adjacent to the existing St. John's hall. Because of site constraints, including topography and property lines, the project applicant believes construction and operation of the bridge as a component of the project would be necessary to achieve project objectives. Furthermore, construction and operation of the proposed project would not result in an increase in water runoff from the site, nor would the construction or operation of the proposed bridge result in an increased risk of flooding upstream or downstream of the site. Moreover, these project objectives are unique to the Church, a cumulative impact resulting in the City of Oakland allowing the construction of bridges over creeks would be a *less than significant* cumulative impact.

4.4 TRAFFIC AND CIRCULATION

This section discusses existing conditions of traffic and circulation of the proposed project site, the standards of significance used to determine impacts, and an analysis of the effects that the proposed project would have on vehicle traffic in the project vicinity. Three reports describing traffic and circulation within the project site and in the vicinity of the project are included in Appendix I of this EIR.

A. Regulatory Setting

The Land Use and Transportation Element (LUTE) of the Oakland General Plan contains information on existing circulation conditions as well as goals and policies for the development of future circulation systems within the city.

B. Existing Setting

1. Methodology

Following the City of Oakland's orientation standards, roadways that run parallel to the Oakland hills are considered east-west, while those that run perpendicular are north-south. Thus, orientations of all roadways in or near the study area are as follows:

- ◆ **North-South.** Thornhill Drive, Alhambra Court
- ◆ **East-West.** Gouldin Road, Alhambra Lane

The following three intersections were selected for vehicle level of service analysis:

1. Thornhill Drive and Gouldin Road
2. Thornhill Drive and Alhambra Lane
3. Thornhill Drive and the proposed driveway for St. John's Church (existing + project only)

Additionally, weekday pedestrian counts were conducted at the mid-block crosswalk located on Thornhill Drive between Gouldin Road and Alhambra Lane due to its proximity to the proposed driveway for St. John's Church.

Study intersections are shown in Figure 4.4-1.

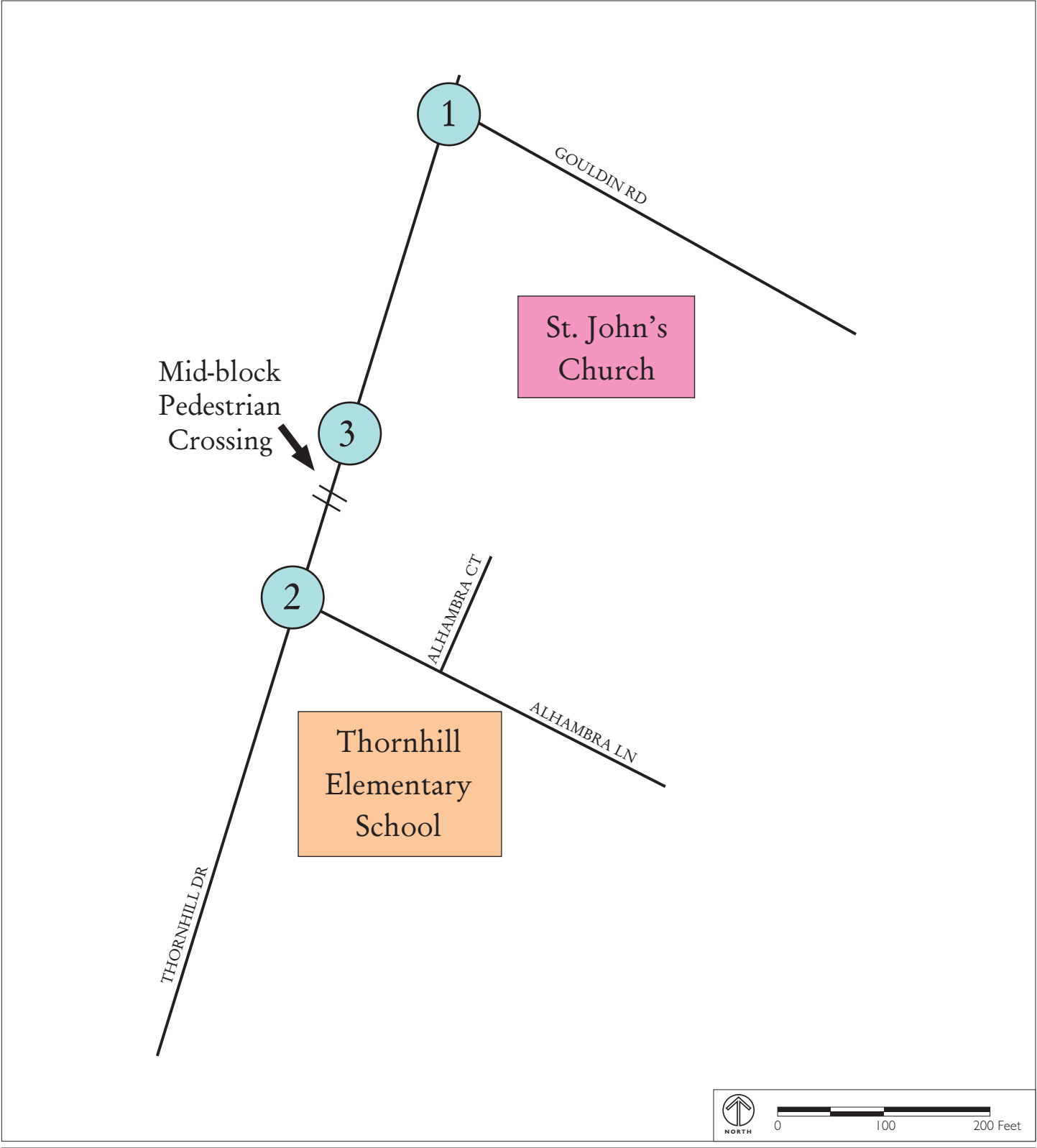
Vehicle levels of service were calculated at the two existing study intersections and the location of proposed project driveway using the Traffix software, employing the 2000 Highway Capacity Manual methodology for unsignalized intersections. The Transportation Research Board's 2000 Highway Capacity Manual defines level of service as a qualitative measure that calculates weighted average delay and assigns a grade from level of service (LOS) "A" to "F", with LOS "A" representing little or no delay and LOS "F" representing excessive delay and congestion. At side-street stop-controlled intersections, the level of service grade is assigned based on the intersection leg experiencing the worst delay. For the City of Oakland, LOS "D" is considered the threshold for intersections located outside of the downtown area.¹

2. Existing Conditions

a. Level of Service Analysis

Level of service analysis was conducted for weekday and Sunday conditions. Under existing weekday conditions, the church facilities are used by Thornhill Elementary School, parents and faculty for student drop-off and pick-up as well as for staff parking. Dowling Associates conducted counts at the peak-hours of trip generation for Thornhill Elementary School. The school has different drop-off and pick-up times for Kindergarten students as compared to Grades 1 through 5 students. Kindergarten students arrive for an 8:20 a.m. start, but the rest of the students arrive in time for the 8:40 a.m. class time. On regular (non-minimum) school days, Kindergarten students are dismissed at 2:15 p.m. and Grades 1 through 5 students are dismissed at 3:00 p.m.

¹ Dowling Associates, Inc., Supplemental Transportation and Parking Analysis for the Renovation at St John's Episcopal Church, Oakland, July 10, 2008, page 3.



Source: Dowling Associates, Inc., & DC&E

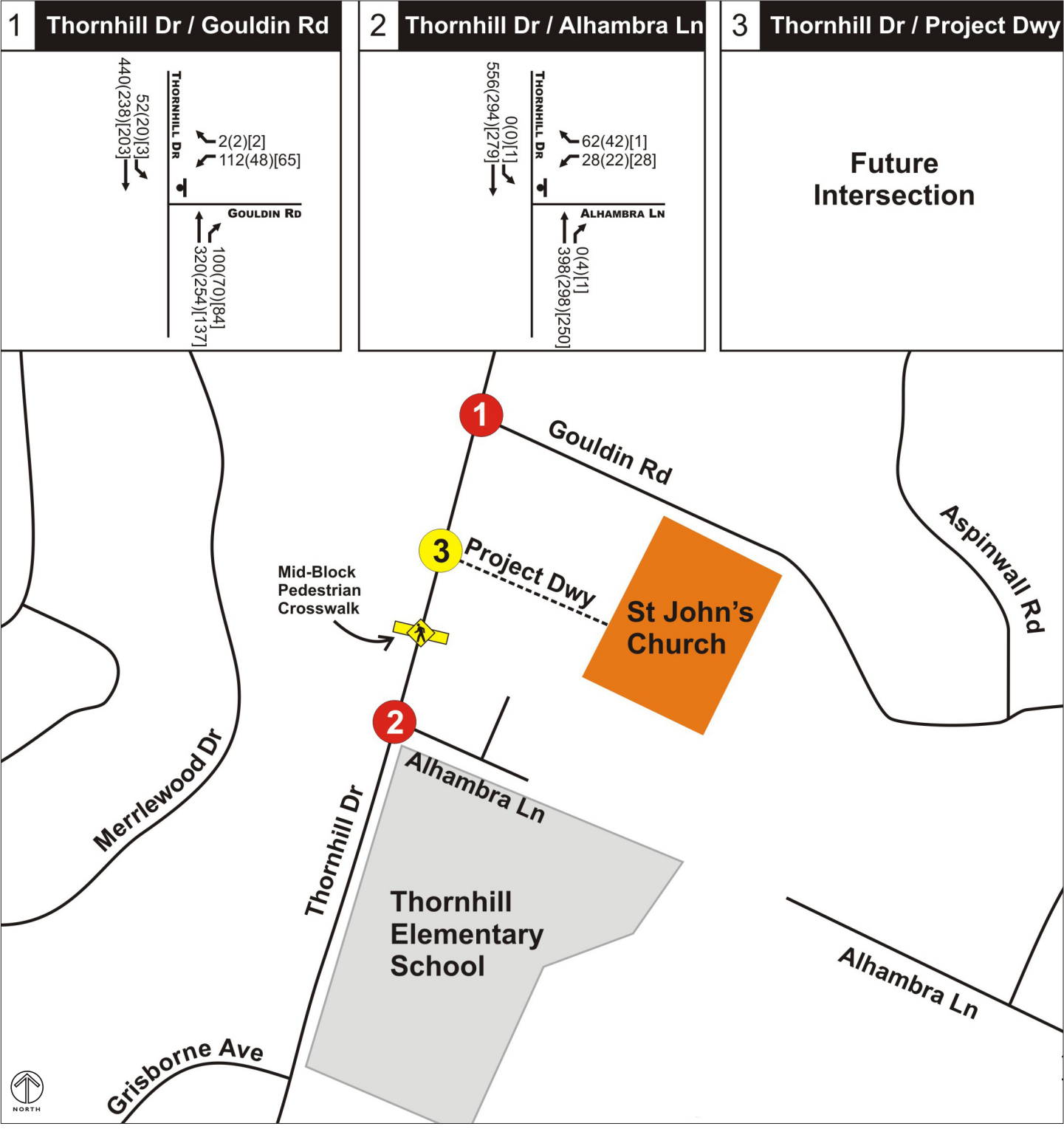
FIGURE 4.4-1
STUDY LOCATIONS

Timing of the weekday traffic counts was determined by the Grades 1 through 5 students' class schedules. The vehicle intersection turning movement counts were done on Tuesday, May 13, 2008 from 8:15 to 8:45 a.m. and 2:45 to 3:15 p.m. (30 minutes each) at the two existing study intersections. At these same times and locations, bicyclists passing through the study intersections were counted. Pedestrian crossings were also counted at the two existing study intersections, as well as at the mid-block pedestrian crossing.

Typically, level of service at intersections is calculated using the highest volume of vehicles over a 60-minute period. Since the weekday counts were conducted for 30 minutes to capture the school's peak activity periods, the intersection turning movement volumes for the weekday were doubled to create a full hour of vehicle volumes for analysis. Pedestrian volumes were increased by 50 percent to create a full hour for the level of service analysis. These estimations most likely provide higher volumes than would have been counted in a full hour, as the counts were conducted at the peak trip generation times for the school.

Vehicle turning movement counts were also conducted by Wiltec, a traffic count firm, on Sunday, March 18, 2007 from 9:30 a.m. to 12:30 p.m. to capture the Church's peak trip generation during their Sunday services. The peak-hour vehicle volumes at each study intersection were used to calculate level of service.

Vehicle volumes used for weekday and Sunday level of service analysis are shown in Figure 4.4-2. The results of the level of service analysis are contained in Table 4.4-1, which display level of service and delay for both the stop-controlled leg and overall intersection. Results from the analysis found both existing intersections operated at LOS D or better, which is within Oakland's level of service standard for intersections located outside of the downtown area.



XX(YY)[ZZ] AM(PM)[SUN] Peak Hour Volumes

X Study Intersection Y Future Intersection

Stop Sign

*Note: AM & PM counts conducted on a weekday 8:15-8:45 am and 2:45-3:15pm to capture peak school traffic. Counts were doubled to estimate peak-hours volumes.

FIGURE 4.4-2

EXISTING NO PROJECT VEHICLE PEAK HOUR VOLUMES AM(PM)[SUN]

CITY OF OAKLAND
ST. JOHN'S CHURCH PROJECT DRAFT EIR
TRAFFIC AND CIRCULATION

TABLE 4.4-1 **EXISTING INTERSECTION LEVELS OF SERVICE FOR VEHICLES**

	Intersection	Traffic Control	Analysis	AM Weekday		PM Weekday		Sunday	
				LOS	Delay	LOS	Delay	LOS	Delay
1	Thornhill Dr. & Gouldin Rd.	One-Way Stop-Controlled	Gouldin	D	31.5	B	14.3	B	12.9
			Overall Intersection	A	3.9	A	1.4	A	2.6
2	Thornhill Dr. & Alhambra Ln.	One-Way Stop-Controlled	Alhambra	C	16.2	B	12.2	B	14.4
			Overall Intersection	A	1.4	A	1.2	A	1.6

Notes: LOS = Level of Service; Delay is measured as weighted average of seconds per vehicle. Level of service at one-way stop-controlled intersections is based on the stop-controlled Leg. The level of service and delay for both the overall intersection and the stop-controlled leg are reported here.

Weekday counts were done from 8:15 a.m. to 8:45 a.m. for the AM and from 2:45 p.m. to 3:15 p.m. for the PM on Tuesday, May 13, 2008. Vehicle volumes were doubled and pedestrian volumes were increased by 50 percent to conduct the analysis for the peak-hour.

Sunday counts were conducted on March 18, 2007 from 9:30 a.m. to 12:30 p.m, with the peak-hour of 11:30 a.m. to 12:30 p.m.

Source: Calculated by Dowling Associates, Inc. in August 2010 using TRAFFIX version 8.0 Build R1.

b. Collisions

A collision history analysis of Thornhill Drive and the intersection of Thornhill Drive and Gouldin Road show that two accidents were reported between October 1, 2002 and September 30, 2007. One collision was reported in the study area on Thornhill Drive 40 feet south of Gouldin Road in 2004. It occurred at 8:45 a.m., and involved two vehicles, in a sideswipe collision, and its primary collision factor was deemed by police as unsafe starting or backing. Another collision was reported in close proximity to the study area on Gouldin Road 300 feet east of Alhambra Avenue in 2007. It occurred at 3:15 a.m. and involved one vehicle colliding with a fixed object and its primary collision factor was also unsafe starting and backing. There were no vehicles that involved pedestrians or bicyclists and there does not appear to be an identifiable pattern of reported collisions in the study area.

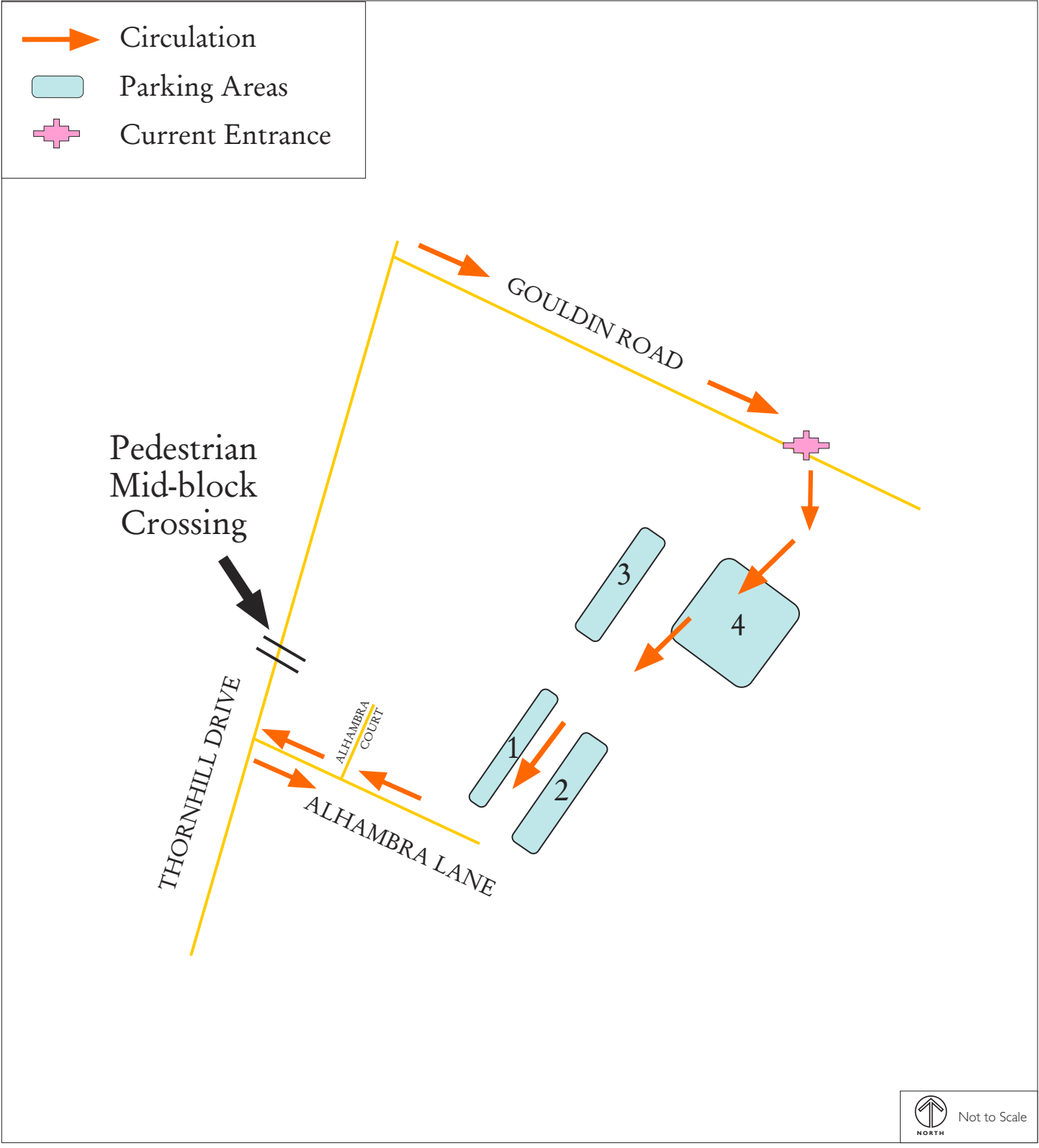
c. Parking Capacity

St. John's Church currently has 225 seats and its parking lot contains approximately 56 designated stalls, but is able to accommodate more parked vehicles in undesignated locations on-site. Figure 4.4-3 shows the four existing areas of the project site designated stalls are located.

d. School Circulation

Thornhill Elementary School uses about ten on-street parking spaces in front of the school on Thornhill Drive south of Alhambra Lane for drop-off and pick-up operations. A few drivers were observed performing illegal U-turns on Thornhill Drive at the intersections of Gouldin Road and Alhambra Lane after dropping off or picking up students. Several drivers parked their vehicles on the shoulder of the west side of Thornhill Drive between Alhambra Lane and the mid-block pedestrian crossing to park all day or to escort students to and from school. The majority of these drivers performed a three-point turn in order to park on the opposite side of the roadway. It should be noted that parking in this location is illegal.

St. John's Episcopal Church allows the use of its parking lot to the school for pick-up and drop-off circulation, as well as overflow parking for faculty, staff,



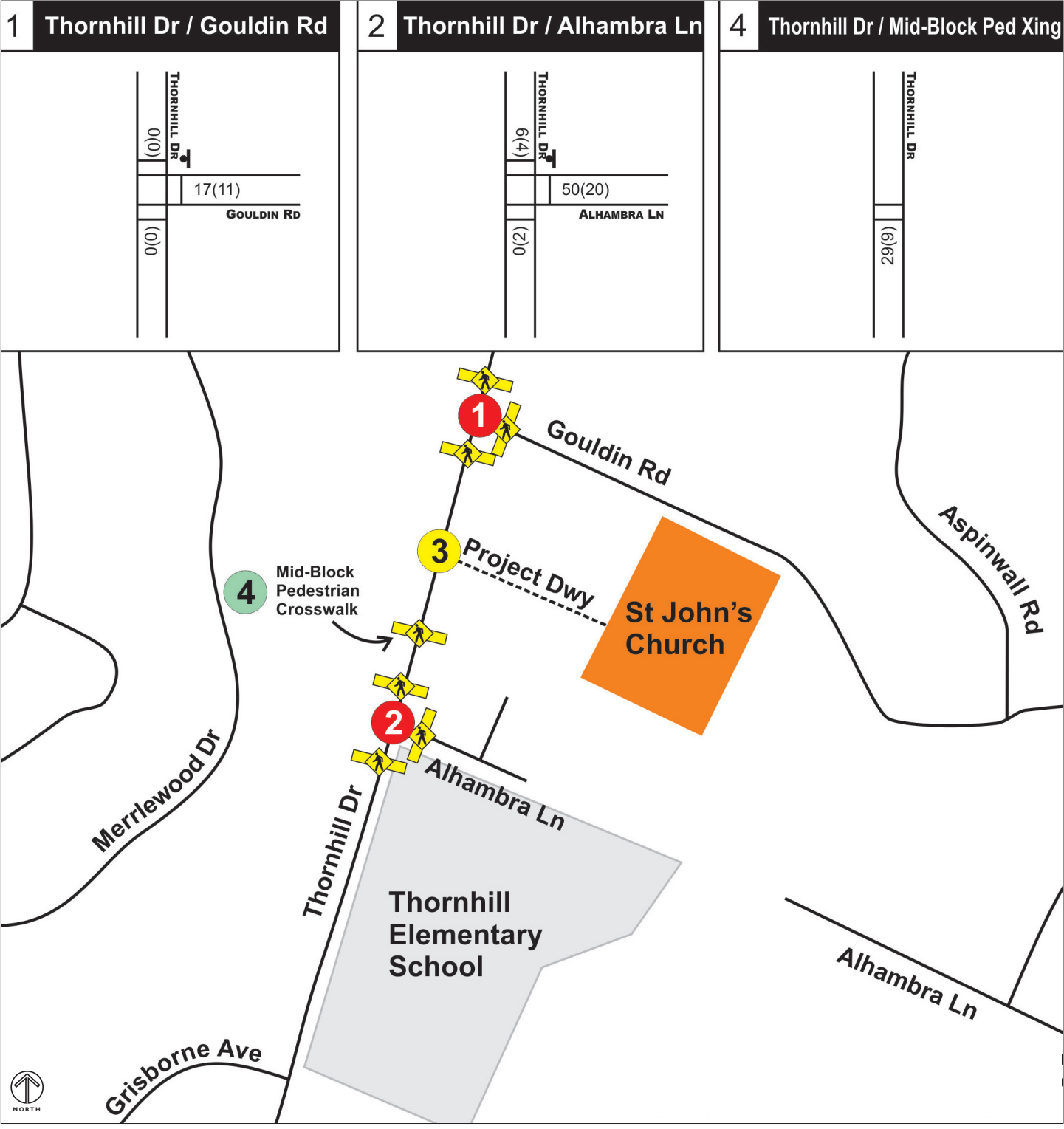
Source: Dowling Associates, Inc., & DC&E

FIGURE 4.4-3
EXISTING CIRCULATION

and volunteers. Vehicles associated with the school enter the parking lot at Gouldin Road, which is a one-way entrance. There is a steep downgrade at the entrance and the entering vehicles have limited sight distance. Parents either park in the church lot where they then walk their children down Alhambra Lane to the school, or enter Alhambra Lane for drop-offs or pick-ups. The vehicles exit the site from Alhambra Lane, which is one-way westbound from Alhambra Court to Thornhill Drive. Vehicles turning left onto Thornhill Drive from Alhambra Lane need to pull out into the crosswalk due to limited sight distance (77 feet to the north and 145 feet to the south). The current circulation patterns at the site are shown in Figure 4.4-3. A more detailed discussion of sight line issues is contained in Appendix I in the September 23, 2008 memorandum titled *Addendum to the Supplemental Transportation and Parking Study for the Renovation at St John's Episcopal Church, Oakland*.

During the AM and PM 30-minute weekday counts, no bicyclists were observed at the study intersections. There were, however, pedestrians counted, with the highest number of crossings observed in the AM. Thirty-minute pedestrian crossings at the existing study intersections and mid-block crossing are shown in Figure 4.4-4 and displayed in Tables 4.4-2 and 4.4-3.

Pedestrians use the mid-block crossing (about 35 feet across shoulder to shoulder) because there is a public staircase on the west side of Thornhill Drive, which provides access to hillside homes on the west side of Thornhill Drive. Drivers who park on the west side of Thornhill Drive between Alhambra Lane and the mid-block pedestrian crosswalk tend to cross where their cars are parked. This is because accessing the mid-block crosswalk would require walking in the travel lane, as there is no room on the shoulder for both parked vehicles and pedestrians. Additionally, most drivers who park here are accessing the Thornhill Elementary School, which is located in the opposite direction of the crosswalk.



XX(YY) AM(PM) Peak Hour Volumes
 X Study Intersection Y Future Intersection
 Stop Sign Crosswalks - Striped & Unstriped

*Note: AM & PM 30 minute counts conducted on a weekday 8:15-8:45 am and 2:45-3:15pm to capture peak school pedestrian crossings.

FIGURE 4.4 - 4
 PEDESTRIAN CROSSING 30 MINUTE COUNT AM(PM)

TABLE 4.4-2 **EXISTING 30-MINUTE PEDESTRIAN CROSSINGS AT STUDY INTERSECTIONS**

Intersection		Time*	North Leg	East Leg	South Leg	Total
1	Thornhill Drive & Gouldin Road	AM	0	17	0	17
		PM	0	11	0	11
2	Thornhill Drive & Alhambra Lane	AM	6	50	0	56
		PM	4	20	2	26

* AM Counts were conducted from 8:15 a.m. to 8:45 a.m. and PM counts were done from 2:45 p.m. until 3:15 p.m. on Tuesday, May 13, 2008.

Source: Dowling Associates, Inc., 2008.

TABLE 4.4-3 **EXISTING 30-MINUTE PEDESTRIAN CROSSINGS AT THE MID-BLOCK CROSSWALK ON THORNHILL DRIVE BETWEEN GOULDIN ROAD AND ALHAMBRA LANE**

Location	Time ^a	Marked Crosswalk		Total
		Within ^b	Outside ^c	
Mid-Block Crosswalk on Thornhill Drive between Gouldin Road and Alhambra Lane	AM	19	10	29
	PM	7	2	9

^a AM Counts were conducted from 8:15 a.m. to 8:45 a.m. and PM counts were done from 2:45 p.m. until 3:15 p.m. on Tuesday, May 13, 2008.

^b Pedestrians crossed Thornhill Drive within the marked crosswalk

^c Pedestrians crossed Thornhill Drive outside of marked crosswalk.

Source: Dowling Associates, Inc., 2008.

e. Church-Associated Circulation

i. *General Information*

Based on information provided by the Church the current activities at the Church site are listed below.

The Church employs one full time staff person and eight part-time staff persons that enter and leave at different times.

The Church has three services on a typical Sunday morning. The parking lot is full on normal Sundays especially for the last service as classes and other church activities keep parishioners within the project site for longer periods of time. Some members regularly use the Thornhill Elementary School playground for parking. The Church services times and their approximate attendances are as follows:

- ◆ 7:45 a.m. to 8:30 a.m. – 30 persons
- ◆ 9:00 a.m. to 9:45 a.m. – 75 persons
- ◆ 10:45 a.m. to 12:00 p.m. – 100 persons

During four special yearly services (one at Christmas and three on Easter weekend), the attendance numbers are approximately doubled for these events. The parking lot is full, with most cars parked in non-designated parking spaces. There is also an increased use of parking in the playground at the elementary school. For funerals, which occur roughly two times a year between 10:00 a.m. and 3:00 p.m., the average attendance is approximately 150 persons.

Fifteen regularly scheduled meetings occur at the Church in addition to the services. The majority of these occur on the weekends or on the weekdays during non-peak commute hours. Meetings scheduled in the peak commute hours happen approximately once a week and attract roughly 20 or 30 attendees. Non-church or community meetings average about 20 per week or 3 to 4 meetings per day. A schedule for the month of October 2010 is shown in Appendix I as an example of all events occurring at the Church, as well as their average attendance numbers.

ii. Church-Related Traffic Circulation

Intersections likely to be affected by the project are on Thornhill Drive at Gouldin Road, Alhambra Lane, and the new driveway leading into the Church's parking lot. Sunday is the peak activity period at the Church. Under existing conditions, Church traffic generally enters the Church parking lot from Gouldin Road and exits from Alhambra Lane.

Alhambra Lane is stop-controlled at Thornhill Drive, but uncontrolled for Thornhill Drive. As such, traffic entering onto Thornhill Drive from Alhambra Lane is discussed in more detail. According to the counts done on Sunday, March 18, 2007, a total of 69 vehicles were observed at the east leg of Alhambra Lane during the three-hour period. Between 10:15 and 11:15 a.m., 35 cars were observed turning from Alhambra Lane and two vehicles entered onto Alhambra Lane, the highest number of vehicles observed going in and out of Alhambra Lane. A peak 15-minute flow of 18 vehicles turned onto Thornhill Drive from Alhambra Lane twice, 10:45 a.m. to 11:00 a.m., and 12:15 p.m. to 12:30 p.m.

As previously shown in Table 4.4-1, the Thornhill Drive intersections at Gouldin Road and Alhambra Lane both operate at LOS B during the Sunday peak hour. The detailed three-hour traffic counts and LOS calculations are included in Appendix I of this EIR.

iii. Parking

The four existing parking areas on the site are shown in Figure 4.4-3. St. John's Church currently has 225 seats and its parking lot contains approximately 56 designated stalls, but is able to accommodate more parked vehicles in undesignated locations on-site, including cars parked blocking other cars in the open space in parking area 4. Some cars were observed to be parked in non-designated areas of the project site. On Sunday March 18, 2007, 62 cars were observed on the Church site.

Another count was conducted on Sunday, September 21, 2008 to capture vehicle occupancies and parking both on and off site. The average occupancy of vehicles entering the parking lot at St. John's Church from Gouldin Road was 1.6 persons per vehicle. On this date, the highest attended sermon was the 9:00 a.m., with about 83 attendees, whereas the 7:45 a.m. and 10:00 a.m. sermon had 21 and 41 attendees respectively. The highest occupancy of on-street parking observed was 13, which may include non-Church attendees.

The highest occupancy of off-street parking observed was 59 at St. John's parking lot and 20 on Thornhill School's blacktop.²

iv. Site Circulation

The entrance to the project site is at 1707 Gouldin Road, which is a one-way driveway, is a steep downgrade with limited sight distance for entering vehicles. The vehicles exit the site on to Thornhill Drive from Alhambra Lane, which is one-way until it intersects with Alhambra Court where it is two-way. The current circulation pattern at the site is shown in Figure 4.4-2. Vehicles turning left onto Thornhill Drive, due to limited sight distance, need to pull out into the crosswalk, to turn safely. Currently, the sight distance from Alhambra is 75 feet to north. The minimum needed is 275 feet, according to the Highway Design Manual.³ A more detailed discussion of sight line issues is contained in Appendix I in the September 23, 2008 memorandum titled *Addendum to the Supplemental Transportation and Parking Study for the Renovation at St John's Episcopal Church, Oakland*.

The Church's access off of Gouldin Road is an entrance-only lane into the parking lot. The driveway entrance is about 15 feet wide and is characterized by a curved, steep downhill grade of 26 percent. There is no posted speed limit on the entrance. Sight distance from Gouldin Road turning into the driveway is about 69 feet due to foliage and roadway curvature, which means that sight distance standards for stopping is about 11 miles per hour (mph).⁴ It should be noted that this entrance will be abandoned, as part of the project.

² Dowling Associates, Inc., Addendum to Supplemental Transportation Study for St. John's Church Renovation Memorandum, September 23, 2008, page 7.

³ *Highway Design Manual*. California Department of Transportation. Chapter 200 – Geometric Design and Structure Standards, January 4, 2007, Table 201.1 – Sight Distance Standards for stopping distance extrapolated from the 25 mile per hour design speed.

⁴ *Highway Design Manual*. California Department of Transportation. Chapter 200 – Geometric Design and Structure Standards, January 4, 2007, Table 201.1 – Sight Distance Standards for stopping distance extrapolated from the 20 mile per hour design speed.

Alhambra Lane dead-ends at the Church's driveway, which is an exit-only lane out of the parking lot. Thus, vehicular movements are limited to right turns out of the driveway. The driveway exit onto Alhambra Lane is characterized by a steep downhill grade of 22 percent. There is no posted speed limit coming out of the driveway or on Alhambra Lane. Sight distance from the driveway turning onto Alhambra Lane is about 53 feet due to foliage, fencing, and roadway curvature, which means that sight distance standards for stopping is about 8 mph.⁵

A more detailed discussion of sight line issues is contained in Appendix I in the September 23, 2008 memorandum titled Addendum to the Supplemental Transportation and Parking Study for the Renovation at St John's Episcopal Church, Oakland.

C. Thresholds of Significance

The project would have a significant impact on the environment if it would:

1. Project Impacts

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, specifically:

⁵ *Highway Design Manual*. California Department of Transportation. Chapter 200 – Geometric Design and Structure Standards, January 4, 2007, Table 201.1 – Sight Distance Standards for stopping distance extrapolated from the 20 mile per hour design speed.

a. Traffic Load and Capacity Thresholds

1. At a study, signalized intersection which is located outside the Downtown⁶ area, the project would cause the level of service⁷ to degrade to worse than LOS D (i.e. LOS E);
2. At a study, signalized intersection which is located within the Downtown area, the project would cause the level of service to degrade to worse than LOS E (i.e. LOS F);
3. At a study, signalized intersection outside the Downtown area where the level of service is LOS E, the project would cause the total intersection average vehicle delay to increase by four or more seconds, or degrade to worse than LOS E (i.e. LOS F);
4. At a study, signalized intersection for all areas where the level of service is LOS E, the project would cause an increase in the average delay for any of the critical movements of six seconds or more, or degrade to worse than LOS E (i.e. LOS F);
5. At a study, signalized intersection for all areas where the level of service is LOS F, the project would cause (a) the total intersection average vehicle delay to increase by two or more seconds, or (b) an increase in average delay for any of the critical movements of four seconds or more; or (c) the volume-to-capacity ("V/C") ratio exceeds 3 percent (but only if the delay values cannot be measured accurately);

⁶ Downtown is defined in the Land Use and Transportation Element of the General Plan (page 67) as the area generally bounded by West Grand Avenue to the north, Lake Merritt and Channel Park to the east, the Oakland Estuary to the south and I-980/Brush Street to the west.

⁷ Level of service and delay calculations for local intersections should be based on the Highway Capacity Manual, Transportation Research Board, National Research Council, 2000 edition. For CMA intersections (project proposes a general plan amendment, or if an EIR is performed and there are 100 or more peak trips), use the 2000 Highway Capacity Manual. For state facilities, consult with the Planning Department.

6. At a study, unsignalized intersection the project would add ten or more vehicles and after project completion satisfy the Caltrans peak hour volume warrant;
 7. For a Congestion Management Program (CMP) required analysis, (i.e. projects that generate 100 or more PM peak hour trips) cause a roadway segment on the Metropolitan Transportation System to operate at LOS F or increase the V/C ratio by more than 3 percent for a roadway segment that would operate at LOS F without the project;
 8. Result in substantially increased travel times for AC Transit buses; [Note: Factors to consider in evaluating the potential impact include, but are not limited to, the proximity of the project site to the transit corridor(s), the function of the roadway segment(s), and the characteristics of the potentially affected bus routes(s). The evaluation may require a qualitative and/or quantitative analysis depending upon these relevant factors.]
- b. Other Thresholds
9. 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;
 10. Substantially increase traffic hazards to motor vehicles, bicycles, or pedestrians due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);
 11. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions; or
 12. Fundamentally conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

2. Cumulative Impacts

13. A project's contribution to cumulative impacts is considered "considerable" (i.e. significant) when the project exceeds at least one of the thresholds listed above under a future year scenario.

3. Planning Related, Non-CEQA Issues

The following transportation-related topics are not considerations under CEQA but should be evaluated in order to inform decision-makers and the public about these issues.⁸

a. Parking Requirements

The Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.⁹ Similarly, the December 2009 amendments to the State CEQA Guidelines (which were effective March 18, 2010) removed parking from the State's Environmental Checklist (Appendix G of the State CEQA Guidelines) as an environmental factor to be considered under CEQA. Parking supply/demand varies by time of day, day of week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach equilibrium between supply and demand. Decreased availability and increased costs result in changes to people's mode and pattern of travel. However, the City of Oakland, in its review of the proposed project, wants to ensure that the project's provision of additional parking spaces along with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects (such

⁸ Additional topics concerning, transit ridership, traffic queuing, and traffic control devices. These thresholds were not analyzed by this EIR due to current traffic conditions and transit ridership in the vicinity of the project site.

⁹ *San Franciscans Upholding the Downtown Plan v. the City and County of San Francisco* (2002) 102 Cal.App.4th 656.

as on air quality due to drivers searching for parking spaces) would be minimized. As such, although not required by CEQA, parking conditions are evaluated in this document.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. However, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g. transit service, shuttles, taxis, bicycles or travel by foot), may induce drivers to shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service, in particular, would be in keeping with the City's "Transit First" policy.

Additionally, regarding potential secondary effects, cars circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts that might result from a shortfall in parking in the vicinity of the proposed project are considered less than significant.

This EIR evaluates if the project's estimated parking demand (both project-generated and project-displaced) would be met by the project's proposed parking supply or by the existing parking supply within a reasonable walking distance of the project site. Project-displaced parking results from the project's removal of standard on-street parking, City, or Redevelopment Agency owned/controlled parking and/or legally required off-street parking (non-open-to-the-public parking which is legally required).

D. Impact, Standard Conditions of Approval, and Mitigation Measure Discussion

Existing Plus Project Conditions

a. Project Trip Generation

Using the Institute of Transportation Engineers' *Trip Generation, 8th Edition*, additional trips generated by the project were estimated for the weekday AM and PM, as well as Sunday peak-hour or generator. The project would generate one additional weekday trip in the AM and PM peak hour and 21 additional Sunday peak hour trips, shown in Tables 4.4-4 through 4.4-6.

b. Level of Service Analysis

Project trips were added to existing volumes and project trips redistributed to reflect the new driveway off of Thornhill Drive into St. John's Church. Figure 4.4-5 shows existing plus project vehicle volumes.

Level of service was analyzed for the weekday AM and PM time periods and for the Sunday peak hour. The study intersections will continue to operate at a LOS D or better for all time periods studied, as will the project driveway's intersection with Thornhill Drive. Delay improves slightly at the intersection of Thornhill Drive and Gouldin Road due to the redistribution of some traffic to the project driveway. Delay increases slightly at the intersection of Thornhill Drive and Alhambra Lane due to the slight increase in southbound through traffic at this intersection. Table 4.4-7 shows level of service and delay for Existing (No Project) and Existing plus Project.

c. Sight Distance at Project Driveway

The proposed access bridge/driveway is located approximately 40 feet north of the existing mid-block crosswalk, as shown in Figure 4.4-3. Given the use of this crosswalk, particularly during the morning drop-off, there is the potential for increased conflict between vehicles entering and exiting the new driveway and pedestrians crossing the street. Specifically, vehicles exiting the proposed access bridge/driveway and making left-turns would need to watch for pedestrians crossing Thornhill Drive near or in the crosswalk as well as

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TABLE 4.4-4 **WEEKDAY AM PEAK HOUR TRIP GENERATION**

Description	Size (SF)	Rates			Trips		
		Average	% In	% Out	Total	In	Out
Existing	7,700	0.56	62%	38%	4	0	4
Existing + Project	8,855	0.56	62%	38%	5	0	5
Project Only Trips	1,155				1	1	0

Source: *Trip Generation, 8th Edition*, Institute of Transportation Engineers, 2008, Weekday AM Peak Hour of Adjacent Street Traffic One Hour Between 7:00 and 9:00 a.m., per 1,000 square feet of gross floor area.

Dowling Associates, Inc., 2010.

TABLE 4.4-5 **WEEKDAY PM PEAK HOUR TRIP GENERATION**

Description	Size (SF)	Rates			Trips		
		Average	% In	% Out	Total	In	Out
Existing	7,700	0.94	54%	46%	7	0	7
Existing + Project	8,855	0.94	54%	46%	8	0	8
Project Only Trips	1,155				1	1	0

Source: *Trip Generation, 8th Edition*, Institute of Transportation Engineers, 2008, Weekday PM Peak Hour of Generator, per 1,000 square feet of gross floor area.

Dowling Associates, Inc., 2010.

TABLE 4.4-6 **SUNDAY PEAK HOUR TRIP GENERATION**

Description	Size (Seats)	Rates			Trips		
		Average	% In	% Out	Total	In	Out
Existing	225	0.61	51%	49%	137	70	67
Existing + Project	259	0.61	51%	49%	158	81	77
Project Only Trips	34				21	11	10

Source: *Trip Generation, 8th Edition*, Institute of Transportation Engineers, 2008, Sunday Peak Hour of Generator. Dowling Associates, Inc., 2010.

EXISTING PLUS PROJECT VEHICLE PEAK HOUR VOLUMES AM(PM)[SUN]

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TABLE 4.4-7 **EXISTING (NO PROJECT) AND EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE FOR VEHICLES**

			No Project						With Project						
			AM		PM		Sunday		AM		PM		Sunday		
			Weekday	Weekday	Weekday	Weekday			Weekday	Weekday					
Intersection	Traffic Control	Analysis	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	
1	Thornhill Dr. & Gouldin Rd.	One-Way Stop-Controlled	Gouldin	D	31.5	B	14.3	B	11.7	D	25.4	B	13.3	B	11.1
			Overall Intersection	A	3.9	A	1.4	A	1.6	A	3.2	A	1.2	A	1.8
2	Thornhill Dr. & Alhambra Ln.	One-Way Stop-Controlled	Alhambra	C	16.2	B	12.2	B	12.9	C	19.3	B	13.1	B	12.5
			Overall Intersection	A	1.4	A	1.2	A	0.7	A	0.3	A	0.3	A	0.4
3	Thornhill Dr. & St. John's Driveway	One-Way Stop-Controlled	Driveway	Not Applicable						B	13.7	B	11.2	B	12.5
			Overall Intersection							A	1.1	A	1.0	A	0.4

Notes: LOS = Level of Service; Delay is measured as weighted average of seconds per vehicle.

Level of service at one-way stop-controlled intersections is based on the stop-controlled leg. The level of service and delay for both the overall intersection and the stop-controlled leg are reported here.

Source: Calculated by Dowling Associates, Inc. in August 2010 using TRAFFIX version 8.0 Build R1.

for gaps in traffic on Thornhill Drive. 85th percentile speeds, measured for 24 hours on August 26, 2008 on Thornhill between Gouldin Road and Alhambra Lane, were found to be about 35 mph, although lower during the morning peak-hour (about 25 mph). Additionally, sight distance in the southbound direction is about 50 feet when vehicles are parked on-street next to the proposed driveway. Without parking, sight distances would improve to over 500 feet.

A more detailed discussion of sight line issues is contained in Appendix I in the September 23, 2008 memorandum titled Addendum to the Supplemental Transportation and Parking Study for the Renovation at St John's Episcopal Church, Oakland.

The project would have a significant impact on the environment if it would:

1. Project Impacts

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, specifically:

a. Traffic Load and Capacity Thresholds

1. At a study, signalized intersection which is located outside the Downtown area, the project would cause the level of service to degrade to worse than LOS D (i.e. LOS E).

Project study intersections are unsignalized. As a result, a *no impact* would occur.

2. At a study, signalized intersection which is located within the Downtown area, the project would cause the LOS to degrade to worse than LOS E (i.e. LOS F);

The project is not located within the Downtown area. As a result, *no impact* would occur.

3. At a study, signalized intersection outside the Downtown area where the level of service is LOS E, the project would cause the total intersection average vehicle delay to increase by four (4) or more seconds, or degrade to worse than LOS E (i.e. LOS F);

Project study intersections are unsignalized. As a result, a *no impact* would occur.

4. At a study, signalized intersection for all areas where the level of service is LOS E, the project would cause an increase in the average delay for any of the critical movements of six seconds or more, or degrade to worse than LOS E (i.e. LOS F);

Project study intersections are unsignalized. As a result, a *no impact* would occur.

5. At a study, signalized intersection for all areas where the level of service is LOS F, the project would cause (a) the total intersection average vehicle delay to increase by two or more seconds, or (b) an increase in average delay for any of the critical movements of four seconds or more; or (c) the V/C ratio exceeds 3 percent (but only if the delay values cannot be measured accurately).

Project study intersections are unsignalized. As a result, a *no impact* would occur.

6. At a study, unsignalized intersection the project would add ten or more vehicles and after project completion satisfy the Caltrans peak hour volume warrant.

The project is expected to add one additional AM peak vehicle trip and one additional PM peak trip. During the Sunday peak hour, additional trips generated by the project would be 21 trips.

Based on traffic counts conducted in March 2007 and the project's trip generation, the peak hour volumes would not satisfy Caltrans signal warrants, as detailed in Appendix I. Therefore, the additional trips generated would have a *less-than-significant* impact.

7. For a Congestion Management Program (CMP) required analysis, (i.e. projects that generate 100 or more PM peak hour trips) cause a roadway segment on the Metropolitan Transportation System to operate at LOS F or increase the V/C ratio by more than 3 percent for a roadway segment that would operate at LOS F without the project.

The project will not generate 100 or more trips. As a result, *no impact* would occur.

8. Result in substantially increased travel times for AC Transit buses; Thornhill Drive, the main roadway serving the Project site, currently has no AC Transit bus service. The closest AC Transit bus service, Routes 61 and CB, operate on Mountain Boulevard, roughly 0.4 miles away. Routes 61 and CB operates only on weekdays.

The project is expected to add one additional AM peak vehicle trip and one additional PM peak trip. During the Sunday peak hour, additional trips generated by the project would be 21 trips.

Because of the minimal trips generated by the Project for weekday peak-hours when the buses are running, it is not expected to increase travel times for AC Transit buses. Therefore, the additional trips generated would have a *less-than-significant* impact.

b. Other Thresholds

9. 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.

The project would not result in changes to existing air traffic patterns. Aircraft associated with the Oakland International Airport, which is the closest aviation facility to the project site, and is located approximately 8 miles to the south, would be traveling on a flight path that would avoid safety impacts associated with glare or obstructions. No other potential impacts to air traffic would occur. Therefore, *no impact* would occur.

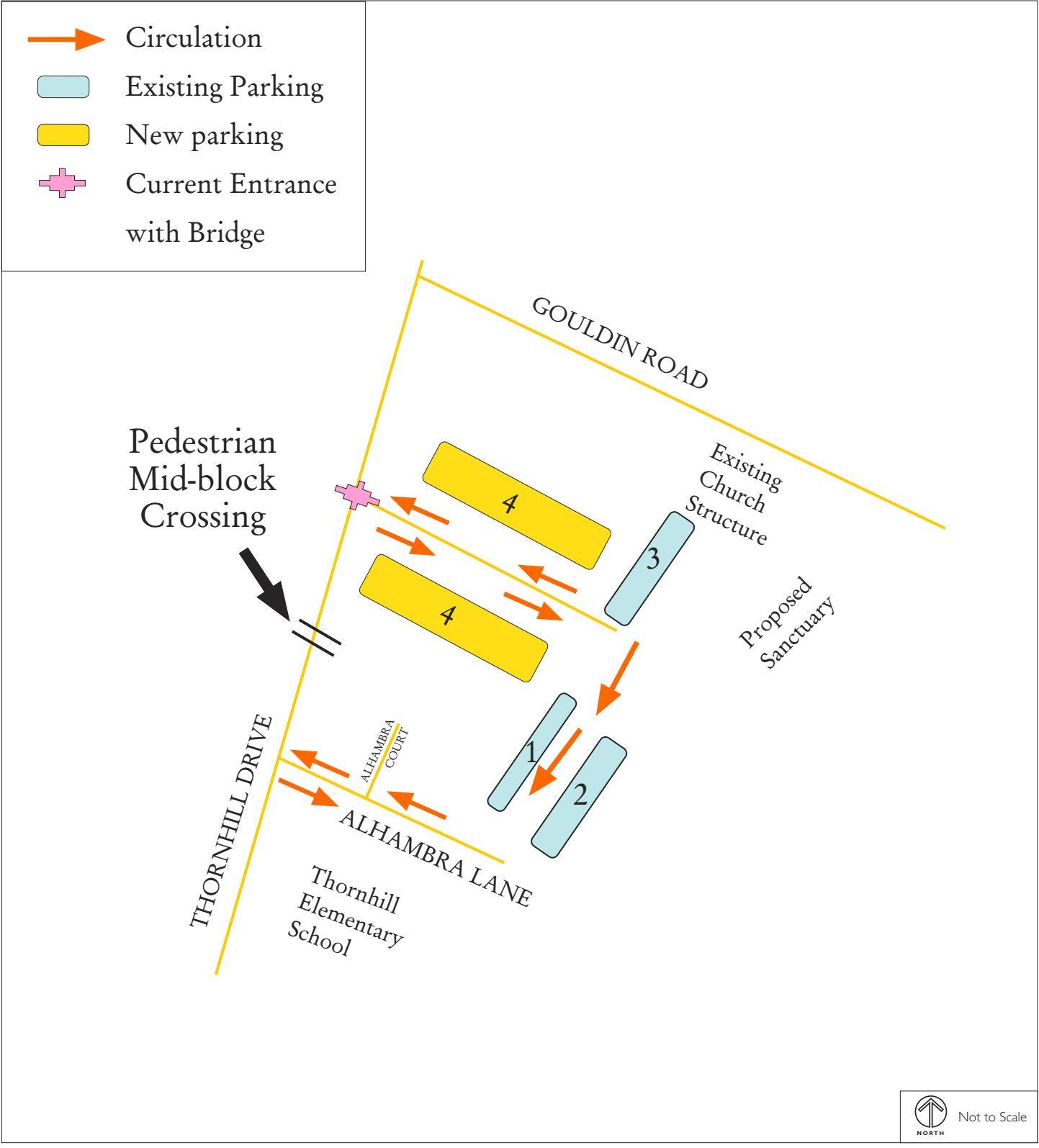
10. Substantially increase traffic hazards to motor vehicles, bicycles, or pedestrians due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment).

The proposed access bridge/driveway is located approximately 40 feet north of the existing mid-block crosswalk, as shown in Figure 4.4-6. Given the use of this crosswalk, particularly during the morning drop-off, there is the potential for increased conflict between vehicles entering and exiting the new driveway and pedestrians crossing the street. Specifically, vehicles exiting the proposed access bridge/driveway and making left-turns would need to watch for pedestrians crossing Thornhill Drive near or in the crosswalk as well as for gaps in traffic on Thornhill Drive. 85th percentile speeds, measured for 24 hours on August 26, 2008, were found to be about 35 mph, although slower during the morning peak-hour (about 25 mph). Additionally, sight distance in the southbound direction is about 50 feet when vehicles are parked on-street next to the proposed driveway. Without parking, sight distances would improve to over 500 feet. As a result, a potentially *significant* impact to pedestrians and motorists would occur. With the implementation of Mitigation Measure TRAF-1, this impact would be reduced to a *less-than-significant* impact.

Impact TRAF-1: Pedestrians crossing Thornhill Drive at the mid-block pedestrian crossing will be in close proximity to vehicles exiting the project site and turning left onto Thornhill Drive.

Mitigation Measure TRAF-1: The project applicant shall increase the visibility of the mid-block crosswalk and increase sight distance for vehicles exiting the project site by developing and submitting a plan to improve sight line distances and alert drivers exiting the site to the presence of pedestrians, subject to review and approval by City. Such a plan may include without limitation the following: Signage, flashing beacons, mid-block crosswalk treatments, foliage trimming, and restriction of on-street parking near the driveway entrance. The applicant shall implement the approved plan.

Significance after Mitigation: *Less than significant.*



Source: Dowling Associates, Inc., & DC&E

FIGURE 4.4-6
PROPOSED CIRCULATION

11. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions.

The estimated frontage of the project site along Thornhill Drive is approximately 120 feet and does not require a second emergency access route. Furthermore, emergency vehicle access is provided to the project site by the proposed bridge/driveway. The bridge meets the City of Oakland's minimum requirement width 20 feet for an access road and 5 feet for a pedestrian sidewalk. Currently, access to the project site does not meet the City's requirement of a grade of less than 18 percent, nor does it provide separated pedestrian pathways to provide safer pedestrian travel. The proposed bridge access road provides an improvement over current driveway on Gouldin Road that will meet the City's requirement. As a result, the project would have a *less-than-significant* impact on emergency access to and from the site.

12. Fundamentally conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The project does not fundamentally conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. However, due to the short distance between the proposed bridge and the pedestrian crossing, the safety of pedestrians may be at risk if a plan to improve sight lines and alert drivers to the presence of pedestrians is not developed and submitted to the City for review and approval. Safety of pedestrians crossing Thornhill Drive is addressed in response to criterion 1.a.10, above. If Mitigation Measure TRAF-1 is applied, a *less-than-significant* impact would occur under this criterion.

2. Cumulative Impacts

13. A project's contribution to cumulative impacts is considered "considerable" (i.e. significant) when the project exceeds at least one of the thresholds listed above under a future year scenario.

The project would generate an additional trip during the weekday morning and evening peak hours and an additional 21 trips during the Sunday peak hour. This amount of traffic would not be considered a substantial increase in traffic. During the Sunday peak hour, the unsignalized intersections currently serving the project site operate at LOS B. Future traffic conditions would not be adversely impacted due to the limited number of vehicle trips generated by the project and the expectation that the LOS of the intersections in the vicinity of the project in the already built-out area would not be reduced to substandard conditions. Therefore, a *less-than-significant* impact would occur.

3. Planning Related, Non-CEQA Issues

a. Parking Requirements

Although not a CEQA issue as previously discussed, this EIR evaluates if the project's estimated parking demand (both project-generated and project-displaced) would be met by the project's proposed parking supply or by the existing parking supply within a reasonable walking distance of the project site. Project-displaced parking results from the project's removal of standard on-street parking, City, or Redevelopment Agency owned/controlled parking and/or legally required off-street parking (non-open-to-the-public parking which is legally required).

The Church is not located in a specialized zoning area, according to the City of Oakland's General Plan map. Oakland's municipal code states that the off-street parking requirement for a church is one parking stall for each ten seats.¹⁰ Required dimensions for the 90-degree angle parking include a minimum 24-foot maneuvering aisle, at least 18 feet long and 8.5 feet wide for regular-sized parking stalls, and at least 16 feet long and 7.5 feet wide for compact-sized parking stalls. The same stall dimensions are required for 45-degree-angle parking stalls, but the maneuvering aisle only needs to be 12 feet. Required dimensions for the parallel parking include a minimum 12-foot ma-

¹⁰ City of Oakland, Municipal Code. Passed February 5, 2008. Code 17.116.070 Off-Street Parking – Civic Activities.

maneuvering aisle and at least 22 feet long and 8 feet wide for parking stalls.¹¹ For lots containing less than 100 parking stalls, an ADA accessible parking space must be provided for every 25 stalls, and at least one space must be able to accommodate a van.¹² Minimum dimensions for ADA accessible stalls are 18 feet long and 9 feet wide. Van spaces require an 8-foot aisle and vehicle spaces require a 5-foot aisle. Aisles may be located between two ADA accessible stalls for use by vehicles in both spaces.¹³

The proposed construction of the new sanctuary will result in a total of 259 seats (an increase of 34 seats, or a 15 percent increase over seating in the existing sanctuary), which means that 26 off-street parking stalls would be required. The project proposes 41 off-street parking stalls, including two handicap-accessible stalls. Thus, the Church is providing 15 parking stalls over the amount required by the City of Oakland's municipal codes. The Church will provide the following new parking arrangements, as shown on Figure 3-5:

- ◆ 27, 90-degree-angle parking stalls;
- ◆ five parallel parking stalls;
- ◆ nine, 45-degree-angle parking stalls, including two ADA accessible spaces.

Five parking stalls that are currently located near the existing Church building will be retained and unaltered. The dimensions of the 90-degree-angle parking stalls are 16.5 feet long and 9.5 feet wide, which means that they must be designated as compact spaces. Additionally, the width of the maneuvering aisle is 24 feet, which meets the minimum thresholds for 90-degree-angle parking stalls. The maneuvering aisle serving the 90-degree parking may be too narrow for two-way traffic, if non-compact vehicles park in the stalls and jut out into the maneuvering aisle.

¹¹ City of Oakland, Municipal Code. Passed February 5, 2008. Code 17.116.200 Parking space dimensions.

¹² *Technical Bulletin: Parking*. United States Access Board. Washington, DC.

¹³ California Building Code 1129B – Accessible Parking.

The dimensions of the parallel parking stalls are 22 feet long and 8 feet wide with a 13.5-foot maneuvering aisle. These meet the minimum thresholds for parallel parking stalls. The dimensions of the 45-degree-angle parking stalls are 18 feet long and 8.5 feet wide with a 13.5-foot maneuvering aisle. These meet the minimum thresholds for 45-degree-angle parking. The two ADA-accessible spaces consist of one that is for vans and the other for cars. They are 18 feet long and share a loading/unloading aisle. The loading/unloading aisle and parking stall widths will need to be at least 8 feet and 9 feet, respectively, per California Building Codes.

A count conducted on Sunday, September 21, 2008 found that 59 cars were parked in Church's parking lot at its peak and 20 cars were parked on the Thornhill Elementary school's blacktop, for a total of 79 at off-street lots. Parking occupancies at on-street locations around the Church on Sunday, September 21, 2008 ranged from 26 (38 percent of the total on-street parking available) at 7:00 a.m., the beginning of church services, to 38 (56 percent of the total on-street parking available) at 11:15 a.m. at the height of church services. Most of the increase in on-street parking was found on Thornhill Drive between Alhambra Lane and Grisborne Avenue.¹⁴ For purposes of this analysis, it is conservatively assumed that the 12-car increase in parking occupancy on-street was completely attributable to St. John's Church patrons. This, it appears that total existing parking demand from St. John's Church patrons on a typical Sunday at the off-street lots and on-street is approximately 91 vehicles.

As previously noted, construction of the new sanctuary would result in an increase of 34 seats (15 percent increase) within the Church. This increase in number of seats would mean that parking demand could increase by 14 to 105 parked cars for the Church's Sunday peak-hour. The proposed 41 spaces at the Church's parking lot on-site do not meet the existing or projected parking

¹⁴ Dowling Associates, Inc., Addendum to Supplemental Transportation Study for St. John's Church Renovation Memorandum, September 23, 2008, page 8.

demand and may result in an increase of on-street parking by Church attendees.

The blacktop at Thornhill Elementary School is currently used to handle the existing overflow. It has room for approximately 60 vehicles, which can accommodate most of the increased demand for parking attributed to this project. Additionally, on-street parking in the area around the Church appears to be under-utilized and could accommodate a minimal increase in parking by Church patrons.

As noted, parking requirements are considered planning-related or non-CEQA issues as parking pertains to land use compatibility with construction and operation of the proposed project. As a part of the process by which the City approves entitlements for development, the City will require that Standard Conditions of Approval should be implemented as part of this project.

Standard Condition of Approval TRAF-1: Parking and Transportation Demand Management. *Prior to issuance of a final inspection of the building permit.* The applicant shall submit for review and approval by the Planning and Zoning Division a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The applicant shall implement the approved TDM plan. The TDM shall include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use. All four modes of travel shall be considered. Strategies to consider include the following:

- a. Inclusion of additional bicycle parking, shower, and locker facilities that exceed the requirement
- b. Construction of bike lanes per the Bicycle Master Plan; Priority Bikeway Projects
- c. Signage and striping onsite to encourage bike safety
- d. Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient crossing at arterials

- e. Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.
- f. Direct transit sales or subsidized transit passes
- g. Guaranteed ride home program
- h. Pre-tax commuter benefits (checks)
- i. On-site car-sharing program (such as City Car Share, Zip Car, etc.)
- j. On-site carpooling program
- k. Distribution of information concerning alternative transportation options
- l. Parking spaces sold/leased separately
- m. Parking management strategies; including attendant/valet parking and shared parking spaces

To further implement Standard Condition of Approval TRAF-2, the Church shall develop a memorandum of understanding with Thornhill Elementary School to utilize the school's blacktop, as needed, for non-construction parking during the summer when school is not in session.

Standard Condition of Approval TRAF-2: Construction Traffic and Parking. *Prior to the issuance of a demolition, grading or building permit.* The project applicant and construction contractor shall meet with appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the Planning and Zoning Division, the Building Services Division, and the Transportation Services Division. The plan shall include at least the following items and requirements:

- a. A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.

- b. Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
- c. Location of construction staging areas for materials, equipment, and vehicles at an approved location.).
- d. A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services.
- e. Provision for accommodation of pedestrian flow.
- f. Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces.

E. Cumulative Impacts

As previously discussed under the criteria, no other projects of similar scope are planned or pending within the vicinity of the project.¹⁵ Individual development will occur as allowed by the City of Oakland General Plan and Zoning Ordinance. However, a substantial degradation of intersection operations is not anticipated and would not combine with the project to significantly impact traffic and circulation. As a result, a *less-than-significant* cumulative impact to traffic and circulation would occur.

¹⁵ Clevenger, Ann. Personal communication with DC&E, November 9, 2010.

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5 ALTERNATIVES TO THE PROPOSED PROJECT

The St. John's Church project, as proposed by the applicant, has been described and analyzed in the previous chapter with an emphasis on potentially significant impacts and Standard Conditions of Approval and recommended mitigation measures to avoid those impacts. The State CEQA Guidelines require the description and comparative analysis of reasonable alternatives to the proposed project that could feasibly attain the objectives of the project, while avoiding potential impacts.¹

The following discussion is intended to inform the public and decision makers of the feasible alternatives. Three alternatives are evaluated in detail in Sections A-C below. Five additional alternatives were considered but were deemed infeasible and not further studied in detail. These alternatives include access through Alhambra Court, an alternate location for the ingress road from Gouldin Road, an alternative bridge location over Temescal Creek, alteration of the existing church, and an off-site location for the proposed sanctuary. These are discussed in Section D below.

The following discussion includes analysis of Aesthetics, Biological Resources, Hydrology and Water Quality, Land Use and Traffic and Circulation. Land Use impacts were not discussed in Chapter 4 of this EIR because the proposed project would not result in any significant land use impacts. However, because Alternatives 2 and 3 would change the configuration of the project, this analysis includes discussion of land use and land use conflicts. Other issues were not included within Chapter 4 or the following alternatives analysis because no significant impacts were identified.

CEQA Guidelines require consideration of a "No Project Alternative" in every EIR. The No Project Alternative is an alternative to the project in which no further development would take place on the project site.

CEQA Guidelines also require that the environmentally superior alternative be designated. If the alternative with the least environmental impact is the

¹ CEQA Guidelines, Section 15126.6.

No Project Alternative, then the EIR must also designate the next most environmentally superior alternative.

The three alternatives that are evaluated in detail are listed below and are compared in Table 5-1, and discussed in detail in Sections A-C below

1. Alternative 1 - No Project Alternative

This alternative assumes that no further development within the project site would take place. The Phase 1 reconfiguration of the project site would not occur and parking lot improvements would not be made. The proposed Phase 2 sanctuary would not be constructed, all existing ingress and egress locations would be maintained, and the bridge over Temescal Creek would not occur. The church would continue to operate under current conditions.

2. Alternative 2 - Existing Gouldin Road/Alhambra Lane Access (One-Way/No Bridge)

The Gouldin Road access driveway would be redesigned and would connect to Alhambra Lane retaining the existing circulation pattern and ingress/egress points. Construction of the bridge access over Temescal Creek would not occur and the Alhambra Lane exit would be rehabilitated within the project site to meet City of Oakland requirements. The sanctuary would be located within the project site, but not at the proposed location, due to the continued use of the Gouldin Road access point.

3. Alternative 3 - Gouldin Road Access (Two-way/No Bridge)

The Gouldin Road access driveway would be redesigned and expanded to include both vehicle ingress and egress lanes. Construction of the bridge access over Temescal Creek would not occur, and the existing Alhambra Lane egress would be rehabilitated within the project site to meet City of Oakland requirements, but would not be used as the primary egress road. The construction of the sanctuary would be located within the project site, but not at the proposed location due to the location of the ingress road.

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 ALTERNATIVES TO THE PROPOSED PROJECT

TABLE 5-1 **COMPARISON OF PROJECT ALTERNATIVES**

Topic	Proposed Project	Alternative 1 – No Project	Alternative 2 – Existing Gouldin Road/ Alhambra Lane Access (One-Way/No Bridge)	Alternative 3 – Gouldin Road Access (Two-Way/No Bridge)
Project Components				
Trees Removed/Protected	65 (56 protected)	0	81 (73 protected)	81 (73 protected)
Trees Preserved	90	155	74	74
Stormwater Treatment	Stormwater filtration in parking areas	Stormwater filtration in parking areas	Stormwater filtration in parking areas	Stormwater filtration in parking areas
Stormwater Runoff	3.3 CFS	3.3 CFS	3.97 CFS	3.97 CFS
Building Location	Adjacent to existing Church	No new construction	Adjacent to Temescal Creek and 5940 Thornhill Drive	Adjacent to Temescal Creek and 5940 Thornhill Drive
Bridge	Bridge	No Bridge	No Bridge	No Bridge
Creek Bank Alterations	Under and immediately upstream and downstream of bridge	No change	No Change	No Change
Cut	278 Cubic Yards	No change	730 Cubic Yards	747 Cubic Yards
Fill	123 Cubic Yards	No change	2170 Cubic Yards	2170 Cubic Yards
Net Import/Export	155 Cubic Yards Export	No change	1440 Cubic Yards Import	1423 Cubic Yards Import
Primary Ingress	Bridge from Thornhill Drive	Existing one-way driveway from Gouldin Road	Re-graded one-way driveway from Gouldin Road	Re-graded two-way driveway from Gouldin Road - requires retaining wall that cannot be built due to existing City easement
Primary Egress	Bridge from Thornhill Drive	Existing one-way driveway to Alhambra Lane	Re-graded driveway to Alhambra Lane - would not meet City Fire Department standards for slope	Re-graded two-way driveway to Gouldin Road - requires retaining wall that would not be allowed due to existing City easement

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TABLE 5-1 **COMPARISON OF PROJECT ALTERNATIVES** (CONTINUED)

Topic	Proposed Project	Alternative 1 – No Project	Alternative 2 – Existing Gouldin Road/ Alhambra Lane Access (One-Way/No Bridge)	Alternative 3 – Gouldin Road Access (Two-Way/No Bridge)
ADA Access	ADA access over bridge	No ADA access	No ADA access due to grade from Gouldin Road	No ADA access due to grade from Gouldin Road
Emergency Access	Meets City Standards – 2-way bridge, circle turnaround within site	Does not meet City Standards	Meets City Standards - Ingress/egress through one-way driveway on Gouldin Road, 3-point turnaround within site	Meets City Standards - Ingress/egress through two-way driveway on Gouldin Road, 3-point turnaround within site
Parking Spaces	41 (including 2 ADA stalls)	56	32 (including 2 ADA stalls)	32 (including 2 ADA stalls)
Environmental Topics				
Aesthetics	LTS	LTS ↓	LTS ↑	LTS ↑
Biological Resources	SBM	LTS ↓	LTS ↓	LTS ↓
Hydrology and Water Quality	LTS	LTS ↓	LTS	LTS
Land Use	LTS	LTS ↓	LTS ↑	LTS ↑
Traffic & Circulation	SBM	LTS	LTS ↑	LTS ↑

Notes:

LTS - Less than Significant

SBM - Significant but Mitigable

SU - Significant Unavoidable Impact

↑ Greater impacts than Project

→ Same impacts as Project

↓ (down arrow) Fewer impacts than Project

A. Alternative 1 - No Project Alternative

1. Principal Characteristics

The Phase 1 reconfiguration of the project site would not occur and no improvements to the St. John parking lot would occur. All ingress and egress locations would be maintained. Construction of the bridge over Temescal Creek would not occur, all existing vegetation and mature trees would not be altered, and the proposed Phase 2 sanctuary would not be constructed.

2. Impact Analysis

a. Aesthetics

This alternative would not alter any views into, from or across the project site. All currently existing trees will remain and all current views into the project site will remain intact. This alternative would result in fewer impacts when compared to the proposed project.

b. Biological Resources

This alternative would not alter the channel or banks of Temescal Creek and no trees would be removed as proposed by the Project. The current habitat value of the Temescal creek within the project site is considered to be extremely limited.² This alternative will maintain the creek in its current condition. Under this alternative, no trees or invasive plant species would be removed. The proposed project recommends the removal of 65 trees, including 56 protected trees, under the proposed project. Of the 65 trees to be removed, 47 are to be removed because of their poor condition and unsuitability for preservation.³ Because invasive plant species would not be replaced with native species, this alternative may result in greater biological impacts when compared to the proposed project. However, the No Project Alternative avoids potential impacts to the California red-legged frog, use of mechanized equipment in the creek channel, and permanent loss of riparian habitat (albeit marginal), which are reduced to less-than-significant levels under the

² Environmental Collaborative, Biological Resource Conditions, May 28, 2010, page 2.

³ HortScience, Tree Report, March 6, 2009, Table 3, page 8.

proposed project. On balance, this alternative has fewer biological impacts than the project.

c. Hydrology and Water Quality

This alternative would not alter the existing creek channel or banks and the existing site drainage would be maintained. The proposed project includes pervious parking areas that will serve to filter stormwater before entering Temescal Creek. Currently, there is no on-site stormwater treatment or detention, and peak stormwater runoff has been calculated to be 3.3 cubic feet per second during a ten-year/ten minute event.⁴ The project proposes modifications to the banks of Temescal Creek under the proposed bridge to provide stability. Other changes to the creek banks proposed by the Project include removal of invasive plant species along the creek and installation of native species. Construction impacts related to the proposed bridge would not occur under this alternative. The operation of the proposed project will not result in any significant impacts to hydrology and water quality. Because this alternative would not include construction-related impacts, this alternative would result in less impacts when compared to the proposed project.

d. Land Use

This alternative would not alter the existing land use conditions of the project site. The existing site does not fundamentally conflict with nearby or adjacent land uses. Because the proposed project does not result in any impacts to land use, this alternative is considered to have less impacts when compared to the proposed project.

e. Traffic and Circulation

This alternative would result in vehicles continuing to use the Gouldin Road ingress point and the Alhambra Lane egress point for traveling to and from the project site resulting in the difficult turning movements at Alhambra Lane under existing conditions. The No Project Alternative would contain 56 des-

⁴ Kamman Hydrology & Engineering, Inc., Hydrology Report, May 26, 2010, Table 5, page 8.

ignated parking stalls but the site can accommodate more parked vehicles in undesignated locations within the property. The proposed project would include 41 parking stalls. The proposed project and No Project Alternative would be in compliance with the Oakland Municipal Code. Under the No Project Alternative, the current configuration of Alhambra Lane, which does not meet the Oakland Fire Department requirements of 20 feet minimum road width and 18 percent the slope, would remain.

The existing substandard condition at the Alhambra Lane/Thornhill intersection would remain. The Alhambra Lane/Thornhill Drive intersection is a T-intersection, limiting vehicular movements to left and right turns from Alhambra Lane onto Thornhill Drive. Most vehicles when waiting for a gap in traffic to allow for turning onto Thornhill Drive would block the crosswalk across Alhambra Lane. Sight distance to the south is limited to 145 feet and sight distance to the north is 77 feet.⁵ According to the Highway Design Manual, corner sight distance should be 275 feet in each direction at this unsignalized intersection. Thus, the corner sight distance at this intersection is sub-standard. However, without the proposed project, the applicant could perform foliage trimming on its property and request parking restrictions.

Since cars exiting the Church property would continue to use Alhambra Lane to access Thornhill Drive, and because Alhambra Lane does not meet City emergency vehicle standards, this alternative may have greater impacts when compared to the proposed project. However, this alternative avoids potential impacts associated with the project's mid-block crossing, which can be mitigated to less-than-significant levels.

⁵ Dowling Associates, Addendum to the Supplemental Transportation and Parking Study for the Renovation at St. John's Episcopal Church, September 23, 2008.

B. Alternative 2 - Existing Gouldin Road/Alhambra Lane Access (One-Way/No Bridge)

1. Principle Characteristics

As shown in Figure 5-1, the Gouldin Road access driveway would be redesigned and re-graded to meet Oakland Fire Department requirements. Construction of the bridge access over Temescal Creek would not occur. Within the project site, the Alhambra Lane egress would be rehabilitated to meet Oakland Fire Department minimum requirements of 20-foot width and 18 percent slope. This driveway would be used as the primary egress. Emergency vehicles would also be able to exit through the Gouldin Road driveway, by using the drop-off area which would be designed for such purpose. This alternative would include 32 parking spaces, including 2 ADA spaces.

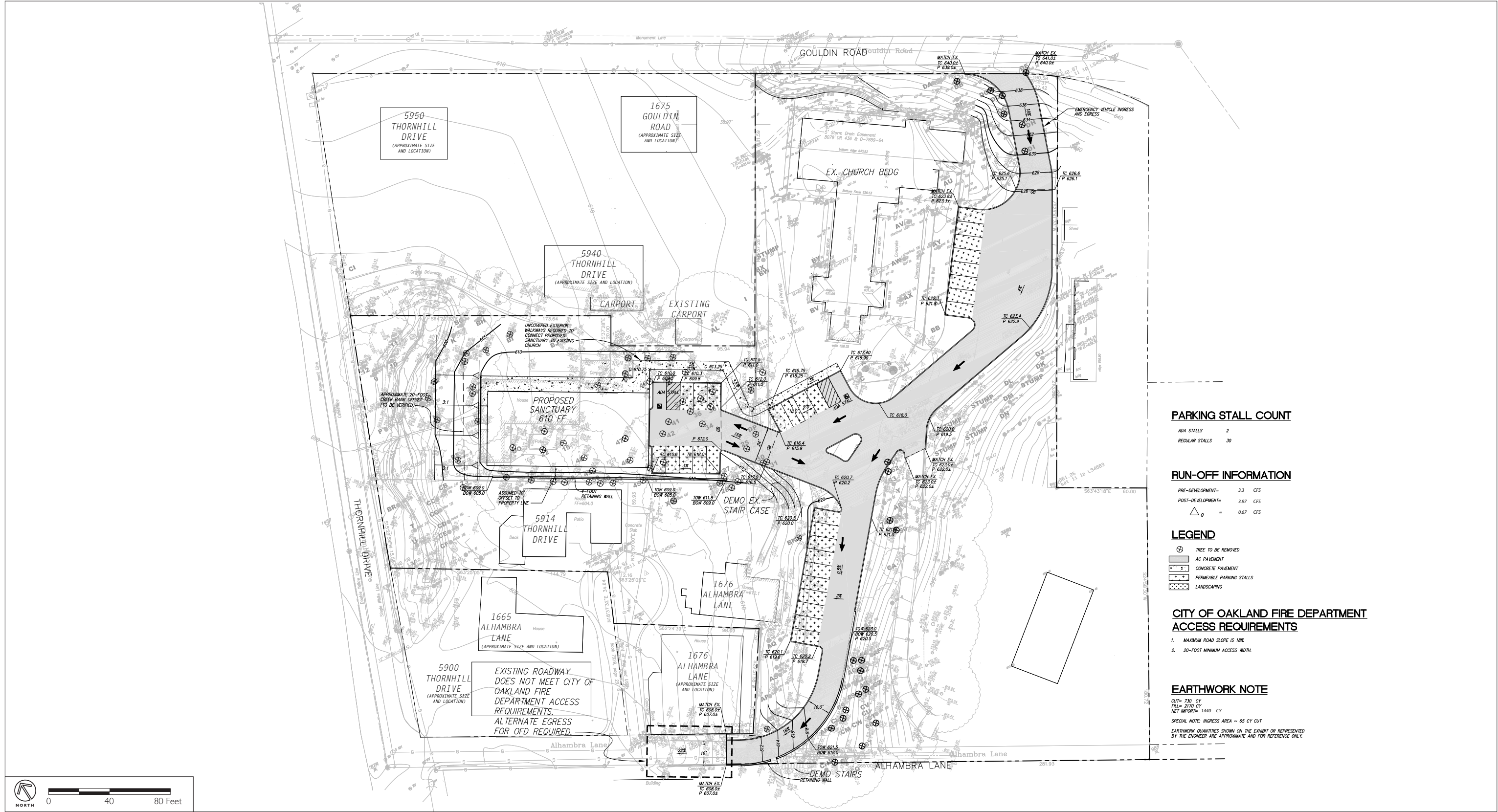
The sanctuary would be located within the project site, adjacent to Temescal Creek and 5940 Thornhill Drive. The location of the sanctuary was chosen due to limited area within the site to construct a building of similar size as proposed by the Project. Given the location of the sanctuary in this alternative, it would be constructed in a location to best minimize impacts to the creek and biological resources. Construction of the sanctuary would require the demolition of the single-family home located at 5928 Thornhill Drive.

The configuration of this alternative would require the removal of 81 (73 protected) trees to accommodate vehicle circulation, parking, and the location of the sanctuary.

2. Impact Analysis

a. Aesthetics

When compared to the proposed project, this alternative would result in a sanctuary of similar size (no larger than 5,500 square feet, and 33-feet tall), however, the sanctuary would be located adjacent to Temescal Creek. This alternative results in the sanctuary being in close proximity to both the creek and the property line of 5940 Thornhill Drive. This alternative would necessitate the demolition of the single-family home located at 5928 Thornhill Drive. Because the sanctuary would be located in close proximity to



Thornhill Drive when compared to the proposed project, this alternative would result in a change in character for that portion of the project site. The height and location of the sanctuary would result in building site coverage occurring over a larger area, as opposed to concentrating the buildings in one area and maintaining a more expansive open view throughout the site. Similar to the project, this alternative would propose alterations to the project site that would be consistent with the purposes and intent of the City's design review criteria. Views into and across the project site would be impacted as the sanctuary in this alternative would be in the location of the parking area of the proposed project.

This alternative would result in the removal of 81 trees (73 protected) to accommodate the re-located sanctuary. Although no trees would be removed along Thornhill Drive, this alternative includes the removal of trees BD, BI, F, and H, which are located between the sanctuary and the adjacent residence located at 5940 Thornhill Drive. These trees would be preserved as part of the proposed project. With the removal of these trees, the sanctuary would be more visible to local residents.

Similar to the proposed project, this alternative would not cast shadows that would impair the function of facilities that use passive solar heat collection, solar collectors, hot water heating or photovoltaic solar collectors. In addition, any shadow cast by the sanctuary would not impair the beneficial use of any public or quasi-public park, lawn, garden, or open space. Under this alternative, no bridge is proposed. As such, shadows cast by the bridge would not occur under this alternative, and shadow patterns along the creek would not be affected.

This alternative would introduce additional light and glare to the area adjacent to the sanctuary. Under the proposed project, this area would be used for parking and vehicle circulation. The sanctuary, under this alternative, would increase the level of light and glare resulting from exterior and internal lighting of the sanctuary. Similar to the proposed project, the additional light and glare from the sanctuary would not result in a significant impact. How-

ever, because this light and glare would be of greater intensity under this alternative, adjacent properties could be affected. The combination of removing trees and the addition of increased light and glare would result in greater impacts when compared to the proposed project.

b. Biological Resources

Under this alternative, vehicle access to the site would be located along Gouldin Road and would not require the construction of a bridge spanning Temescal Creek.

The proposed project includes the protection of 90 trees and the removal of 65 trees due to construction and maintaining the overall health of vegetation within the project site. This alternative would preserve 74 trees and would require the removal of 81 trees due to direct development impacts (construction of sanctuary, driveway, parking area, etc.), resulting in a significant but mitigable impact to biological resources. Of the 81 trees to be removed, 73 are protected by the City of Oakland Protected Tree Ordinance.

This alternative would require the removal of several prominent trees that would otherwise be preserved under the proposed project. Included among the trees to be removed (but preserved by the Project) are three coast redwoods with trunk diameters of 36 inches (Tree BD), 56 inches (Tree X) and 61 inches (Tree H). These trees are shown on Figure 5-1. Because this alternative would remove more trees than would be required as part of the proposed project, this alternative would result in greater impacts to biological resources relating to trees. However, this alternative avoids potential impacts to the California red-legged frog, use of mechanized equipment in the creek channel, and permanent loss of riparian habitat (albeit marginal), which are reduced to less-than-significant levels under the proposed project. On balance, this alternative has fewer biological impacts than the project.

c. Hydrology and Water Quality

Due to the location of the sanctuary under this alternative, vehicle access to the site would be substantially different when compared to the proposed pro-

ject, resulting in an additional 0.6 acres of impervious surface.⁶ Parking spaces would be constructed with gravel and would serve as stormwater treatment areas before water enters Temescal Creek. The proposed project would result in stormwater runoff of 3.3 cubic feet per second (CFS). This alternative would result in stormwater runoff of 3.97 (CFS), which would be more than the proposed project but would result in a less-than-significant impact.

Because this alternative does not propose a bridge over Temescal Creek, no modifications to the creek banks would be made. A limited area adjacent to the creek would be graded for construction of the proposed sanctuary, but the building would be over 35 feet from the top of the bank.

Compared to the proposed project, this alternative would have similar impacts on Temescal Creek, as it would not discharge a substantial amount of pollutants into Temescal Creek, nor would it deposit a substantial amount of new material into the creek or cause substantial bank erosion or instability.

Overall, this alternative would have less hydrological impacts when compared to the proposed project because it does not disturb the creek.

d. Land Use

This alternative would result in the construction of a sanctuary similar in size to the proposed project, but in a different area of the project site. Vehicles would have access to the site through a one-lane, ingress driveway from Gouldin Road and a one-way egress driveway to Alhambra Lane.

Due to site constraints, this alternative would locate the sanctuary within 20 feet of the property line between the project site and 5940 Thornhill Drive. Although the location of the sanctuary does not result in a fundamental conflict with adjacent uses, the location will result in parishioners converging in an area of the project site that would otherwise be used for parking. The

⁶ Rothman, Rebecca. Project Engineer, Sandis Engineering. Personal conversation with DC&E, October 29, 2008.

noise associated with the presence of parishioners could result in an annoyance to neighbors as church services and meetings are held within sanctuary.

The land use of this alternative would differ from the proposed project by not grouping the sanctuary with the existing hall. Instead, the sanctuary would be located adjacent to Temescal Creek and 5940 Thornhill Drive. By locating the sanctuary adjacent to the creek, this alternative would not provide a connection or an outdoor, informal meeting area between the two structures.

When compared to the proposed project, this alternative would result in greater impacts to land use.

e. Traffic and Circulation

This alternative would not include the bridge over Temescal Creek. Vehicles would enter the project site from Gouldin Road and exit the site through the existing driveway on Alhambra Lane. In order to allow emergency vehicle access to the site, this alternative would require re-grading of the existing Gouldin Road ingress to reduce the grade from 23 percent to 18 percent.⁷ The design of the re-graded road would involve extensive disturbance to the frontage and would result in 65 cubic yards of cut to allow for the proper grade and required 20-foot width.⁸ As a result, the existing meditation garden adjacent to the existing church hall, and seven trees preserved under the proposed project, would be removed.

Pedestrian access, in compliance with the American with Disabilities Act (ADA), cannot be achieved under this alternative. In order for an ADA compliant ramp to be constructed from Gouldin Road, a series of switch-backs, landing areas and retaining walls would be required. Two conceptual designs for ADA access from Gouldin Road into the project site are shown on Figures 5-2 and 5-3. Development restrictions associated with the City of

⁷ City of Oakland Fire Prevention Bureau. Fire Apparatus Access Standards, Design Requirements for Local Streets and Shared Access Facilities.

⁸ City of Oakland Fire Prevention Bureau. Fire Apparatus Access Standards. Illustration Adapted from 2007 California Fire Code- Appendix D 103.1.

ADA ACCESS - CONCEPTUAL DESIGN I

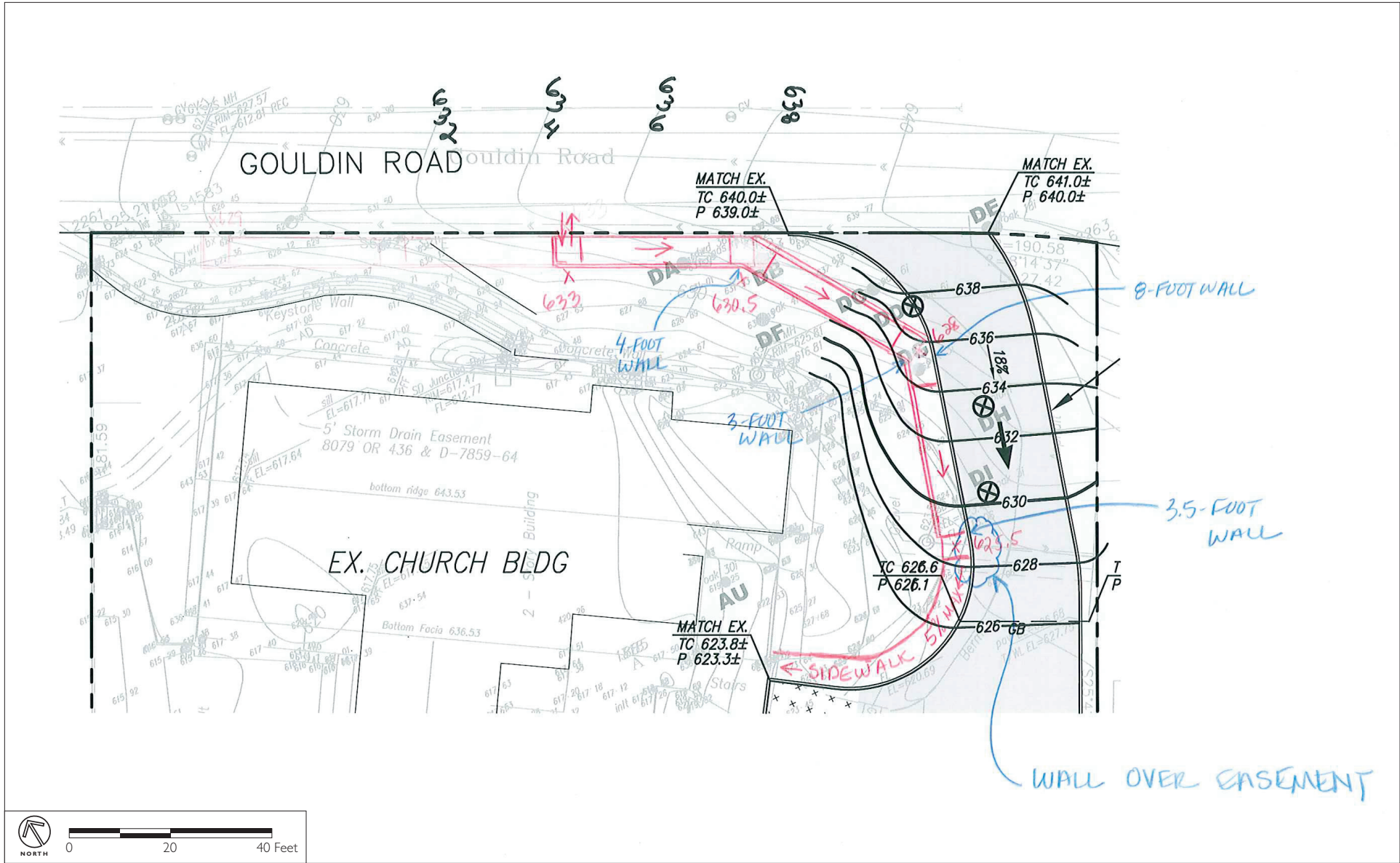


FIGURE 5-3

Oakland public conduit easement located within the project site, and adjacent to Gouldin Road, prohibits the construction of retaining walls over the easement. Because retaining walls would be required over the conduit easement, ADA access cannot be achieved.⁹

Under this alternative, the egress driveway on Alhambra Lane, outside of the project site, does not meet the Oakland Fire Department standards for slope and road width. To ensure that emergency vehicles have access to the site, the internal roadway will allow for emergency vehicle access to complete a 3-point turnaround within the project site, shown in Figure 5-4. This will allow for emergency vehicles to exit the project site through the ingress point on Gouldin Road.¹⁰

This alternative will require all non-emergency vehicles to exit the site through the existing egress point on Alhambra Lane. Although improvements can be made within the Church's property to meet Oakland Fire Department emergency access requirements, improvements to road width and slope of the driveway outside of the property are not feasible.¹¹ As a result, driver sightlines as they exit the site through the egress driveway would be limited, as presently exists.

The existing substandard condition at the Alhambra Lane/Thornhill intersection would remain. The Alhambra Lane/Thornhill Drive intersection is a T-

⁹ This determination was made in consultation with Sandis Engineers. Figures 5-2 and 5-3 were developed based on this consultation.

¹⁰ Basada, Philip, Fire Protection Engineer, City of Oakland Fire Department. Personal communication with Sandis Engineering, October 9, 2008.

¹¹ Alhambra Lane is a public road, approximately 18-feet wide, that is constrained by Thornhill Elementary, Alhambra Court, and 1670 Alhambra Lane. Improvements to the road would require re-engineering of the retaining wall adjacent to Thornhill Elementary, and the relocation of the driveway to 1670 Alhambra Lane. To meet OFD requirements for slope, the driveway from the project site would extend into Alhambra Court, necessitating the realignment of the privately-owned court.

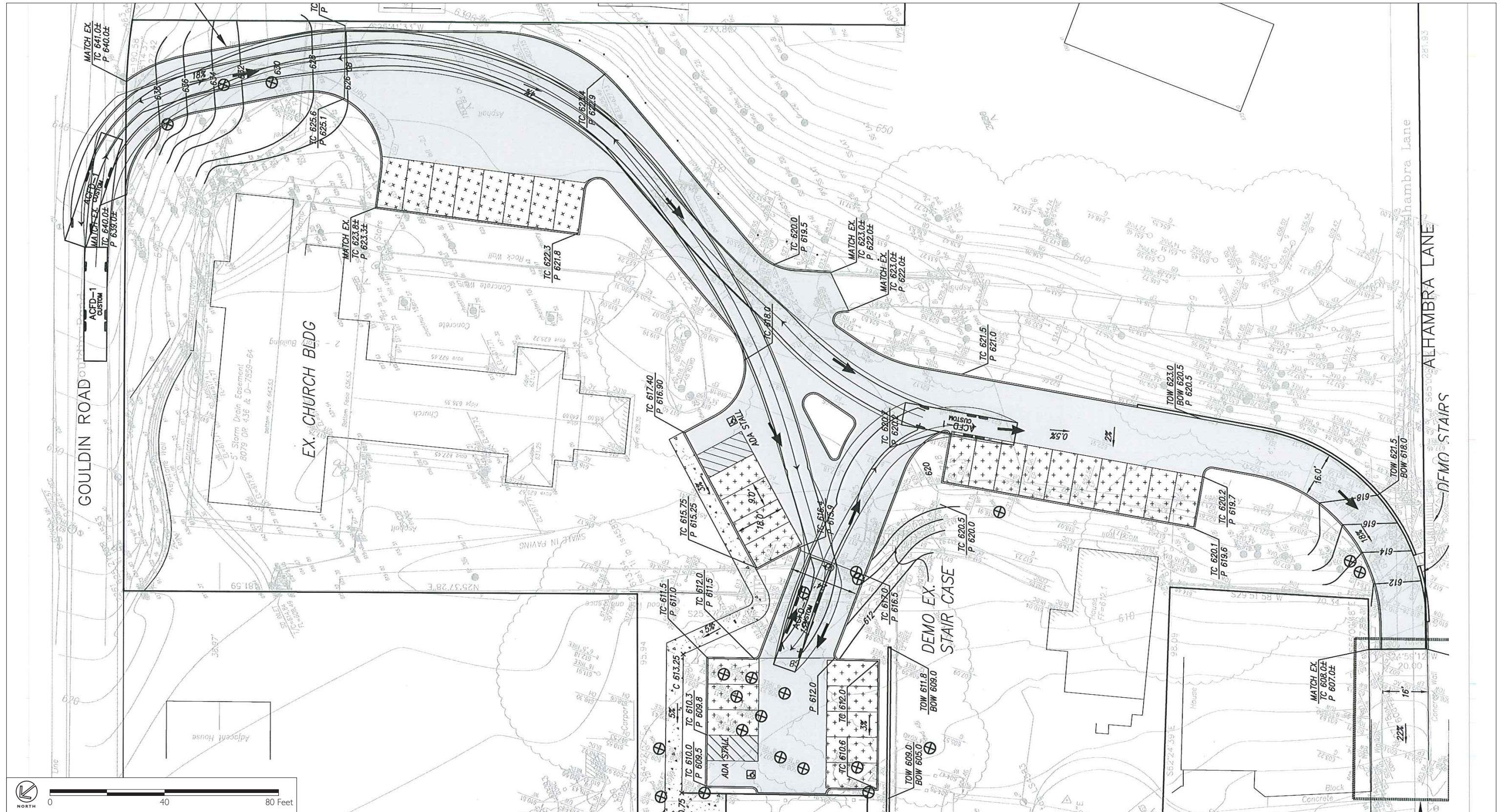
intersection, limiting vehicular movements to left and right turns from Alhambra Lane onto Thornhill Drive. Most vehicles when waiting for a gap in traffic to allow for turning onto Thornhill Drive would block the crosswalk across Alhambra Lane. Sight distance to the south is limited to 145 feet and sight distance to the north is 77 feet.¹² According to the Highway Design Manual, corner sight distance should be 275 feet in each direction at this unsignalized intersection. Thus, the corner sight distance at this intersection is sub-standard. However, without the proposed project, the applicant could perform foliage trimming on its property and request parking restrictions.

Parking spaces would be reduced from 41 under the proposed project to 32 stalls under this alternative, due to the relocation of the proposed sanctuary. The loss of 9 parking spaces would result in vehicles parking in the adjacent neighborhood and school parking lot. Mitigation measures, including a parking plan, and the coordinated use of local parking areas, including Thornhill School, and a valet system would be required to alleviate parking demand during Sunday services. An area that currently contains five informal parking spaces adjacent to the existing St. John's hall was not considered for vehicle access under this alternative because limited area was available for turnaround. Additionally, vehicle access to this area would require the removal of four parking spaces.

However, this alternative avoids potential impacts associated with the project's mid-block crossing, which can be mitigated to less-than-significant levels.

Based on constrained emergency vehicle access, parking space reduction, no ADA access, and intersection safety, this alternative would result in greater (albeit still less-than-significant) impacts when compared to the proposed project.

¹² Dowling Associates, Addendum to the Supplemental Transportation and Parking Study for the Renovation at St. John's Episcopal Church, September 23, 2008.



Source: Sandis Engineers

FIGURE 5-4

EMERGENCY VEHICLE TURNING TEMPLATE

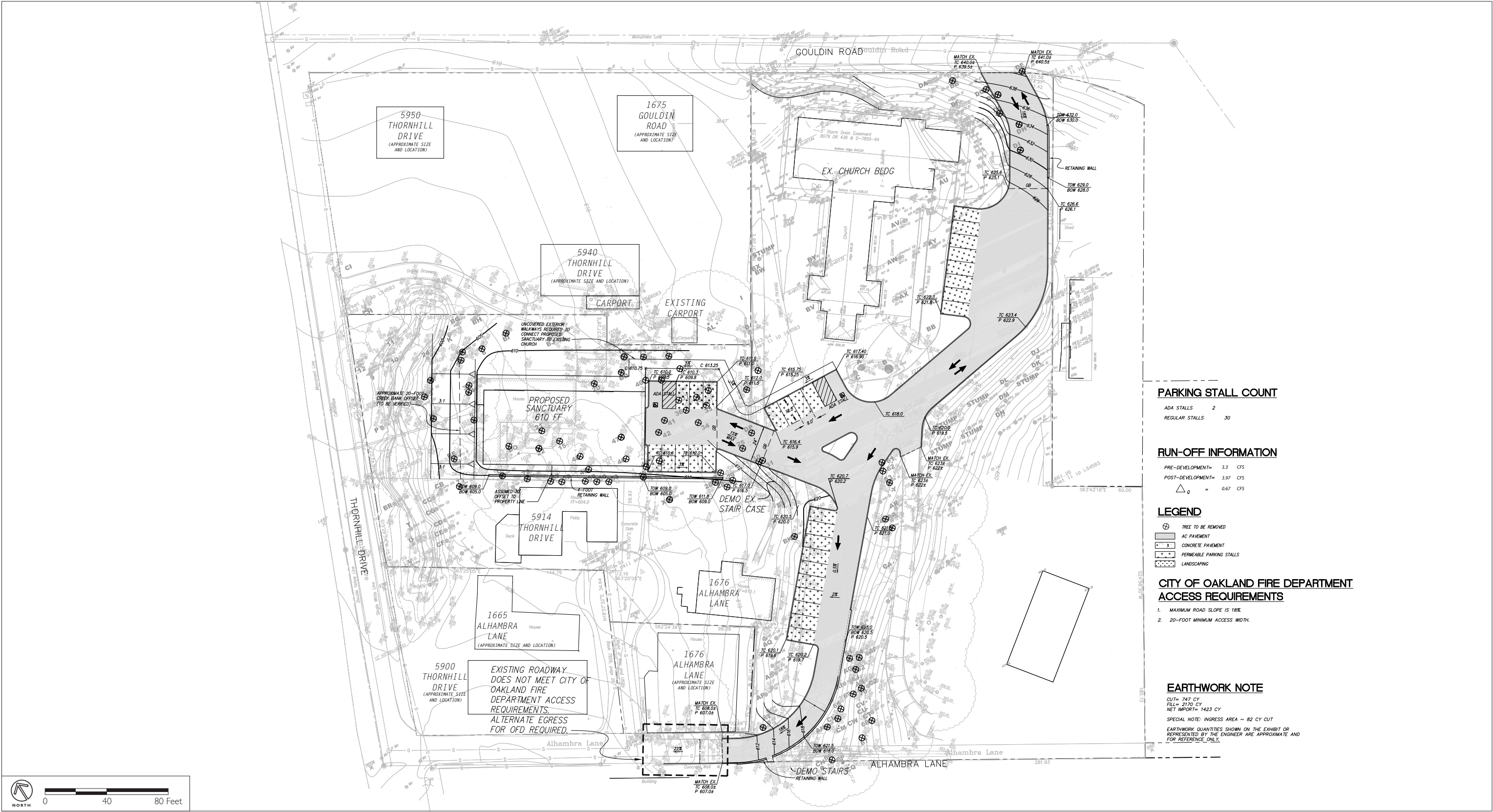


FIGURE 5-5
ALTERNATIVE 3 - GOULDIN ROAD ACCESS (TWO-WAY/NO BRIDGE)

C. Alternative 3 - Gouldin Road Access (Two-Way/No Bridge)

1. Principle Characteristics

As shown in Figure 5-5, the Gouldin Road access driveway would be redesigned and regraded to allow for two-way traffic. Construction of the bridge access over Temescal Creek would not occur. The two-way driveway from Gouldin Road would provide primary ingress and egress to the project site and would connect to a regraded parking area that would allow for egress from the site through a rehabilitated Alhambra Lane driveway. The Alhambra Lane egress would not be used as the primary egress. Site configuration would allow for vehicles and emergency vehicles to turnaround within the project site and exit Gouldin Road. This alternative would include 32 parking spaces, including two ADA spaces.

Similar to Alternative 2, the sanctuary, similar in size to the proposed project, would be located within the project site, adjacent to Temescal Creek and 5940 Thornhill Drive. Construction of the sanctuary would require demolition of 5928 Thornhill Drive. Creek improvements similar to those proposed by the Project would be included within this alternative.

The configuration of this alternative would require the removal of 81 trees to accommodate vehicle circulation, parking, and the location of the sanctuary.

2. Impact Analysis

a. Aesthetics

When compared to the proposed project, this alternative would result in a sanctuary of similar size (no larger than 5,500 square feet, and 33-feet tall), however, the sanctuary would be located adjacent to Temescal Creek. This alternative results in the sanctuary being in close proximity to both the creek and the property line of 5940 Thornhill Drive. This alternative would necessitate the demolition of the single-family home located at 5928 Thornhill Drive. Because the sanctuary would be located in close proximity to Thornhill Drive when compared to the proposed project, this alternative would result in a change in character for that portion of the project site. The height and location of the sanctuary would result in building site coverage occurring

over a larger area, as opposed to concentrating the buildings in one area and maintaining a more expansive open view throughout the site. Similar to the project, this alternative would propose alterations to the project site that would be consistent with the purposes and intent of the City's design review criteria. Views into and across the project site would be impacted as the sanctuary in this alternative would be in the location of the parking area of the proposed project.

This alternative would result in the removal of 81 trees to accommodate the re-located sanctuary. Although no trees would be removed along Thornhill Drive, this alternative includes the removal of trees BD, BI, F, and H, which are located between the sanctuary and the adjacent residence located at 5940 Thornhill Drive. These trees would be preserved as part of the proposed project. With the removal of these trees, the sanctuary would be more visible to local residents.

Similar to the proposed project, this alternative would not cast shadows that would impair the function of facilities that use passive solar heat collection, solar collectors, hot water heating or photovoltaic solar collectors. In addition, any shadow cast by the sanctuary would not impair the beneficial use of any public or quasi-public park, lawn, garden, or open space. Under this alternative, no bridge is proposed. As such, shadows cast by the bridge would not occur under this alternative, and shadow patterns along the creek would not be affected.

This alternative would introduce additional light and glare to the area adjacent to the sanctuary. Under the proposed project, this area would be used for parking and vehicle circulation. The sanctuary under this alternative would increase the level of light and glare will as a result of exterior and internal lighting of the sanctuary. Similar to the proposed project, the additional light and glare from the sanctuary would not result in a significant impact. However, because this light and glare would be of greater intensity under this alternative, adjacent properties could be affected. The combination

of removing trees and the addition of increased light and glare would result in greater impacts to visual resources when compared to the proposed project.

b. Biological Resources

Under this alternative, vehicle access to the site would be located along Gouldin Road and would not require the construction of a bridge spanning Temescal Creek.

The proposed project includes the protection of 90 trees and the removal of 65 trees due to construction and maintaining the overall health of vegetation within the project site. This alternative would preserve 74 trees and would require the removal of 81 trees due to direct development impacts (construction of sanctuary, driveway, parking area, etc.), resulting in a significant but mitigatable impact to biological resources. Of the 81 trees to be removed, 73 are protected by the City of Oakland Protected Tree Ordinance.

Due to proximity of construction and location of project components, this alternative would require the removal of several prominent trees that would otherwise be preserved under the proposed project. Included among the trees to be removed (but preserved by the Project) are three coast redwoods with trunk diameters of 36 inches (Tree BD), 56 inches (Tree X) and 61 inches (Tree H). These trees are shown on Figure 5-5. Because this alternative would remove more trees than would be required as part of the proposed project, and no creek stabilization component would be included, this alternative would result in greater impacts to biological resources relating to trees. However, this alternative avoids potential impacts to the California red-legged frog, use of mechanized equipment in the creek channel, and permanent loss of riparian habitat (albeit marginal), which are reduced to less-than-significant levels under the proposed project. On balance, this alternative has fewer biological impacts than the project.

c. Hydrology and Water Quality

Due to the location of the sanctuary under this alternative, vehicle access to the site would be substantially different when compared to the proposed pro-

ject, resulting in 0.6 acres of impervious surface.¹³ Parking spaces would be constructed with gravel and would serve as stormwater treatment areas before water enters Temescal Creek. The proposed project would result in stormwater runoff of 3.3 cubic feet per second (CFS). This alternative would result in stormwater runoff of 3.97 (CFS), which would be more than the proposed project but would result in a less-than-significant impact.

Because this alternative does not propose a bridge over Temescal Creek, no modifications to the creek banks would be made. A limited area adjacent to the creek would be graded for construction of the proposed sanctuary, but the building would be over 35 feet from the top of the bank.

Compared to the proposed project, this alternative would have similar impacts on Temescal Creek, as it would not discharge a substantial amount of pollutants into Temescal Creek, nor would it deposit a substantial amount of new material into the creek or cause substantial bank erosion or instability.

Overall, this alternative would have less hydrological impacts when compared to the proposed project because it does not disturb the creek.

d. Land Use

This alternative would result in the construction of a sanctuary similar in size to the proposed project, but in a different area of the project site. Vehicles would have access to the site through a two-lane, ingress and egress driveway from Gouldin Road and a one-way egress driveway to Alhambra Lane.

Due to site constraints, this alternative would locate the sanctuary within 20 feet of the property line between the project site and 5940 Thornhill Drive. Although the location of the sanctuary does not result in a fundamental conflict with adjacent uses, the location will result in parishioners converging in an area of the project site that would otherwise be used for parking. The

¹³ Rothman, Rebecca. Project Engineer, Sandis Engineering. Personal conversation with DC&E, October 29, 2008.

noise associated with the presence of parishioners could result in an annoyance to neighbors as church services and meetings are held within sanctuary.

The land use of this alternative would differ from the proposed project by not grouping the sanctuary with the existing hall. Instead, the sanctuary would be located adjacent to Temescal Creek and 5940 Thornhill Drive. By locating the sanctuary adjacent to the creek, this alternative would not provide a connection or an outdoor, informal meeting area between the two structures.

When compared to the proposed project, this alternative would result in greater impacts to land use.

e. Traffic and Circulation

Although similar to the Existing Gouldin Road Access alternative described above in D.1), this alternative would attempt to achieve the Project's objective by not utilizing Alhambra Lane, this alternative would route all ingress traffic and most egress traffic through Gouldin Road by constructing a driveway with two lanes of traffic. Currently, slope of the access road is 23 percent with very limited sight lines due to the slope and the curve of the driveway.

In order to allow emergency vehicle access, this alternative would require regrading of the area adjacent to the existing Gouldin Road ingress in order to reduce the grade from 23 percent to 18 percent.¹⁴ The design of the re-graded driveway would involve extensive disturbance to the frontage and would result in 82 cubic yards of cut to allow for the proper grade and required 20-foot width.¹⁵ The construction of the two-way driveway would require the construction of a retaining wall adjacent to the property line. Development restrictions associated with the City of Oakland public conduit easement located within the project site, and adjacent to Gouldin Road, prohibits the

¹⁴ City of Oakland Fire Prevention Bureau. Fire Apparatus Access Standards, Design Requirements for Local Streets and Shared Access Facilities.

¹⁵ City of Oakland Fire Prevention Bureau. Fire Apparatus Access Standards. Illustration Adapted from 2007 California Fire Code- Appendix D 103.1.

construction of retaining walls over the easement, which may render this alternative infeasible. Additionally, the existing meditation garden adjacent to the existing church hall would be removed.

Pedestrian access, in compliance with the American with Disabilities Act (ADA), cannot be achieved under this alternative. In order for an ADA compliant ramp to be constructed from Gouldin Road, a series of switch-backs, landing areas and retaining walls would be required. Two conceptual designs for ADA access from Gouldin Road are shown on Figures 5-2 and 5-3. Although these figures depict the One-Way/No Bridge Alternative, they also show that retaining walls would be required for the construction of ADA accessible facilities into the project site. Similar to the retaining wall required for construction of the two-way driveway, development restrictions associated with the City of Oakland public conduit easement located within the project site, and adjacent to Gouldin Road, prohibits the construction of retaining walls over the easement. Because retaining walls would be required over the conduit easement, ADA access cannot be achieved.¹⁶

No improvements can be made to decrease the slope or width of the egress point on Alhambra Lane. All vehicles exiting through the Alhambra driveway would be subject to the existing substandard visibility at the intersection of Alhambra Lane and Thornhill Drive.¹⁷

The Alhambra Lane/Thornhill Drive intersection is a T-intersection, limiting vehicular movements to left and right turns from Alhambra Lane onto Thornhill Drive. Most vehicles when waiting for a gap in traffic to allow for turning onto Thornhill Drive would block the crosswalk. Sight distance to the south is limited to 145 feet and sight distance to the north is 77 feet.¹⁸

¹⁶ This determination was made in consultation with Sandis Engineers. Figures 5-2 and 5-3 were developed based on this consultation.

¹⁷ Dowling Associates, Addendum to the Supplemental Transportation and Parking Study for the Renovation at St. John's Episcopal Church, September 23, 2008.

¹⁸ Dowling Associates, Addendum to the Supplemental Transportation and Parking Study for the Renovation at St. John's Episcopal Church, September 23, 2008.

According to the Highway Design Manual, corner sight distance should be 275 feet in each direction at this unsignalized intersection. Because a portion of church traffic would utilize this intersection after exiting the project site, this impact would be considered significant due to the limited sight distance. To mitigate the limited site distance from intersection of Alhambra Lane and Thornhill Drive, the Church could work with the City to develop a plan that includes signage, foliage trimming, and restriction of on-street parking to increase visibility of the crosswalk and vehicles on Thornhill Drive.

The existing substandard condition at the Alhambra Lane/Thornhill intersection would remain. The Alhambra Lane/Thornhill Drive intersection is a T-intersection, limiting vehicular movements to left and right turns from Alhambra Lane onto Thornhill Drive. Most vehicles when waiting for a gap in traffic to allow for turning onto Thornhill Drive would block the crosswalk across Alhambra Lane. Sight distance to the south is limited to 145 feet and sight distance to the north is 77 feet.¹⁹ According to the Highway Design Manual, corner sight distance should be 275 feet in each direction at this unsignalized intersection. Thus, the corner sight distance at this intersection is sub-standard. However, without the proposed project, the applicant could perform foliage trimming on its property and request parking restrictions.

Parking spaces would be reduced from 41 under the proposed project to 32 stalls under this alternative, due to the re-location of the proposed sanctuary. The loss of 9 parking spaces would result in vehicles parking in the adjacent neighborhood. Standard Conditions of Approval, including a parking plan, and the coordinated use of local parking areas, including Thornhill School, and a valet system would be required to alleviate parking demand on during Sunday services. An area that currently contains five informal parking spaces adjacent to the existing St. John's hall was not considered for vehicle access under this alternative because limited area was available for turnaround. Ad-

¹⁹ Dowling Associates, Addendum to the Supplemental Transportation and Parking Study for the Renovation at St. John's Episcopal Church, September 23, 2008.

ditionally, vehicle access to this area would require the removal of four parking spaces.

Based on constrained emergency vehicle access and parking space reduction, this alternative would result in greater (albeit still less-than-significant) transportation-related impacts when compared to the proposed project.

D. Alternatives Considered Infeasible and Not Further Studied in Detail

In addition to the Alternatives listed above, several other project alternatives were considered, but each was determined to be infeasible and not further studied in detail.

1. Alternate Alhambra Court / Alhambra Lane Access (No Bridge)

Construction of the bridge access over Temescal Creek would not occur. The Gouldin Road access driveway would be rehabilitated. An egress would be constructed to allow vehicles to exit the project site through Alhambra Court, between 5914 Thornhill Drive and 1676 Alhambra Lane, utilizing Alhambra Lane via Alhambra Court. The construction of the sanctuary would be located at an alternate location within the project site.

Alhambra Court is a private street that would require an access easement agreed upon by property owners with access to the court. The adjoining property owners have stated that they would not grant such access, and thus, this alternative is infeasible.²⁰ Furthermore, this alternative would not offer any advantages to circulation, and could potentially reduce the amount of parking available within the project site.

2. Alternate Gouldin Road Access (No Bridge)

In this alternative a new ingress road from Gouldin Road would be constructed on the project site between the existing sanctuary and 1675 Gouldin

²⁰ St. John's Church contacted owners of residences located on Alhambra Lane in December, 2008.

Road. The Alhambra Lane egress would be rehabilitated to accommodate vehicle traffic, similar to the project. This alternative would allow for the new sanctuary to be constructed in the proposed location. No bridge would be constructed as a component of this alternative. This alternative is shown in Figure 5-6.

The City of Oakland requires that new access roads must be a minimum of 26 feet wide and have a maximum slope of 18 percent to allow for emergency vehicle access.²¹ There is not adequate space between the existing St. John's hall and the 1675 property line to provide for a 26-foot road. A road with a 12-foot width could be constructed in that location that would require the construction of two retaining walls on either side of the road to account for the steep slope. However, an existing City of Oakland public conduit easement runs the length of the project site parallel to Gouldin Road and directly under the proposed location for the ingress road of this alternative. This easement prevents the construction of structures or retaining walls over the conduit.

Due to the physical limitations of the existing St. John's hall and the 1675 Gouldin Road property, as well as the existing City of Oakland public conduit easement, this alternative is considered infeasible.

3. Alternative Bridge Location Alternative

In this alternative, the bridge location would be shifted to the southeast along Thornhill Drive. The location of the bridge, as proposed by the Project, was determined by finding a location that limited impacts and proximity to existing vegetation within the project site. This alternative is considered infeasible because an alternative location for the bridge has the potential to impact a greater number of existing trees.

²¹ City of Oakland Fire Prevention Bureau. Fire Apparatus Access Standards. Illustration Adapted from 2007 California Fire Code- Appendix D 103.1..

4. Alteration of Existing Church Hall

In this alternative, the existing church hall would be renovated to accommodate parishioners in one building. This alternative would not include a bridge, and the internal traffic circulation would be similar to the Alternative 3 and would include a two-way ingress/egress driveway connecting the project site with Gouldin Road. This alternative was not considered because it would not satisfy basic project objectives as listed in Chapter 3, Section E., of the Project Description. This alternative would not result in a new sanctuary, would result in additional vehicle use of Gouldin Road, would not improve the natural habitat by replacing non-native existing trees and shrubbery with native species of trees and shrubbery, and would not improve ADA access.

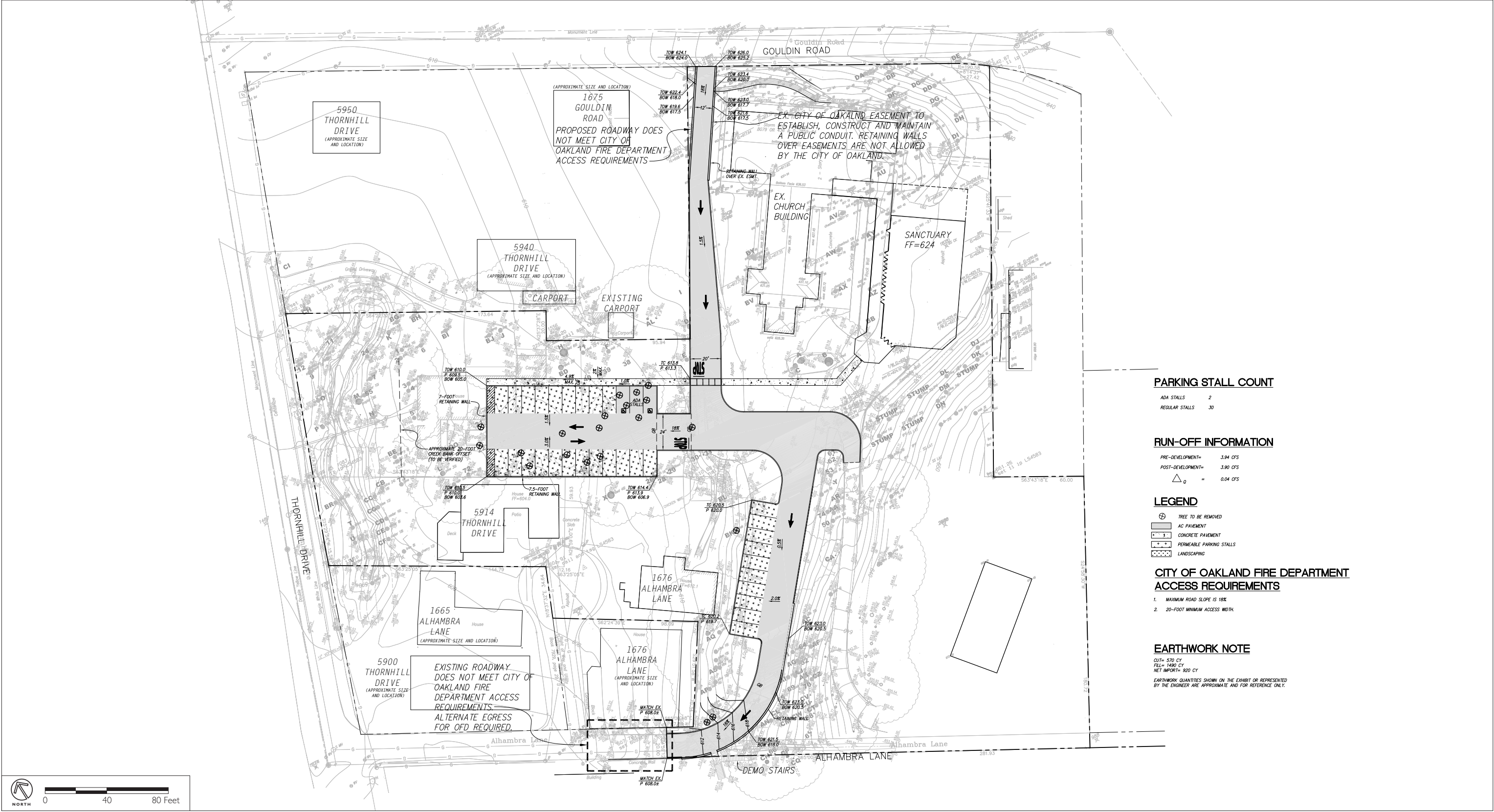
5. Off-Site Alternative

The Church has been operating at its current location since April 1952. An objective to constructing a new sanctuary within the proposed project site is to create connectivity with existing church facilities, and continue to serve local parishioners in the Montclair Neighborhood. Moreover, the Church does not control other property. Therefore, an off-site alternative is infeasible.

E. Environmentally Superior Alternative

CEQA requires the identification of the environmentally superior alternative in an EIR. If the alternative with the least environmental impact is the No Project Alternative, then the EIR must also designate the next most environmentally superior alternative.

Based upon the foregoing analysis, the No Project Alternative is the Environmentally Superior Alternative, while Alternative 2 is the Environmentally Superior Development Alternative. The proposed project includes construction of a bridge over Temescal Creek, which is typically not allowed under the Guide to Oakland's Creek Protection Ordinance. Although the proposed project results in significant impacts to biology, such impacts can be reduced to less-than-significant levels through the City's Standard Conditions



Source: Sandis Engineers

FIGURE 5-6
ALTERNATE GOULDIN ROAD ACCESS

of Approval and proposed mitigation measures. Moreover, the project does provide for improvement of currently substandard ingress/egress, as well as improved ADA access. Notwithstanding, Alternative 2 is the Environmentally Superior Development Alternative because there are no impacts to the creek and no worsening of existing substandard traffic conditions (although there would be slightly more individuals exposed to the substandard conditions as a result of the project). Alternative 2 is marginally environmentally superior to Alternative 3 because there is slightly less grading and cut/fill involved and it does not require a retaining wall along the edges of the roadway. Essentially, there is a trade-off of potentially significant creek impacts (which can be reduced to less-than-significant levels) against improved ingress/egress and ADA access. This EIR concludes that the potential impacts to the creek associated with the proposed project are more of an environmental concern than other factors associated with Alternative 2. Thus, Alternative 2 is the Environmentally Superior Development Alternative.

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ALTERNATIVES TO THE PROPOSED PROJECT

6 CEQA-REQUIRED ASSESSMENT CONCLUSIONS

As required by CEQA, this chapter provides an assessment of the project with respect to growth inducement, significant irreversible changes, unavoidable significant impacts, and impacts found not to be significant.

A. Growth Inducement

A project is considered to be growth-inducing if it fosters economic or population growth beyond the boundaries of the project site. Typical growth inducements might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major boundaries to development.

The site already contains the existing St. John's Church and includes several single-family dwelling units on adjacent parcels. The project site is surrounded by residential development, and is currently served by public infrastructure and utilities. No extension of services would be necessary, however upgrading of existing infrastructure and services will be required. Because the project site is located in an area of existing residential development the project would not remove a major obstacle to development.

The project proposes the construction of a bridge over Temescal creek to provide primary site ingress and egress. Construction of the bridge would provide emergency access to the site and enable the construction of the new sanctuary to be located adjacent to the existing St. John's hall. Because of site constraints, including topography, property lines and biological resources, the project applicant believes construction and operation of the bridge as a component of the project would be necessary to achieve project objectives. As these objectives are unique to the Church, it is not expected that changes in policy would result in growth inducing impacts related to bridge construction.

Overall, the proposed project would not be expected to induce growth beyond the limits of the project site or set a precedent for additional growth in the area.

B. Significant Irreversible Changes

CEQA requires that an EIR assess whether a project will result in significant irreversible changes to the environment. The CEQA Guidelines describe three distinct categories of irreversible changes that should be considered:

1. Changes in Land Use which Commit Future Generations

The proposed project would commit future generations to development on the proposed project site. Once the proposed project is developed it is unlikely to be economically feasible or desirable to change to a significantly different land use for several decades or to return the site to its current, underutilized state. However, this is not considered to be an adverse impact, since the site is already developed.

2. Irreversible Damage from Environmental Accidents

Since the project would not involve the routine use or transport of hazardous materials in substantial quantities, no significant environmental damage, such as the accidental spill or explosion of hazardous material, is anticipated as a result of the proposed project.

3. Consumption of Natural Resources

The assessment of a proposed project's consumption of nonrenewable resources includes increased energy consumption, conservation of agricultural lands, and loss of access to mining reserves.

Development of the project site would irretrievably commit nonrenewable resources to the construction and maintenance of proposed buildings and internal driveways. The building materials and energy consumed as part of development of the project would include, but are not limited to, nonrenewable and limited resources such as oil, gasoline, lumber, sand and gravel, asphalt, water, and steel. Increased energy demands would be used for construction, lighting, heating and cooling, and transportation of people within, to, and from the area. This represents an irreversible commitment of nonrenewable resources.

The property is not on agricultural land, nor does it provide access to a mining reserve. Therefore, the proposed project would not have significant impacts on the consumption of these types of resources.

C. Unavoidable Significant Impacts

Unavoidable significant impacts are those significant impacts that cannot be mitigated to a less-than-significant level. As described in Chapter 4, all of the potential impacts from the proposed project are either less than significant, or could be mitigated to less than significant levels by the implementation of Standard Conditions of Approval and/or mitigation measures.

D. Impacts Found Not to Be Significant

CEQA allows environmental issues for which there is no likelihood of an impact to be “scoped out” during the EIR scoping process and not covered in an EIR. A NOP/IS was prepared which detailed why certain topics were not further analyzed in this EIR (see Appendix B).

E. Cumulative Impacts

CEQA Guidelines require consideration of the potential cumulative impacts that could result from a proposed project in conjunction with other past, present, existing, approved, pending and reasonably foreseeable future projects in the vicinity. Such impacts can occur when two or more individual effects either together create a considerable environmental impact or compound other environmental consequences. A discussion of potential cumulative impacts for each topic area is included in Chapters 4.1 through 4.4. No cumulative impacts have been identified.

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CEQA-REQUIRED ASSESSMENT CONCLUSIONS

7 REPORT PREPARATION

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REPORT PREPARATION

8 REFERENCES

This chapter lists all referenced material including underlying technical studies, and personal communications used to when preparing this EIR.

The following is a complete list of the reports prepared for this project.

1. Biological Resource Conditions, St. John's Church Site, Oakland, CA. Environmental Collaborative, May 28, 2010.
2. Tree Report, St. John's Episcopal Church, Oakland, CA. HortScience, March 2009.
3. Bridge Design Review: St. Johns Episcopal Church, Oakland, CA. Kamman Hydrology & Engineering, Inc., June 28, 2007.
4. Hydrology Report. Kamman Hydrology & Engineering, Inc., Revised May 3, 2010.
5. Peer Review Comments for Kamman Hydrology Report Revised May 3, 2010 and received May 14, 2010, St. Johns Church, Oakland, CA. FarWest Restoration Engineering, May 18, 2010.
6. Geotechnical Investigation, St. John's Episcopal Church, Entry Road, Bridge Parking and New Sanctuary, Oakland, CA. Land/Marine Geotechnics, May 2005.
7. Traffic Study – Renovation at St Johns Episcopal Church, Oakland. Dowling Associates, Inc., April 9, 2007.
8. Supplemental Transportation and Parking Study for the Renovation at St. John's Episcopal Church, Oakland. Dowling Associates, Inc., July 15, 2008.
9. Addendum to the Supplemental Transportation and Parking Study for the Renovation at St John's Episcopal Church, Oakland. Dowling Associates, Inc., September 23, 2008.
10. Intersection Level of Service and Peak-Hour Warrants Calculation Sheets. Dowling Associates, Inc., September 8, 2010.

The following is a list of the underlying material referenced in this EIR.

Chapter 4.1 – Aesthetics

Publications

City of Oakland General Plan, Scenic Highways Element, page 1.

HortScience, Inc., Tree Report, March 2009, Table 3, pages 8-9 and Tree Preservation Plan, as prepared by PGA Design.

Websites

California Department of Transportation. Officially Designated State Scenic Highways. http://www.dot.ca.gov/hq/LandArch/scenic_highways/. Accessed on June 5, 2008.

Personal Communications

Quitevis, Caesar. Personal communication with DC&E, July 15, 2008

Chapter 4.2 – Biological Resources

Publications

HortScience, 2009, *Tree Report, St. John's Episcopal Church, Oakland, CA*, March 2009.

Chapter 4.3 – Hydrology and Water Quality

Publications

Department of Water Resources, California's Groundwater Bulletin 118. Last Update, February 27, 2004.

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Land/Marine Geotechnics, Geotechnical Investigation, St. John's Episcopal Church, Entry Road, Bridge, Parking and New Sanctuary. May 2005.

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City of Oakland, http://www.oaklandnet.com/government/info/city_regs.html, accessed on July 14, 2008.

Personal Communications

Quitevis, Caesar. Personal communication with DC&E, July 15, 2008.

Chapter 4.4 – Traffic and Circulation

Publications

Highway Design Manual. California Department of Transportation. Chapter 200 – Geometric Design and Structure Standards, January 4, 2007, Table 201.1 – Sight Distance Standards for stopping distance extrapolated from the 20 mile per hour design speed.

San Franciscans Upholding the Downtown Plan v. the City and County of San Francisco (2002) 102 Cal.App.4th 656.

Dowling Associates, Inc., Traffic Study – Renovation at St. John's Episcopal Church, April 9, 2007, page 1.

City of Oakland, Municipal Code. Passed February 5, 2008. Code 17.116.070 Off-Street Parking – Civic Activities.

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Technical Bulletin: Parking. United States Access Board. Washington, DC.

California Building Code 1129B – Accessible Parking.

Dowling Associates, Inc., Traffic Study – Renovation at St. John's Episcopal Church, April 9, 2007, page 4.

Dowling Associates, Inc., Addendum to Supplemental Transportation Study for St. John's Church Renovation Memorandum, September 23, 2008, page 8.

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Chapter 5 – Alternatives

Publications

CEQA Guidelines, Section 15126.6.

HortScience, Tree Report, March 6, 2009, Table 3, page 8.

Kamman Hydrology & Engineering, Inc., Hydrology Report, May 26, 2010, Table 5, page 8.

Dowling Associates, Addendum to the Supplemental Transportation and Parking Study for the Renovation at St. John's Episcopal Church, September 23, 2008.

City of Oakland Fire Prevention Bureau. Fire Apparatus Access Standards, Design Requirements for Local Streets and Shared Access Facilities.

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Dowling Associates, Addendum to the Supplemental Transportation and Parking Study for the Renovation at St. John's Episcopal Church, September 23, 2008.

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