RESOLUTION NO. 2010-27

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE ADOPTING A MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM (MMRP) FOR THE NEW PARISH CATHOLIC CHURCH PROJECT NO. EG-09-028, ASSESSOR PARCEL NUMBER 121-0220-008

WHEREAS, Comstock Johnson Architects (hereinafter referred to as Applicant) filed an application with the City of Elk Grove (hereinafter referred to as City) for a Design Review and Conditional Use Permit for the New Parish Catholic Church, Project No. EG-07-100 (the Project); and

WHEREAS, the proposed Project is located on real property in the incorporated portions of the City of Elk Grove more particularly described by Assessor Parcel Number 121-0220-008; and

WHEREAS, the City determined that the Project was subject to the California Environmental Quality Act (CEQA) and prepared an Initial Study pursuant to CEQA, attached hereto as Exhibit A and incorporated herein by reference, evaluating the potential environmental effects of the project; and

WHEREAS, the City determined that the mitigation measures identified in the Initial Study / Mitigated Negative Declaration would reduce environmental impacts to a less than significant level; and

WHEREAS, a Mitigation Monitoring and Reporting Program (MMRP) has been prepared in accordance with CEQA, attached hereto as Exhibit B and incorporated herein by reference, which is designed to ensure compliance with the identified mitigation measures during project implementation and operation; and

WHEREAS, the City distributed the Notice of Intent to Adopt the Mitigated Negative Declaration on April 10, 2009, and the Notice was published in the *Elk Grove Citizen*, posted at the Sacramento County Clerk's Office, distributed through the State Clearinghouse and posted at the City offices, pursuant to CEQA Guidelines 15072. A 30 day review and comment period for the Mitigated Negative Declaration opened on April 10, 2009 and closed May 11, 2009. The Mitigated Negative Declaration was made available to the public during this review period; and

WHEREAS, the City received written comment letters within the 30 day public review period and responded to those comments in the project staff report; and

WHEREAS, the City has considered the comments received during the public review period, and they do not alter the conclusions in the Initial Study and Mitigated Negative Declaration; and

WHEREAS, the City Council has considered the written and oral comments on the proposed Project and the Mitigated Negative Declaration; and

WHEREAS, the City of Elk Grove, Development Services Planning Department, located 8401 Laguna Palms Way, Elk Grove, California 95758 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to adopt the Mitigated Negative Declaration is based; and

WHEREAS, the City Council of the City of Elk Grove has reviewed the Initial Study, the Mitigation Negative Declaration, and the Mitigation Monitoring and Reporting Program and find that these documents reflect their independent judgment.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby adopts the Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program for the New Parish Catholic Church based on the following findings:

1) On the basis of the whole record, there is no substantial evidence that the Project as designed, conditioned and mitigated, will have a significant effect on the environment. A Mitigated Negative Declaration has been prepared and completed in accordance with the California Environmental Quality Act (CEQA). The Mitigated Negative Declaration reflects the independent judgment and analysis of the City.

2) Pursuant to Public Resources Code Section 21081 and CEQA Guidelines Section 15091, all of the proposed mitigation measures described in the Mitigated Negative Declaration are feasible, and therefore will become binding upon the City and affected landowners and their assigns or successors in interest when the Project is approved.

3) To the extent that these findings conclude that various proposed mitigation measures outlined in the MND are feasible and have not been modified, superseded or withdrawn, the City Council hereby binds itself, all landowners within the Project area, and their assigns and successors in interest to implement those measures. These findings are not merely informational but constitute a binding set of obligations that will come into effect when the City Council issues the Project entitlements set forth above. The actual implementation of the mitigation measures hereby adopted shall occur by having them included as conditions of approval on subsequent discretionary entitlements granted within the Project area.

Evidence: Pursuant to CEQA and the CEQA guidelines, City staff prepared an initial study evaluating the potential environmental effects of the Project. The Initial Study identified potentially significant adverse effects in the areas of aesthetics, biological resources, cultural resources, geology and soils, hazardous materials, hydrology and water quality, traffic and transportation, and utilities and service systems.

Mitigation measures that avoid or mitigate the potentially significant effects to a point where no significant effects would occur were identified in the Initial Study and a Mitigated Negative Declaration was prepared. The Initial Study / Mitigated Negative Declaration was distributed for a 30 day review and comment period between April 10, 2009 and May 11, 2009. The City received written comment letters within the 30 day public review period and responded to those comments in the project staff report. The City has considered the comments received during the public review period, and they do not alter the conclusions in the Initial Study and Mitigated Negative Declaration. A Mitigation Monitoring and Reporting Program (MMRP), which is incorporated herein by this reference has been prepared to ensure compliance during project implementation. A condition of approval has been imposed on the project that requires conformance with the MMRP. The City of Elk Grove, Development Services Planning Department, located 8401 Laguna Palms Way, Elk Grove, California 95758 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to adopt the Negative Declaration is based.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 27th day of January 2010.

SOPHIA SCHERMAN, MAYOR of the
CITY OF ELK GROVE

ATTEST:

SUSAN J. BLACKSTON, CITY CLERK

APPROVED AS TO FORM:

SUSAN COCHRAN, CITY ATTORNEY

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Project Title:	New Parish Catholic Church Project~~/ St. Maria Goretti Parish~~
Lead Agency Name and Address:	City of Elk Grove Development Services - Planning 8401 Laguna Palms Way Elk Grove, CA 95758
Project Location:	8800 Bradshaw Road APN: 121-0220-008
Project Sponsor's Name and Address:	Property Owners: ~~Roman Catholic Diocese of Sacramento~~ ~~Thomas J. McNamara, CEO~~ ~~2110 Broadway~~ ~~Sacramento, CA 95818~~ Robert M. Saini c/o Alice Tidwell PO Box 310 Oroville, CA 95965 Agent: Comstock Johnson Architects, Inc. Duane Johnson 10520 Armstrong Avenue Mather, CA 95655
General Plan Designation(s):	Rural Residential (0.1 to 0.5 dwelling units/acre)
Zoning:	Agricultural-Residential – 5 acre minimum (AR-5)
Contact Person:	Sarah Kirchgessner
Phone Number:	(916) 478-2218
Date Prepared	April 2009

PROJECT DESCRIPTION

PROJECT LOCATION AND SURROUNDING LAND USES

The project site is a 17.32-acre parcel located on the ~~eastern~~ western side of Bradshaw Road at 8800 Bradshaw Road, approximately 200 yards north of Sheldon Road (see **Figure 1**). The General Plan land use designation for the project site is Rural Residential and the zoning is AR-5 (Agricultural-Residential – 5 acre minimum). Land surrounding the project site on all sides is also zoned AR-5. Bradshaw Road borders the project site on the east. The property is relatively flat and contains a 1,500 square foot, single-family home that is currently vacant, as well as a detached garage (600 square feet), several small sheds (totaling less than 800 square feet), and a small orchard. There is also one existing well onsite. The area surrounding the site is developed with rural residential uses (**Figure 2**).

Proposed Project

The proposed project includes a Conditional Use Permit (CUP) and design review permit to allow construction of a new church, school and offices as shown in the site plan in **Figure 3**. The purpose of a CUP is to allow for the individual review of uses that are authorized by the General Plan, but might have project-specific site development features or operating characteristics that need to be evaluated to ensure compatibility with surrounding areas and uses. The CUP process allows the City the opportunity of an individualized review of the project to ensure compatibility with surrounding areas and uses. Title 23, Article III, Chapter 23.28 of the City Code conditionally allows religious institutional and private school uses within the AR-5 zone subject to the granting of a CUP. (See Table 23.28-1.) The City's Planning Commission has discretion to approve, conditionally approve, or deny the CUP application. (Elk Grove Zoning Code § 23.16.070). The design review permit process allows the City to review the proposed design of the project to ensure, among other things, orderly and harmonious growth in the City, development consistent with the character of the City, and the physical, visual, and functional compatibility between uses. As with the CUP, the City Planning Commission has discretion to approve, conditionally approve, or deny the design review permit application. (Elk Grove Zoning Code § 23.16.080).

The proposed project would be constructed in four phases. Phase 1A would include a 600-seat church, office space, and meeting rooms within a multi-purpose building of approximately 16,100 square feet located in the north central portion of the project site. Phase 1A would also include a plaza to the south of the church and 244 parking spaces located along the southern portion of the site to accommodate the parking needs of Phase 1 including Christmas and Easter services. The existing residence on the site (approximately 1,500 sf), as well as the garage (approximately 600 sf) and sheds (under 800 total sf), will be demolished as part of Phase 1A.

Phase 1B would include construction of a 4-bedroom, approximately 3,500 square foot rectory to be used as a residence for Parish priest(s) in the southeast corner of the site. Phase 2 would include the construction of a single-story K-8 school with two classroom buildings and one administrative office building totaling 23,000 square feet to the west of the plaza (discussed in further detail below).

Phase 3 would include construction of a 960-seat church totaling approximately 22,000 square feet and expansion of the parking area by adding 112 spaces west of the parking area constructed as part of Phase 1. In Phase 3, the Phase 1 church would be converted to a multi-purpose facility for meeting and office space.

In addition to the proposed buildings and parking, the project would include the construction of groundwater, septic, and drainage infrastructure to serve the site. Specifically, the project

proposes to upgrade the existing groundwater well for fire protection purposes, drill a new domestic well, and construct a small potable water storage tank. The existing water well is located near the northwestern border of the project site. A new septic system would be constructed as the project would not be connecting to a municipal system. The onsite wastewater disposal system would include multiple tanks (8,000 to 16,000 gallon) which would either be pumped to, or gravity fed to, a disposal field located under the parking lot (Welch, 2009). The final design of the system has not been completed at the time this document was prepared. The project also includes an aboveground fire water storage tank as well as a pump house. These facilities would be located east of the playfield and north of the basketball courts on the northwestern portion of the site as part of Phase 1. No lighting or nighttime events are planned to occur in association with the playfields. Stormwater is proposed to be accommodated through construction of a 3-acre detention basin and bio-swales.

Roadway and frontage improvements that will be required are dependent on timing of permits and the level of surrounding roadway development. Ultimately, Bradshaw Road will be widened to 3 southbound lanes. Currently, Bradshaw Road has one southbound lane and the applicant would be required to construct one ingress/egress lane if permits are pulled under the current configuration. The applicant would also enter into a deferred improvement agreement that would require them to begin construction of the required roadway improvements concurrent with Phase-2 (K-8 school).

The proposed project would also include landscaped front- and side-yard setbacks to buffer church operations from surrounding rural residential uses. A 41-foot wide landscape corridor is proposed on the east side of the site adjacent to the west side of Bradshaw Road. The corridor would include a 15 to 16-foot wide roadside ditch, a 10-foot wide bike/pedestrian trail, and a 5-foot wide equestrian trail. The southern buffer area would include a 6-foot high pre-cast concrete plank fence set back 35 feet from the adjacent property line and 30 feet from the parking area, with landscaping leading up to the fence on both sides.

At full buildout, the project would include a 960-seat church and hold one mass on Saturday evenings from 5:00 to 6:00 p.m. and three masses on Sundays (8:00 a.m., 9:30 a.m. and noon), with additional masses during holidays such as Christmas and Easter. Occasional funeral services and weddings would also be held (approximately 3 funerals and 2 weddings a month). Funerals are generally held on weekdays between the hours of 10:00 a.m. and 2:00 p.m. for approximately one hour. Weddings are typically held on Saturdays during the afternoon. The parish office would be open Monday through Friday, 9:00 a.m. to 4:00 p.m. The project would employ approximately 14 people at buildout (i.e. one priest, one principal, one parish secretary, one school secretary, nine teachers, and one bookkeeper). The school would operate Monday through Friday, 8:00 a.m. to 3:00 p.m., approximately 171 days per year with no school in the summer.

School Siting Standards

Public Resources Code (PRC) Section 21151.8 (School sites and Hazardous Substances) identifies criteria for assessing public school sites. It specifies that an environmental impact report or negative declaration may not be approved without ensuring that prior or current use of hazardous materials, hazardous materials disposal, the presence of pipelines, or exposure to toxic air emissions have been thoroughly addressed and that any adverse impacts must be mitigated to less than significant levels. In addition, Section 15186, School Facilities, of the State CEQA Guidelines states that:

> *CEQA establishes a special requirement for certain school projects, as well as certain projects near schools, to ensure that potential health impacts resulting*

from exposure to hazardous materials, wastes, and substances will be carefully examined and disclosed in a negative declaration or EIR, and that the lead agency will consult with other agencies in this regard.

While the proposed K-8 school is a private facility and not part of a school district, adherence to the siting criteria for schools proposed by a school district was considered prudent. CEQA Guidelines Section 15186(c) which implements PRC Section 21151.8 provides that a negative declaration shall not be adopted unless:

(1) The negative declaration, or mitigated negative declaration, contains sufficient information to determine whether the property is:

(A) The site of a current or former hazardous waste or solid waste disposal facility, and if so, whether wastes have been removed.

(B) A hazardous substance release site identified by the Department of Toxic Substances Control in a current list adopted pursuant to Section 25356 of the Health and Safety code for removal or remedial action pursuant to Chapter 6.8 (commencing with section 25300) of division 20 of the Health and Safety Code.

(C) The site of one or more buried or above ground pipelines which carry hazardous substances, acutely hazardous materials, or hazardous wastes, as defined in Division 20 of the Health and Safety Code. This does not include a natural gas pipeline used only to supply the school or neighborhood.

(D) Within 500 feet of the edge of the closest traffic lane of a freeway or other busy traffic corridor.

and

(2) The lead agency has notified in writing and consulted with the county or city administering agency (as designated pursuant to Section 25502 of the Health and Safety Code) and with any air pollution control district or air quality management district having jurisdiction, to identify facilities within one-fourth mile of the proposed school site which might reasonably be anticipated to emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste. The notice shall include a list of the school sites for which information is sought. Each agency or district receiving notice shall provide the requested information and provide a written response to the lead agency within 30 days of receiving the notification. If any such agency or district fails to respond within that time, the negative declaration or EIR shall be conclusively presumed to comply with this section as to the area of responsibility of that agency.

A Phase I Environmental Assessment was prepared by Versar, Inc. in November 2005. The Phase I examined the site and disclosed findings relative to hazardous materials use and storage, waste disposal, Superfund Amendments and Reauthorization Act of 1984 (SARA), underground storage tanks (USTs), aboveground storage tanks (ASTs), discharges to water, air emissions, asbestos-containing materials, polychlorinated biphenyls (PCBs), lead in paint and drinking water, radon and methane gas. The Phase I analysis included a visual inspection of the site (October 21, 2005), a review of pertinent background and historical information, contact with

appropriate regulatory agencies, review of chemical and waste handling, storage and disposal practices, observation of land use on surrounding properties, review of regulatory database report and photographic documentation of the site.

According to the Phase I Environmental Assessment, hazardous wastes have not been generated at the site, nor is the site listed on any of the state or federal databases (Versar, page 4-2). The site does not contain a current or former hazardous or solid waste disposal facility. It does contain a residence, garage, several outbuildings, a small grain silo, a domestic well, an irrigation well and a small orchard (Versar, 2005, page 4-1). A septic system is located on the project site and serves the existing residence.

The Phase I report did not identify the site as being on a current list adopted pursuant to Section 25356 of the Health and Safety Code. The site, however, was previously farmed for wheat grass and hay and contains a small orchard. Therefore, pesticide residue may still exist in the soil in the form of organochlorine pesticides, such as DDT and hexachlorobenzene (Versar, 2005, page 6-2). In addition, copper and copper-based compounds were often applied to orchards. To fully determine the presence and degree of such residue, it is recommended that a soil screen survey be prepared (This is discussed in greater detail in Section VII, Hazards and Hazardous Materials of this document.) If any residue is detected that warrants remediation, appropriate action shall be taken to ensure that any pesticide residue in the soil is fully mitigated prior to site development.

The EDR Overview map included in Appendix D (EDR Radius Map with Geocheck Report) to the Phase I Environmental Assessment (which is included as **Appendix E** of this document) identifies various hazards within 1 mile of the project site. ~~No oil or gas pipelines are depicted to align through or in the vicinity of the project site.~~ Propane gas was formerly supplied to the residence by an onsite propane tank which is located on the north side of the residence, but is not active (Versar, 2005 page 3-1). In addition, the site does not contain National Priority List sites, landfill sites or Department of Defense sites.

The project site is bordered by Bradshaw Road on the east and is approximately 600 feet north of Sheldon Road. Neither of these roadways is subject to high volumes of traffic; both are considered rural roads which are subject to Rural Road Improvement Standards per the City of Elk Grove Rural Roadway Improvement Policy (City of Elk Grove, 2007). The Phase I Environmental Assessment notes that there are currently no air emission sources at the site that are regulated by federal, state, and/or local regulatory agencies. The Sacramento Metropolitan Air Quality Management District (SMAQMD) was contacted as part of the Phase I investigation to obtain information regarding permits, notices of violations, and an emission summary for the site. SMAQMD did not locate any information relative to this inquiry (Versar, 2005 page 4-3). However, an inquiry to SMAQMD in February 2009 (Jester, 2009, **Appendix A**) identified a permitted internal combustion engine used to power a standby generator for emergency power located at 9375 Calvine Road (Cingular Wireless). The engine is powered by propane and not diesel, and therefore is not considered a significant source of air toxics. A Jack in the Box restaurant and ARCO service station have been permitted to construct at Calvine and Bradshaw Roads. The presence of a service station could be a potential air toxics source. Lastly, SMAQMD identified vehicle emissions from Calvine and Bradshaw Roads as a potential source of toxics depending on the traffic volume. Currently, volumes along segments of these roads in the vicinity of the project site are not heavy (refer to discussion of Traffic and Transportation in Section XV of this document.)

Project Construction

Phase 1

Phase 1 construction could begin as early as the summer of 2009. Construction would occur Monday through Friday from 7:00 a.m. to 5:00 p.m. and take approximately one year for Phase 1A. Phase 1B construction would occur following completion of Phase 1 with the same hours of construction lasting approximately 12 weeks. Construction of Phase 2 could begin in approximately 2012 or 2014. Phase 3 construction is expected to begin in 2021 and be completed by 2024.

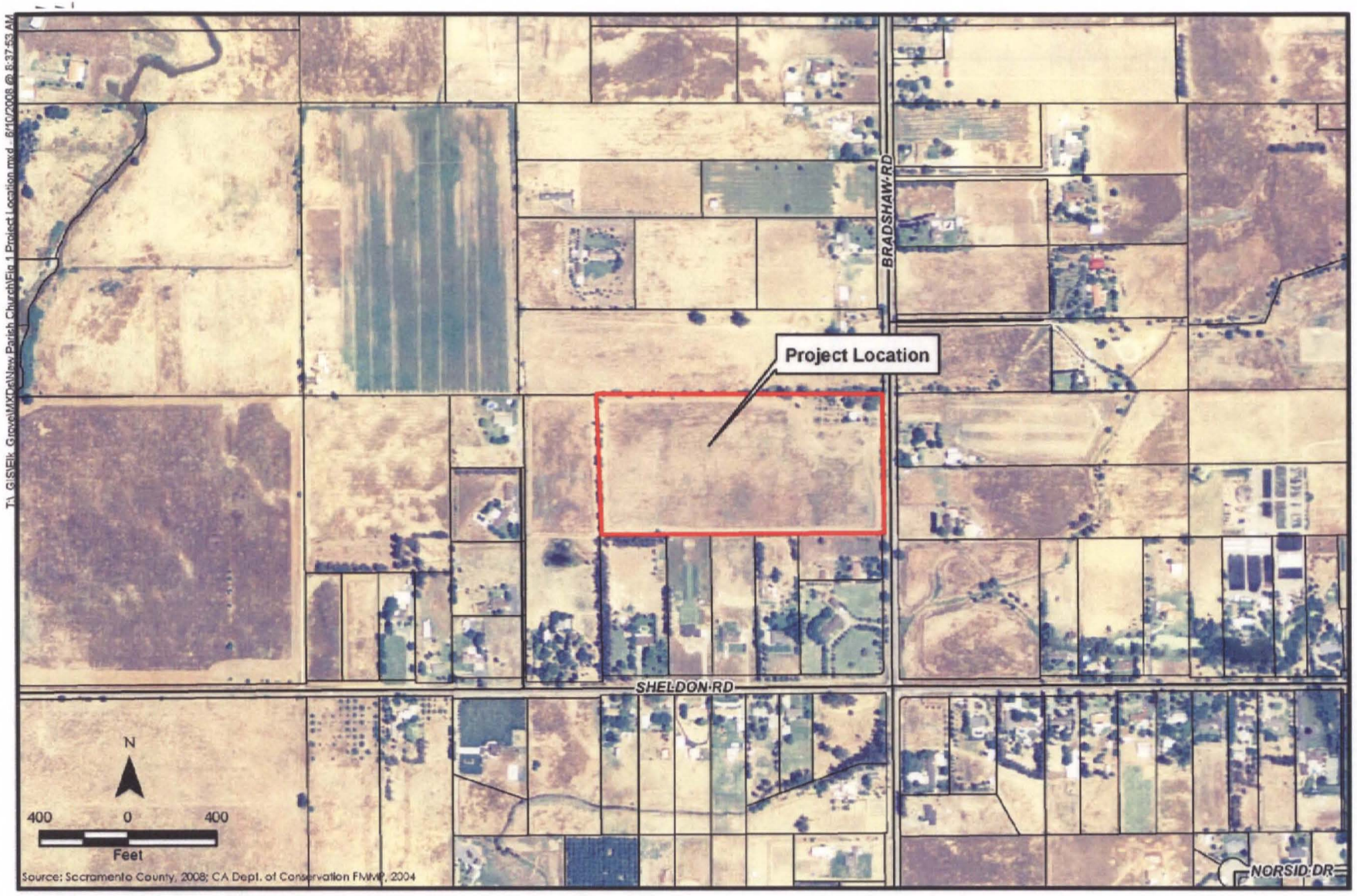
Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and corresponding discussion on the following pages.

☒ Aesthetics	☒ Agricultural Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Hazards & Hazardous Materials	☒ Hydrology/Water Quality	☒ Land Use/Planning
☐ Mineral Resources	☒ Noise	☐ Population/Housing
☒ Public Services	☒ Recreation	☒ Transportation/Traffic
☒ Utilities/Service Systems	☒ Mandatory Findings of Significance	

City of Elk Grove
Development Services

Figure 1
Project Location Map



City of Elk Grove
Development Services

Figure 2
Aerial of Project Site

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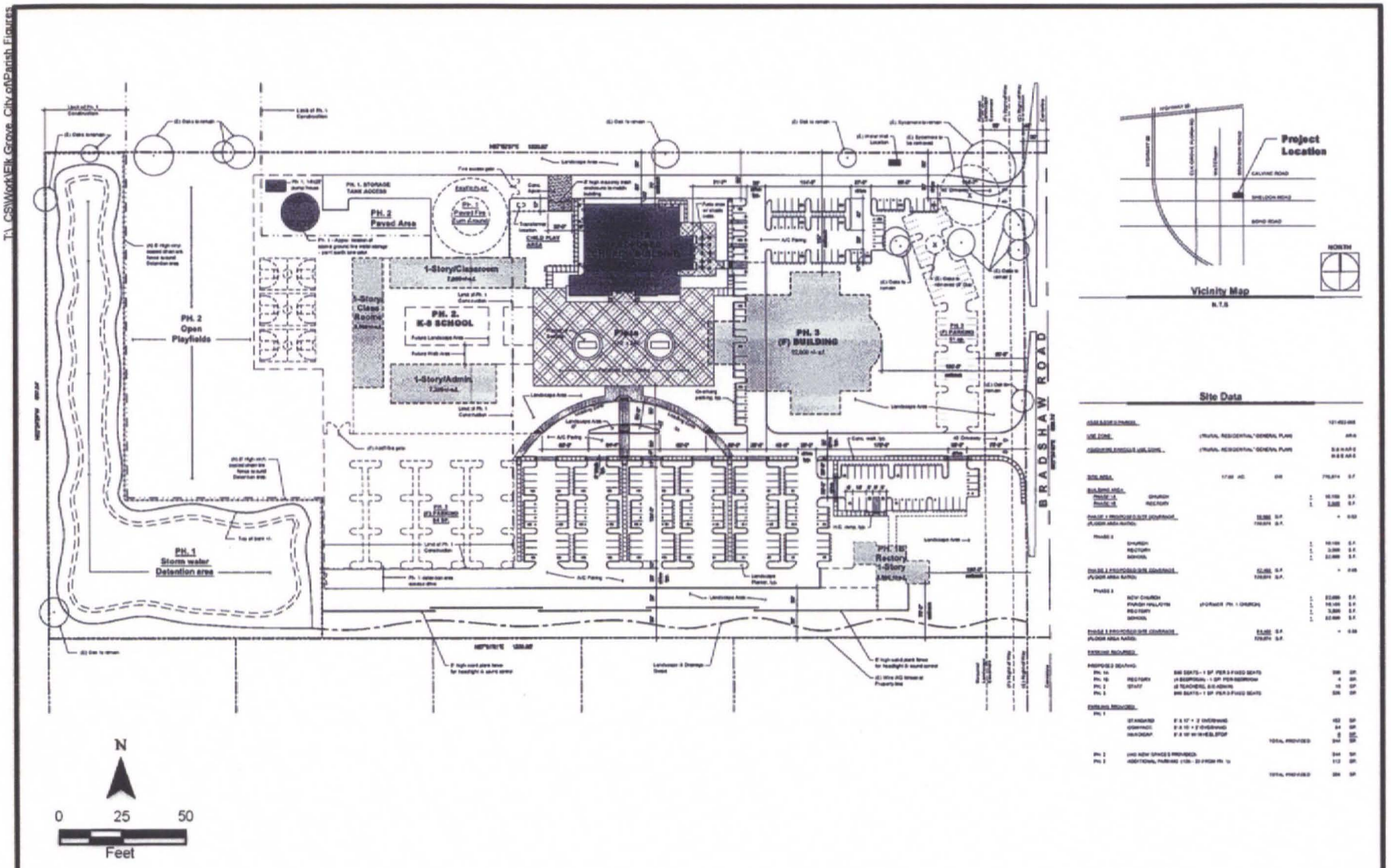


Source: Comstock Johnson Architects, Inc., April 15, 2008

City of Elk Grove
Development Services

FIGURE 3
Site Plan

DETERMINATION: (To be completed by the lead agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Planner's Signature

Date

April 2009

Sarah Kirchgessner

Planner's Printed Name

City of Elk Grove
Development Services - Planning

PURPOSE OF THIS INITIAL STUDY

This Initial Study (IS) has been prepared consistent with CEQA Guidelines Section 15063 to determine if the New Parish Church project, as proposed, may have a significant effect upon the environment. Based upon the findings contained within this report, the IS will be used in support of the preparation of a Mitigated Negative Declaration (MND).

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on project-specific screening analysis).

2) All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. Mitigation measures from other sections and "Earlier Analyses" may be cross-referenced.

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) The explanation of each issue should identify:

   a. The significance criteria or threshold, if any, used to evaluate each question; and

   b. The mitigation measure identified, if any, to reduce the impact to less than significance.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d)	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

DISCUSSION/CONCLUSION/MITIGATION:

a) ***No Impact.*** The City of Elk Grove General Plan and General Plan Draft Environmental Impact Report (DEIR) (SCH# 2002062082) do not identify or designate any scenic vistas within the City of Elk Grove Planning Area. The project site is located in a rural part of the city but does not contain any scenic vistas. Therefore, no impact in this regard would occur.

b) ***Less Than Significant Impact.*** California's Scenic Highway Program was created to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view (City of Elk Grove, 2003b). State Highway 160, or River Road, is the only state-designated scenic highway in the City of Elk Grove Planning Area (City of Elk Grove, 2003b). River Road is located approximately 9 miles west of the project site and therefore would not be impacted by the proposed project.

A scenic corridor is the land generally adjacent to and visible from the highway and is identified using a motorist's line of vision. Scenic corridors that extend 660 feet on each side of the right-of-way protect all freeways within Sacramento County. Both I-5 and SR 99 are located within the city and provide views for travelers passing through the city. The proposed project site is located approximately 8.3 miles from I-5 and 3.5 miles from SR 99.

The proposed project site is not in the vicinity of a state scenic highway or scenic corridor and therefore would have no impact to scenic resources within a state scenic highway

c) ***Less Than Significant Impact with Mitigation Incorporated.*** The visual character of the site and surrounding area is rural in nature, and are distinguished by low density single-family residences, pastureland, and a variety of trees. The proposed design of the church building includes slump block/plaster walls, stained wood beams and wall trim. The main roofs will be clay tile. Mechanical equipment such as the HVAC unit(s) would be hidden from view by being placed in roof wells. Design details of subsequent phases (Phase 2 school and Phase 3 church) were not available. However, Phase 2 and Phase 3 buildings will be required to obtain design review approval from the Planning Commission at the time plans are submitted. The above ground (fire and potable water) storage tankswill be painted an earthtone to reduce any visual impacts. Landscaping is also incorporated into the proposed project design and will provide additional visual screening of the site and tanks.

What is considered aesthetically pleasing is subjective by nature. Elk Grove General Plan land use policy LU-18 provides that land uses in the Sheldon Area (where the project is located) shall be consistent with the community's rural character, emphasizing lot sizes of at least two gross acres, roadways which preserve the area's mature trees, and limited commercial services. (Policy LU-18.) Additionally, Elk Grove General Plan Policy CAQ-8 identifies mature trees as an important aesthetic resource and trees over 6 inches diameter at breast height (dbh) are protected by the Elk Grove Tree Preservation and Protection Ordinance (City of Elk Grove, 2003c). The Initial Arborist Report prepared for the project identified 87 trees measuring over 6 inches dbh on the project site (Sierra Nevada Arborists, 2007). Of these, 17 are valley oak (*Quercus lobata*). Other trees on the project site include blue gum eucalyptus, California black walnut, almond, box elder, Brazilian pepper, fruitless mulberry, London plane, Modesto ash, and Plum.

The existing residence on the site, as well as the garage and sheds, will be demolished for the development of the proposed project. Development of the project would alter the existing visual character of the site from largely undeveloped and rural, with a vacant house and associated buildings, to a development which is more urban in scale and character including a church and school buildings, parking lots, and lighting for the parking area, as well as security lighting and landscaping. In addition, many of the trees located on the site are planned for removal to accommodate the expanded roadway and possible realignment of the ephemeral drainage crossings associated with the proposed project. These changes do not result in a substantial visual degradation from an environmental standpoint under CEQA, and thus, from an environmental/CEQA standpoint, the visual impacts are considered less than significant. However, the project may conflict with non-environmental local land use regulations and standards.

The project requires a CUP and a design review permit to allow institutional and private school uses within the AR-5 zone. While the proposed project does not result in a substantial visual degradation from an environmental standpoint under CEQA, from a land use perspective, and as indicated in the staff report dated December 6, 2007 for the project and in Section IX of this Initial Study, City staff feels that the project is inconsistent with the General Plan and the City's Design Guidelines because the project is out of character with the rural area. However, these are land use policy and project design issues to be addressed by the City's decision making body in considering whether to approve the project, and they do not rise to the level of a significant environmental impact under CEQA. It bears noting that while this Initial Study concludes that the project would have a less than significant aesthetic impact from an environmental standpoint under CEQA, the City's decision making body retains authority to approve, conditionally approve, or deny the CUP and the design review permit, taking into

account such factors as the character of the surrounding rural neighborhood, the orderly and harmonious growth in the City, and the physical, visual, and functional compatibility between uses. Such design related issues are the province of the City's design review process. Should the City's decision making body conclude that the project is consistent with the rural character standards set forth in the City's General Plan and design review guidelines, it would further support the conclusion that any visual impacts under CEQA are less than significant.

The City of Elk Grove General Plan DEIR (SCH# 2002062082) identified that implementation of the General Plan would result in significant and unavoidable alterations to existing landscape characteristics of the city, including rural residential areas.

Furthermore, the proposed project would be subject to the City of Elk Grove Design Guidelines for non-residential development, as well as the Elk Grove Tree Preservation and Protection Ordinance. The Elk Grove Design Guidelines implement the General Plan land use policies and strategies relative to design, pedestrian circulation, community and neighborhood identity, and residential, commercial, and industrial project design and would ensure physical, visual, and functional compatibility between uses, as well as encourage high-quality development in keeping with the desired character of the City. Through the design review process, elements such as building materials, color, roof composition, lighting, landscaping, and others are considered to ensure compatibility with the surrounding area.

The Tree Preservation and Protection Ordinance requires protection of, or mitigation for, native single-trunked trees 6 inches dbh and larger, or multi-trunked native trees having an aggregate diameter of 10 inches dbh and larger, as well as any significant trees. A significant tree is one that is in fair to good condition and is particularly large for its species. The Tree Ordinance does not typically require protection for any tree designated as unhealthy or hazardous by a certified arborist. Of the 87 trees over 6 inches dbh on the project site, 29 are non-native trees and 24 have been recommended for removal from the site due to the nature and extent of defects and compromised health.

Mitigation Measures

MM I-1 Prior to project approval and following finalization of specific development plans including depiction of information from the Tree Inventory and Summary (as shown in the Initial Arborist Report and Tree Inventory Summary conducted by Sierra Nevada Arborists and dated July 19, 2007), the applicant shall have an ISA-certified arborist review the plans to provide a detailed impact assessment, including identification of trees which may require removal for building construction and other contemplated site development activities. If trees are determined to be in poor condition, they shall be removed per the recommendations of the arborist (regardless of species). For trees greater than 6 inches dbh that are determined to be healthy, a site-specific mitigation plan shall be established by the certified arborist to protect or mitigate for the loss of trees consistent with the Tree Preservation and Protection Ordinance. In addition, any mitigation plan should include the General Preservation recommendations included in the *Initial Arborist Report and Tree Inventory Summary* conducted by Sierra Nevada Arborists, dated July 19, 2007.

Timing/Implementation: *Prior to ~~project approval~~ any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first.*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM I-2 The landscaping plan for the proposed project shall include screening for on-site water tanks.

Timing/Implementation: *Prior to ~~project approval~~ the issuance of improvement plans or building permits, whichever occurs first.*

Enforcement/Monitoring: City of Elk Grove, Development Services, Planning Department

Consistency with the City of Elk Grove Design Guidelines, such as appropriate building materials, use of colors that do not distract from the surrounding area, landscaping compatible with the surrounding area, and other similar requirements along with the Tree Preservation and Protection Ordinance and implementation of mitigation measures **MM I-1** and **MM I-2** would ensure that the proposed project would be visually compatible with the surrounding area and that trees on the site would either be protected as significant visual resources or their loss would be mitigated through a site-specific mitigation plan. Visual impacts resulting from implementation of the General Plan (e.g. alteration of existing landscape, change in visual character, etc.) were disclosed and addressed in the General Plan DEIR which is incorporated herein by reference and is available for review at the City of Elk Grove, Development Services Planning, 8401 Laguna Palms Way, Elk Grove, CA 95758 (CEQA Guidelines, § 15150, subd.(b).) Therefore, impacts associated with substantial degradation of existing visual character and scenic resources would be reduced to a less than significant level.

d) ***Less Than Significant Impact.*** The existing lighting conditions on the project site and surrounding area are rural in nature. The structures on the project site are currently vacant and therefore do not produce nighttime lighting. Rural residences in the area of the project site produce low levels of nighttime lighting. There are no significant sources of daytime glare on or around the project site. Non-residential land uses, such as the proposed project, typically generate more light than residential land uses. This is because non-residential lighting is used on a larger scale both for safety reasons and for the architectural enhancement of the development. Nonresidential land uses also tend to create more daytime glare as they typically use building materials that are more likely to be light-reflecting, such as metal or glass. Therefore, implementation of the proposed project would introduce new light and glare sources into the area.

Chapter 23.56 of the Elk Grove Zoning Code is intended to preserve the natural nighttime outdoor environment by regulating artificial lighting. Section 23.56.030 sets forth outdoor lighting standards for nonresidential development including: the requirement for all outdoor lighting to be constructed with full shielding so that the light source is not visible from within any residential dwelling unit; the minimum and average maintained foot-candles of light are required to be consistent with the provisions listed in Section 23.56.030 (2)(a-d); the maximum height of freestanding outdoor light fixtures for development

abutting residential property limited to 20-feet; the requirement for automatic timing devices for all new outdoor light fixtures with off hours (exterior lights turned off) between 10:00 p.m. and 6:00 a.m. except for security purposes; the requirement for architectural/landscaping lighting to use a narrow cone of light for the purpose of confining the light to the object; and the requirement for artificial illumination of signs to be designed to eliminate negative impacts on surrounding rights-of-way and properties. Furthermore, the City of Elk Grove Design Guidelines require the following: exterior site lighting to be designed so that light is not directed off the site and the light source is shielded downward from direct off-site viewing; exterior lighting to be architecturally integrated with the building style, material and colors and be of a human scale; and light features to be located and designed with cut-off lenses to avoid light spill and glare on adjacent properties. The Design Guidelines also specify that nonresidential buildings should be designed with minimal use of reflective materials in order to reduce daytime glare and that the use of highly reflective building materials is prohibited. The proposed project would be required to be consistent with both the Zoning Code and the Design Guidelines. As the requirements in the Zoning Code and the Design Guidelines are structured to prevent light spillage onto adjacent properties and prohibit highly reflective building materials that would cause daytime glare, consistency with these documents would ensure that new sources of light and glare resulting from the project site would be less than significant.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	**AGRICULTURE RESOURCES.** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☒	☐

DISCUSSION/CONCLUSION/MITIGATION:

a & b) ***Less Than Significant Impact.*** As shown in **Figure 4**, the most recent Department of Conservation's (DOC) Important Farmland Map (2004) identifies that the project site contains land designated as Farmland of Statewide Importance, Unique Farmland, and Other Land. The proposed project site is not under an active Williamson Act Contract or a Williamson Act Contract in nonrenewal.

Implementation of the proposed project would permanently convert 9.3 acres of Farmland of Statewide Importance and 7.3 acres of Unique Farmland on the project site to nonagricultural uses (**Figure 4**). However, the project site is not currently used for agricultural operations and is not expected to be used for large-scale agricultural operations in the future due to the relatively small size of the property (17.32 acres). The proposed project is consistent with City of Elk Grove General Plan policies that state that the loss of agricultural productivity on lands designated for urban uses within the city limits is accepted as a consequence of the development of Elk Grove (City of Elk Grove, 2003c). In addition, the City of Elk Grove General Plan DEIR (SCH# 2002062082) identified that implementation of the General Plan would result in significant and unavoidable loss of Important Farmlands (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance) as designated under the Farmland Mapping and Monitoring Program as well as lands under active Williamson Act contracts. The loss of agricultural lands resulting from development consistent with the General Plan were disclosed and addressed in the General Plan DEIR that is incorporated herein by reference. Loss of agricultural land and agricultural/urban interface conflicts were considered to be significant and unavoidable impacts in the General Plan DEIR. No further impact beyond those previously identified would occur in association with the proposed project. In addition, mitigation measure MM IV-2, which provides mitigation for Swainson's hawk through preservation of foraging habitat, which is typically agricultural land, would also lessen the effect of conversion of agricultural lands. For these reasons, impacts associated with the conversion of Important Farmland on the project site are considered to be less than significant.

c) ***Less Than Significant Impact.*** The placement of nonagricultural uses adjacent to agricultural uses can result in agriculture-urban interface conflicts that inadvertently place growth pressure on agricultural lands to convert to urban uses. These conflicts include inconveniences or discomforts associated with dust, smoke, noise, and odor from agricultural operations; restrictions on agricultural operations (such as pesticide application) along interfaces with urban uses; farm equipment and vehicles sharing roadways; and trespassing and vandalism on active farms. Land uses surrounding the project site, while rural in nature, do not support large-scale agricultural operations. However, small-scale farming operations could result in inconveniences such as dust and odors that would impact the proposed project site. The project includes landscaped buffers to separate the project from surrounding uses. The southern buffer consists of a 6-foot-high fence, set back 35 feet from the adjacent property line. These buffers would reduce impacts to/from any small-scale/accessory farming operations that are located on adjacent properties as part of its design. Therefore, impacts resulting from agriculture-urban interface conflicts would be less than significant.

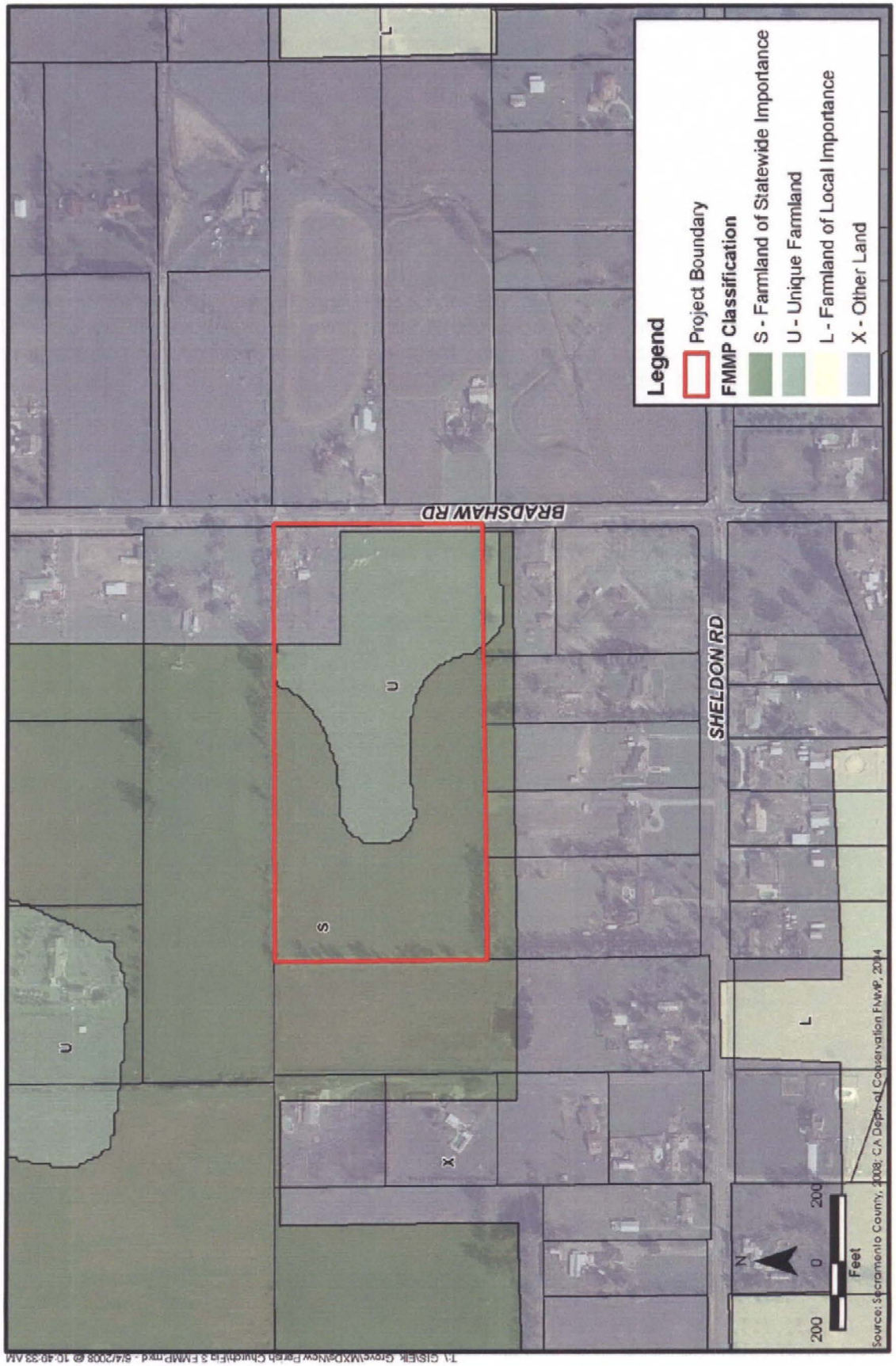


Figure 4
FMMP Map

City of Elk Grove
Development Services

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III.	**AIR QUALITY.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

DISCUSSION/CONCLUSION/MITIGATION:

a) **No Impact.** The project site is located within the Sacramento Metropolitan Air Quality Management District (SMAQMD), which is part of the Sacramento Valley Air Basin. The Sacramento Valley Air Basin has been further divided into Planning Areas called the Northern Sacramento Valley Air Basin (NSVAB) and the Greater Sacramento Air region, designated by the U.S. Environmental Protection Agency (USEPA) as the Sacramento Federal Ozone Non-attainment Area. The Nonattainment area consists of all of Sacramento and Yolo counties, and parts of El Dorado, Solano, Placer, and Sutter counties.

SMAQMD is responsible for limiting the amount of emissions that can be generated throughout Sacramento County by various stationary and mobile sources. Specific rules and regulations have been adopted by the SMAQMD Board of Directors that limit the emissions that can be generated by various uses and/or activities, and identify specific pollution reduction measures that must be implemented in association with various uses and activities. These rules not only regulate not only the emissions of the six criteria pollutants, but also toxic emissions and acutely hazardous materials. Emissions sources subject to these rules are regulated through SMAQMD's permitting process. Through this permitting process, SMAQMD also monitors the amount of stationary emissions being generated and uses this information in developing new clean air plans. The proposed project would be subject to SMAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts. Sacramento County is a known area of non-attainment for state and federal standards for ozone and particulate matter less than 10 microns in diameter (PM_{10}). Implementation of the project would result in increases in both construction emissions and increases in reactive organic gases (ROG) and nitrogen oxides (NOx), which are precursor components of ozone, and PM_{10}.

The project site is under the jurisdiction of SMAQMD. The California Clean Air Act of 1988 (CCAA) requires the air districts, including SMAQMD, to endeavor to achieve and maintain the state ambient air quality standards by the earliest practicable date and develop plans for attaining the state ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide standards. In compliance with the CCAA, SMAQMD prepared and submitted the 1991 Air Quality Attainment Plan (AQAP) to mainly address Sacramento County's non-attainment status for ozone and CO, and although not required, PM. The 1991 AQAP was designed to make progress toward attaining the state ozone standard and contained preliminary implementation schedules for control programs. The CCAA requirement for the first triennial progress report and plan revision of the 1991 AQAP was fulfilled with the preparation and adoption of the 1994 Sacramento Area Regional Ozone Attainment Plan. This document was incorporated as part of the State Implementation Plan (SIP) to meet the requirements of the Federal Clean Air Act (FCAA) and replaced the 1991 AQAP (SMAQMD, 2005).

A project would conflict with or obstruct implementation of the regional AQAP (Sacramento Area Regional Ozone Attainment Plan) if it is inconsistent with AQAP growth assumptions in terms of population, employment or regional growth in vehicle miles traveled. The emission inventories identified in the Sacramento Area Regional Ozone Attainment Plan are based on projected population forecasts developed by the Sacramento Area Council of Governments (SACOG) (SMAQMD, 1994). These population forecasts are developed, in part, on data obtained from local jurisdictions and projected land uses and population projections identified in community plans. Projects that result in an increase in population growth that is inconsistent with local community plans would be considered inconsistent with the Sacramento Area Regional Ozone Attainment Plan.

The proposed project is not residential in nature, consisting of a parish church, offices, a multi-purpose building, a rectory, and a K-8 school, and therefore would not directly result in population growth. In addition, the proposed project is intended to serve residents currently living within the northeastern portion of the City of Elk Grove and is therefore not likely to indirectly induce population growth in the city. As the project would not exceed population projections in the City of Elk Grove General Plan, the project would not be inconsistent with the population forecasts developed by SACOG or with AQAP growth assumptions. Therefore, no impact would occur relative to implementation of the regional AQAP (Sacramento Area Regional Ozone Attainment Plan).

b), d) ***Less Than Significant Impact.*** The CEQA Guide published by SMAQMD includes two tables (Tables 2.2 and 4.2 Project Sizes with Potentially Significant Emissions) which provide screening thresholds for various projects relative to construction and operation. The screening table was created using the SMAQMD-adopted software model URBEMIS 2007 v.9.2.2 (**Appendix A**). The reported square footage thresholds for development are based on either a ROG or NO_x threshold of 65 pounds per day, whichever is achieved first (URBEMIS 2007 v9.2.0). Operational emissions include area source emissions for analysis year 2008. Construction emissions include default phases and equipment, in addition to a Mass Grading Phase of 5 days with default equipment (SMAQMD, 2009). The construction screening threshold for a church/place of worship is 550,000 square feet and the corresponding operational screening threshold is 650,000 square feet. Similarly for a high school the construction screening threshold is 550,000 square feet and the operational screening threshold is 459,500 square feet. As neither the church nor the school component of the proposed project meets these thresholds, emissions would be considered less than significant.

c) ***Less Than Significant Impact***

Greenhouse Gas Emissions

The greenhouse effect is a natural process by which some of the radiant heat from the sun is captured in the lower atmosphere of the earth, thus maintaining the temperature and making the earth habitable. The gases that help capture the heat are called greenhouse gases (GHGs). Some GHGs occur naturally in the atmosphere, while others result from human activities. Naturally occurring GHGs include water vapor, carbon dioxide, methane, nitrous oxide, and ozone. Certain human activities, however, add to the levels of these naturally occurring gases as described below:

- Carbon dioxide (CO2) is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), wood and wood products are burned.

- Methane (CH4) is emitted during the production and transport of coal, natural gas, and oil.

- Methane emissions also result from the decomposition of organic waste in solid waste landfills, and from the raising of livestock.

- Nitrous oxide (N2O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels.

- High global warming potential (GWP) gases that are not naturally occurring, including hydrofluorocarbons (HFCs), perflourocarbons (PFCs), and sulfur hexafluoride (SF6), are generated in a variety of industrial processes.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. High GWP gases such as HFCs, PFCs, and SF_6 are the most heat-absorbent. Methane traps over 21 times more heat per molecule than CO_2, and N_2O absorbs 310 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its GWP. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. **Table III-1** shows the GWPs for different GHGs for a 100-year time horizon.

TABLE III-1
GLOBAL WARMING POTENTIALS FOR GREENHOUSE GASES

Greenhouse Gas	Global Warming Potential
Carbon Dioxide (CO_2)	1
Methane (CH_4)	21
Nitrous Oxide (N_2O)	310
Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs)	6,500
Sulfur Hexafluoride (SF_6)	23,900

Source: BAAQMD, 2006.

Several bills and two Executive Orders have been passed to address the issue of GHGs. They include Assembly Bill (AB) 1493 and 32, Senate Bill (SB) 1368 and 97, and Executive Order (EO) S-3-05 and S-1-07. AB 1493 requires the California Air Resources Control Board (CARB) to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks beginning with model year 2009 vehicles. AB 32 was signed in September of 2006 and requires that statewide GHGs emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement mechanisms to ensure that the State achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reduction in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

SB 1368 is the companion bill of AB 32 and was also signed in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a GHG emission performance standard for baseload generation from investor-owned utilities by February 1, 2007. Likewise, the California Energy Commission was required to establish a similar standard for local publicly owned utilities by June 30, 2007.

Governor Schwarzenegger signed Senate Bill (SB) 97 (Sutton), a CEQA and greenhouse gas emission bill, into law on August 24, 2007. SB 97 requires the Governor's Office of Planning and Research ("OPR") to prepare CEQA guidelines for the mitigation of GHG emissions, including, but not limited to, effects associated with transportation or energy consumption. OPR must prepare these guidelines and transmit them to the Resources Agency by July 1, 2009. The Resources Agency must then certify and adopt the guidelines by January 1, 2010. OPR and the Resources Agency are required to periodically review the guidelines to incorporate new information or criteria adopted by ARB pursuant to the Global Warming Solutions Act, scheduled for 2012.

In June 2008, OPR issued a "Technical Advisory" on CEQA and climate change. In January 2009, OPR released proposed amendments to the State CEQA Guidelines to address climate change. Under SB 97, the Resources Agency must approve the amendments by January 1, 2010. Although the proposed guidelines are in draft form, they have been considered in preparing the analysis set forth in this chapter.

Land use projects may contribute to the phenomenon of global climate change in ways that would be experienced worldwide, and with some specific effects felt in California. However, no scientific study has established a direct causal link between individual land use project impacts and global warming. AB 32 requires State-wide GHG emissions to be reduced to 1990 levels by 2020. Although these State-wide reductions are now mandated by law, no generally applicable GHG emission threshold has yet been established, nor is formal regulatory agency guidance on global climate change analysis in CEQA documents anticipated to be available until 2010 at the earliest.

CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

Because no applicable numeric thresholds have yet been defined, and because the precise causal link between an individual project's emissions and global climate change has not been developed, it is reasonable to conclude that an individual development project cannot generate a high enough quantity of GHG emissions to affect global climate change. However, individual projects incrementally contribute toward the potential for global climate change on a cumulative basis in concert with all other past, present, and reasonably foreseeable future projects.

EO S-3-05 was signed in 2005 and declared that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. EO S-3-05 established total GHG emission targets to combat these concerns. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

EO S-1-07, the Low Carbon Fuel Standard (LCFS) (issued on January 18, 2007), calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. It instructed the California Environmental Protection Agency to coordinate activities between the University of California, the California Energy Commission and other state agencies to develop and propose a draft compliance schedule to meet the 2020 target. Furthermore, it directed ARB to consider initiating regulatory proceedings to establish and implement the LCFS. In response, ARB identified the LCFS as an early action item with a regulation to be adopted and implemented by 2010.

Cumulative Impacts on Climate Change

For purposes of this Mitigated Negative Declaration, the proposed project's GHG emissions have been evaluated based on guidance issued by OPR. OPR's guidance states that for CEQA documents:

- GHG emissions be estimated,
- Project impacts be compared against a threshold, and

- Mitigation measures be implemented to reduce significant project impacts.

Construction of the proposed project would increase daily vehicle trips to and from the project site, thereby increasing GHG emissions. No air district in California, including the Sacramento Metropolitan Air Quality Management District (SMAQMD), has identified a quantified significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to GHG emissions. As such, the project's incremental contribution to global climate change would be considered significant if it would result in:

Substantial Increase in GHG Emissions

A project's incremental contribution to global climate change would be considered significant if it would result in substantial net increases in GHG emissions. For the purposes of this analysis, the project would have a significant impact if it would emit more than 3,000 metric tons of CO_2e per year (South Coast Air Quality Management District, 2008). Projects that exceed this suggested threshold would be responsible for meeting a performance standard for transportation or area sources that reduces emissions beyond a "business as usual" scenario. This is based on CARB's proposed guidance for assessing the significance of residential or commercial projects (Staff Proposal on Greenhouse Gas Thresholds of Significance under CEQA *Potential Performance Standards and Measures* (CARB, 2008).

Based on modeling using the URBEMIS 2007 model (version 9.2.4), the proposed project would generate 6,720 pounds of CO_2 emissions from mobile (motor vehicle) sources on an average weekday and 4,844 pounds during an average Sunday. In addition, the project would generate 307 pounds of CO_2 emissions from area sources, such as landscape equipment and natural gas energy use, on an average weekday, with 480 pounds during an average Sunday. Based on this profile of emissions, the proposed project would emit 1,123 metric tons of CO_2e per year, which is below the threshold for this analysis. As such, the project's impact would be considered less than significant on climate change.

It should be noted that the proposed project would implement LEED features into the project addressing the site sustainability, water efficiency, alternative energy, materials and resources, indoor environmental quality, and design process, which are similar to "best practices" measures recommended by the Attorney General to reduce the carbon footprint of development projects.

Exposure of Persons to Significant Risks

Emitting CO_2 into the atmosphere is not itself an adverse environmental effect. It is the increased concentration of CO_2 in the atmosphere resulting in global climate change and the associated consequence of climate change that results in adverse environmental affects, which could affect the project in direct and indirect ways:

- Extreme heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent;

- An increase in heat-related human deaths and infectious diseases and a higher risk of respiratory problems caused by deteriorating air quality;

- Reduce snow pack and stream flow in the Sierra Nevada mountains, affecting winter recreation and water supplies;
- Potential increase in the severity of winter storms, affecting peak stream flows and flooding;
- Changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield; and
- Changes in distribution of plant and wildlife species due to changes in temperature, competition of colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

However, the proposed residential, church, school, and related improvements would not expose persons to significant risk from these potential long-term impacts associate with climate change. These impacts are considered less than significant.

e) ***No Impact.*** Generally, objectionable odors result from land uses such as intensive agricultural operations, certain industrial activities, solid waste facilities, and wastewater treatment facilities. Implementation of the proposed project would result in a church and associated school and multi-purpose buildings being constructed on the project site. These land uses would not be expected to create long-term objectionable odors affecting a substantial number of people. In addition, the proposed project is surrounded by rural residential uses that would not be expected to produce objectionable odors that would affect future church patrons and students. Therefore, no impacts associated with objectionable odors are anticipated.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means?	☐	☒	☐	☐
d) 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?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	☐	☐	☐	☒

This section is based on a Biological Resource Assessment (City of Elk Grove, 2008), Preliminary Wetland Assessment (Gibson & Skordal, 2007), Arborist Report (Sierra Nevada Arborists, 2007) and Tree Map (German Engineering, 2005). These reports and map are provided in **Appendix B**.

DISCUSSION/CONCLUSION/MITIGATION:

a) ***Less Than Significant With Mitigation Incorporated.*** A reconnaissance-level survey was conducted on March 26, 2008 to evaluate the biological resources within the proposed project site. Prior to the reconnaissance-level survey, a background information search for potential special-status species was conducted utilizing the California Natural Diversity Data Base (CNDDB) (CDFG, 2008a), CNDDB QuickViewer for unprocessed data (CDFG, 2008b), U.S. Fish and Wildlife Service (USFWS, 2008), and California Native Plant Society (CNPS, 2008) for the Elk Grove, California United States Geologic Survey (USGS) 7.5-minute quadrangles (Sacramento East, Carmichael, Buffalo Creek, Florin, Sloughhouse, Bruceville, Galt and Clay) (City of Elk Grove, 2008a). The project site consists of a rural residence and open grassland and is predominantly flat with little to no topographic relief.

Vegetation within the project site primarily consists of annual grassland and ornamental trees and shrubs. Species observed include dandelion (*Taraxaxum officinale*), Italian ryegrass (*Lolium multiflorum*), wild oat (*Avena fatua*), vetch (*Vicia villosa*), filaree (*Erodium botrys*), turkey mullein (*Eremocarpus setigerus*), medusa-head (*Taeniatherum caput-medusa*), Bermuda grass (*Cynodon dactylon*), yellow-star thistle (*Centaurea solstitialis*), curly dock (*Rumex crispus*), and rip-gut brome (*Bromus diandrus*), as well as other common grasses and forbs. Numerous valley oak (*Quercus lobata*) trees and tall eucalyptus (*Eucalyptus* sp.) trees are located within and around the project site. In addition, numerous almond (*Prunus dulcis*) trees and a sycamore (*Platanus* sp.) were observed within the project site (City of Elk Grove, 2008a).

Wildlife species observed during the project site survey include western scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), house sparrow (*Passer domesticus*), black phoebe (*Sayornis nigricans*), and numerous other passerine birds. A large red-tail hawk (*Buteo jamaicensis*) was roosting in a eucalyptus tree bordering the project site. Numerous gopher mounds were located within the project site and small burrows were also observed. No special-status plant or wildlife species were observed during the survey; however, no species-specific surveys were conducted and the negative outcome of the surveys does not preclude that special-status species do occur or use the area within the project site (City of Elk Grove, 2008a).

Development of the project site has the potential to impact special-status species and, consistent with General Plan Policy CAQ-11, species-specific biological resources evaluations are needed to determine the presence/absence of special-status plant and animal species on the project site.

Western Burrowing Owl

The western burrowing owl (*Athene cunicularia hypugea*) is a California species of special concern. Burrowing owls are year-round residents in the open, dry grasslands of the Central Valley. During fall and winter, local residents may move from nesting areas, and migrants may move in. Burrowing owls nest and take shelter in burrows in the ground, typically burrows excavated by other species such as ground squirrels. They forage in grasslands and agricultural fields. Although there are no previously recorded occurrences of burrowing owl within 5 miles of the project site, suitable nesting and foraging habitat is present within the project site (City of Elk Grove, 2008a).

Mitigation Measure

MM IV-1 Within 30 days prior to the start of any construction activity, outside of the western burrowing owl breeding season (September through January), a qualified biologist shall conduct a burrow survey to determine if burrowing owls are present within the project area. If no burrowing owls are detected as part of the preconstruction surveys, no further mitigation is required. If active burrowing owl burrows are detected, the applicant shall implement the following mitigation measures:

1) If burrowing owls are observed on the site, measures such as flagging the burrow and avoiding disturbance, passive relocation, or active relocation to move owls from the site shall be implemented consistent with CDFG protocols (1995) to ensure that no owls or active burrows are inadvertently affected during construction. All measures shall be determined by a

qualified biologist in consultation with the California Department of Fish and Game (CDFG).

2) All burrowing owl surveys shall be conducted according to CDFG protocol (1995). The protocol requires, at a minimum, four field surveys of the entire site and areas within 500 feet of the site by walking transects close enough that the entire site is visible. The survey should be at least three hours in length, either from one hour before sunrise to two hours after or two hours before sunset to one hour after. Surveys shall not be conducted during inclement weather, when burrowing owls are typically less active and visible.

Timing/Implementation: *Within 30 day Pprior to construction and site grading activities or any other site disturbance such as clearing or grubbing*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

Implementation of the above mitigation measure would ensure that any western burrowing owls on the site would be identified and protected according to CDFG guidelines. Therefore, impacts to the western burrowing owl would be reduced to a less than significant level.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is listed as threatened in California. The preferred breeding habitat of this raptor consists of large trees, which serve as nesting sites, proximate to extensive areas of grassland and/or open fields, which serve as foraging habitat. Swainson's hawks begin to arrive in the Central Valley from South America in March to breed and raise their young. They typically nest in large, mature trees such as valley oak, cottonwood (*Populus* spp.), willow (*Salix* spp.), and native black walnut (*Juglans nigra*). Selected trees are typically located near suitable foraging habitat and often within riparian corridors. Swainson's hawks forage in open grasslands, agricultural fields, and pastures. Alfalfa, row crops, grain fields, and irrigated pastures are the Swainson's hawk's preferred foraging habitats, where they take advantage of the opportunities that harvesting and irrigating practices provide for the easy capture of small rodents. They do not forage in vineyards, orchards, or flooded rice fields. The grasslands within the project site provide suitable nesting and foraging habitat for this species. There are 24 previously recorded occurrences of this species nesting within a 5-mile radius of the project site (City of Elk Grove, 2008a).

Currently the City of Elk Grove enforces mitigation for the loss of Swainson's hawk foraging habitat through Chapter 16.130 of the City's Municipal Code (Swainson's Hawk Ordinance). If projects are greater than five acres in size and have suitable foraging habitat, such as open grassland, the project will likely require mitigation for lost foraging habitat. Since the proposed project site contains more than five acres of suitable foraging habitat, mitigation is required. The City's Swainson's Hawk Ordinance requires the payment of a mitigation fee and/or preservation of habitat for each acre of Swainson's hawk habitat lost.

Mitigation Measures

MM IV-2 In order to mitigate for the loss of Swainson's hawk foraging habitat, the applicant shall implement one of the following City of Elk Grove's approved mitigation alternatives.

Prior to any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first, the project applicant shall:

- Preserve similar habitat for each acre lost through a fee title or conservation easement acceptable to the CDFG and the City of Elk Grove as set forth in Chapter 16.130.040(a) of the City of Elk Grove Municipal Code as such may be amended from time to time and to the extent that said chapter remains in effect, OR

- Submit payment of Swainson's hawk impact mitigation fee per acre or habitat impacted to the City of Elk Grove in the amount set forth in Chapter 16.130 of the City of Elk Grove Code as such may be amended from time to time and to the extent that said chapter remains in effect, OR

- Submit proof that Swainson's hawk foraging habitat mitigation credits have been purchased at the California Department of Fish and Game approved mitigation bank, or from a property owner with available City-approved credits, in the amount set forth in chapter 16.130 of the City of Elk Grove Code as such may be amended from time to time and to the extent that said chapter remains in effect.

Timing/Implementation: *Prior to any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first.*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department in consultation with CDFG, as needed.*

MM IV-3 In order to mitigate for potential adverse impacts to nesting Swainson's hawks, a pre-construction survey and nesting season surveys shall be conducted by a qualified biologist contracted by the applicant or by the City and funded by the applicant. The pre-construction survey shall be conducted within 30 days of the start of construction activities. The nesting season surveys shall be conducted once in April and once in May within 500 feet of the project site. If active Swainson's hawk nests are found, the applicant shall consult with the Department of Fish and Game regarding the appropriate protection measures to implement, which may include halting or postponing land clearing and construction activities until all young have fledged and additional nesting attempts no longer occur. If a nest tree is found on the project site prior to construction and is proposed for removal, then appropriate permits from CDFG shall be obtained and mitigation implemented pursuant to CDFG guidelines.

- Prior to issuance of building or grading permits, the applicant shall provide Development Services, Planning Department written verification that a qualified biologist has been retained by the applicant to perform the pre-construction survey. This action may be waived if the biologist will be contracted by the City at the applicant's expense.

- No earlier than 30 days before commencement of construction activities, including land clearing, the qualified biologist shall submit and certify to the Planning Director the results of the pre-construction survey. Failure to submit the required survey results will delay the approval to initiate construction activities, including land clearing.

- No later than April 30, *the* qualified biologist shall submit and certify to the Planning Director the results of the 500-foot site perimeter survey. Failure to submit the required survey results will cause any construction activity to be halted until such results are submitted and approved by the Planning Director. If no construction activities have taken place, failure to submit the required survey results will delay the approval to initiate construction activities, including land clearing.

- No later than May 31, the qualified biologist shall submit and certify to the Planning Director the results of the 500-foot site perimeter survey. Failure to submit the required survey results will cause any construction activity to be halted until such results are submitted and approved by the Planning Director. If no construction activities have taken place, failure to submit the required survey results will delay the approval to initiate construction activities, including land clearing.

Timing/Implementation: *Within 30 days of construction activity, such as clearing or grubbing, or grading, building or other site disturbance ~~A~~as indicated in the monitoring actions*

Enforcement/Monitoring: *City of Elk Grove Development Services and CDFG*

Implementation of the above mitigation measures would protect active nests and provide mitigation for lost foraging habitat, thus reducing impacts to Swainson's hawk to a less than significant level.

Raptors and Migratory Birds

Trees in and around the project site may provide nesting habitat for raptors and migratory birds protected under the Migratory Bird Treaty Act (MTBA). According to a search of the California Natural Diversity Data Base (CNDDB), numerous raptors and migratory birds may occur within the project site, including raptors such as Cooper's hawk (*Accipiter cooperi*; a California species of special concern), northern harrier (*Circus cyaneus*; a California species of special concern), and white-tailed kite (*Elanus leucurus*; a California fully protected species) (City of Elk Grove, 2008a). Implementation of the proposed project could impact trees that could provide nesting sites to many MBTA protected birds. Construction activities that require the disturbance of trees and vegetation could cause a direct impact to nesting raptors and migratory birds. Removal of habitat within the project area would be considered a direct and significant impact if

sensitive bird species were taken. Construction could also result in noise, dust, increased human activity, and other indirect impacts to nesting raptors or migratory bird species in the project vicinity. Potential nest abandonment and mortality to eggs and chicks, as well as stress from loss of foraging areas would also be considered significant impacts.

Mitigation Measures

MM IV-4 The applicant shall conduct construction activities and vegetation clearing (including shrubs and bushes) to avoid raptor nesting activities, where feasible. No action is necessary if construction will occur during the non-breeding season (September 1 through February 28).

1) If proposed construction activities (including earthmoving or vegetation removal) are planned to occur during the nesting seasons for raptors and migratory birds (typically March 1 through August 31), the applicant shall retain a qualified biologist to conduct a focused survey for active nests of raptors and migratory birds within and in the vicinity of no less than 500 feet outside project boundaries, where possible.

2) Surveys shall occur no more than two weeks prior to ground disturbance or tree removal.

3) If active nests are located onsite or within the buffer area during preconstruction surveys, USFWS and/or CDFG shall be notified regarding the status of the nests.

4) Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or a qualified biologist deems disturbance potential to be minimal (in consultation with USFWS and/or CDFG.

5) Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment) at a minimum radius of 100 feet around any raptors nest, and 50 feet around the nest for other migratory birds.

6) Restrictions may also include the alteration of the construction schedule.

7) In addition, a qualified wildlife biologist shall monitor the nest(s) to determine when the young have fledged and submit biweekly reports to the City Planning Department throughout the nesting season. The biological monitor shall have the authority to cease construction if there is any sign of distress to the raptor or migratory bird.

8) Reference to this requirement and the MBTA shall be included in the construction specifications.

Timing/Implementation: *Within 14 days Pprior to construction and site grading activities or any site disturbance, such as clearing or grubbing*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

Implementation of the above mitigation measure would protect active nests and provide mitigation for lost foraging habitat, thus reducing impacts to raptors and other migratory birds to a less than significant level.

Special-status Bats

Suitable roosting habitat for special-status bat species occurs within the project site in the abandoned structures (City of Elk Grove, 2008a). Construction of the project would result in the removal of buildings and other appropriate roosting habitat, which could result in direct mortality to these species if present.

Mitigation Measures

MM IV-5 Prior to initiation of construction activity, a bat survey shall be performed by a wildlife biologist or other qualified professional.

1) If bat roosts are identified onsite, the City shall require that the bats be safely flushed from the sites where roosting habitat is planned to be removed prior to maternity roosting season (typically May to August). Flushing of sites shall occur for each construction phase prior to the onset of construction activities.

2) If a female or maternity colony of bats are found on the project site and the project can be constructed without the elimination or disturbance of the roosting colony (e.g., if the colony roosts in an area not planned for removal), a wildlife biologist shall determine what physical and timed buffer zones shall be employed to ensure the continued success of the colony. The City will comply with the recommendation of the biologist to the extent feasible.

   - Such buffer zones may include a construction-free barrier of 250 feet from the roost and/or the timing of the construction activities outside of the maternity roost season (typically May to August).

3) If an active nursery roost is known to occur onsite and the project cannot be conducted outside of the maternity roosting season, bats shall be excluded from the site after August and before May to prevent the formation of maternity colonies. Non-breeding bats shall be safely evicted, under the direction of a bat specialist.

Timing/Implementation: *Prior to construction and site grading activities or the issuance of any permit for grading or building*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

Implementation of the above mitigation measure would protect bat roosts and would reduce impacts to special-status bat species to a less than significant level.

Implementation of mitigation measures **MM IV-1** through **MM IV-5** would reduce impacts to special-status wildlife species to a less than significant level by conducting site-specific surveys for special-status species consistent with General Plan Policy CAQ-11, ensuring

that if the species were present they must either be avoided or mitigated for in accordance with state and federal guidance, and ensuring that sensitive areas would be protected from construction activities. Therefore, impacts to special-status western burrowing owl and Swainson's hawk, raptors and migratory birds, and special status bats, and their foraging and nesting habitat would be reduced to a less than significant level.

b) ***Less Than Significant with Mitigation Incorporated.*** Sensitive natural habitats include those that are of special concern to resource agencies and those that are protected under CEQA, Section 1600 of the California Fish and Game Code, or Section 404 of the Clean Water Act (CWA). Riparian habitats are also considered to be a sensitive natural community under CEQA. City of Elk Grove Policy CAQ-9 identifies that wetlands, vernal pools, marshland, and riparian (streamside) areas are considered to be important resources, and requires that the City seek to ensure that "no net loss" of these resources occurs (City of Elk Grove, 2003c). The biological survey conducted on March 26, 2008 did not identify any riparian habitats, vernal pools, or marshlands on the project site (potential wetland features are discussed under item **c)** below). Therefore, the project would not impact riparian habitat. As discussed under item **a)** above, the project site contains sensitive natural habitat for species such as the western burrowing owl, the Swainson's hawk, and other migratory birds.

Mitigation Measures

Implementation of mitigation measures **MM IV-1**, **MM IV-2**, **MM IV-3**, **MM IV-4**, and **MM IV-5** and subsequent avoidance and protection measures would ensure that sensitive areas would be protected from construction activities. Therefore, potential impacts to sensitive natural habitats would be reduced to a level that would be considered less than significant.

c) ***Less Than Significant with Mitigation Incorporated.*** A preliminary wetland assessment was conducted on the project site in the summer of 2007 by Gibson and Skordal, LLC, Wetland Consultants. The assessment was initially based on photographs of the project site and identified 0.17 acres of potential wetlands. In addition, the assessment identified that the roadside drainage ditch located on the project site along Bradshaw Road could potentially be wetlands/jurisdictional waters of the U.S. as defined by Section 404 of the Clean Water Act. After field observation, the assessment noted that the 0.17 acres identified during photo-review did not have discernable depressions and did not appear to have soils capable of supporting wetlands. The field review also identified that the drainage ditch did not have wetland vegetation associated with it and did not appear to flow for long durations after storm events (Gibson and Skordal, 2007).

Although neither the photo-identified acreage nor the drainage ditch appeared to be wetlands/jurisdictional waters, the wetland assessment noted that the site had been disced prior to field review and therefore any assessment was preliminary and subject to change after review of the site when vegetation was identifiable. The assessment also noted that if the features on site were wetlands, they would most likely be considered intrastate isolated waters, which are not regulated by the United States Army Corps of Engineers (USACE) (Gibson and Skordal, 2007). However, because the assessment could not confirm that the features identified were not wetlands, the features on the site are considered potential wetlands/jurisdictional waters and project activities could possibly be regulated by the USACE under Section 404 of the Clean Water Act. If the presence of jurisdictional waters is confirmed by a wetland delineation, the project applicant would

need to mitigate for the loss and disturbance of these waters within the project site to ensure no net loss of wetlands.

Mitigation Measure

MM IV-6 The City of Elk Grove shall require that a qualified biologist conduct a wetland delineation so as to determine the jurisdictional features that are located within the project area. The applicant shall provide the wetland delineation verification to the City prior to approval of improvement plans that would result in any potential effects to the .17 acres. If feasible, future development shall be designed to avoid all impacts to any jurisdictional waters if found. If jurisdictional waters are found and cannot be avoided, a no net loss policy shall be employed to satisfy General Plan Policy CAQ-9, and the appropriate permits (i.e., Section 404 and 401 under the CWA) shall be obtained prior to issuance of grading permits.

The project applicant shall comply with all permit conditions and employ best management practices and measures (established by the permitting authorities and the City) to minimize and compensate for potential impact to any jurisdictional waters. If the 404 Permit process requires additional wetland mitigation and compensation beyond the "no net loss of wetland area" outlined in the City's General Plan Policy CAQ-9, then the project applicant shall implement the requirements of the permit conditions. In addition, wetland delineation and mitigation details shall be noted on the design plans for any future development.

Timing/Implementation: *Prior to any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first.*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department, U.S. Army Corps of Engineers, Regional Water Quality Control Board*

Implementation of the above mitigation measure would identify any wetland/jurisdictional features on the project site and would ensure that impacts would be reduced to a less than significant level.

d) ***Less Than Significant with Mitigation Incorporated.*** Since the project site is located in a rural portion of Elk Grove, there is the potential that wildlife does pass through the site. Implementation of the proposed project could impede the movement of wildlife through the project site. However, the area surrounding the project site is sparsely developed with rural residential uses. Development of the proposed project site would not block a wildlife corridor and wildlife would not be impeded from traversing the areas surrounding the site. Additionally, the biological survey did not identify any native wildlife nurseries or water features that would support the movement of fish on the project site.

Mitigation Measures

Mitigation measures **MM IV-1** through **MM IV-5** as identified under item a) above would protect any nursery sites discovered as part of species-specific surveys. The project would not result in new impacts not previously disclosed in the City of Elk Grove General

Plan DEIR (SCH# 2002062082). Therefore, impacts associated with substantial interference of the movement of wildlife or with the use of native wildlife nursery sites would be less than significant.

e) ***Less Than Significant with Mitigation Incorporated.*** Currently, the only ordinances protecting biological resources in the city (other than General Plan policies) are the City of Elk Grove Tree Preservation and Protection Ordinance and the City of Elk Grove Swainson's Hawk Ordinance.

Under the current City of Elk Grove Tree Preservation and Protection Ordinance (Chapter 19.12 in the City of Elk Grove Code) native oak trees measuring at least 6 inches dbh are protected and mitigation must be implemented for development projects that propose to remove the protected trees (native single-trunked trees 6 inches dbh and larger, or multi-trunked native trees having an aggregate diameter of 10 inches dbh and larger significant trees 19 inches dbh and larger). The Initial Arborist Report prepared for the project identified 87 trees measuring over 6 inch dbh on the project site (Sierra Nevada Arborists, 2007). Of these, 17 are valley oak (Quercus lobata). Other trees on the project site include blue gum eucalyptus, California black walnut, almond, box elder, Brazilian pepper, fruitless mulberry, London plane, Modesto ash, and plum. Of the 87 trees over 6 inch dbh on the project site, 29 are non-native trees measuring less than 19 inch dbh and 24 have been recommended for removal from the site due to the nature and extent of defects and compromised health. Mitigation measure **MM ~~IV~~1-1**, as identified in the Aesthetics section of this Initial Study/Mitigated Negative Declaration, requires a site-specific mitigation plan to be established to protect or mitigate for the loss of trees consistent with the Tree Preservation and Protection Ordinance.

The Swainson's Hawk Ordinance (Chapter 16.130 of the City of Elk Grove Code), requires development projects to mitigate impacts to Swainson's hawk foraging habitat. Mitigation measure **MM IV-3**, as identified under item **a)** above, requires the applicant to compensate for the permanent loss of Swainson's hawk foraging habitat per the requirements of the City's Swainson's Hawk Ordinance. Therefore, the proposed project's potential to conflict with local ordinances protecting biological resources would be mitigated to a less than significant level.

f) ***No Impact.*** The City of Elk Grove does not have an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan. Therefore, no impact would occur.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in ? 15064.5?	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to ? 15064.5?	☐	☒	☐	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

DISCUSSION/CONCLUSION/MITIGATION:

a-d) ***Less Than Significant with Mitigation Incorporated.*** A cultural resources investigation was conducted in order to determine the archaeological and historic sensitivity of the project site (City of Elk Grove, 2008b, **Appendix C**). The investigation included a review of previous cultural resources projects and records searches conducted in the area for the City of Elk Grove. The majority of the project site has not been previously surveyed for cultural resources. Several surveys, however, have been conducted in the general area. None of the previous surveys in the area of the project identified any significant cultural resources (e.g., prehistoric sites, historic sites, historic buildings, or isolated artifacts). The abandoned residence located on the project site was recorded and determined ineligible for the National Register of Historic Places and the California Register of Historical Resources as part of previous investigations for the Sheldon Road/Bradshaw Road Improvements Project in 2004. The cultural resources investigation suggested that the project site is not sensitive for the presence of cultural resources including historic, archaeological, and paleontological resources and/or human remains. Therefore, it is not anticipated that implementation and completion of the proposed project would likely affect any historical resources or unique archaeological resources pursuant to Public Resources Code (PRC) 15064.5 (City of Elk Grove, 2008b). Likewise, potential for the project to impact paleontological resources is considered unlikely.

While there were no specific cultural resources and/or human remains identified within the project site, the area was not formally surveyed for the presence/absence of cultural resources and the potential exists for the discovery of buried deposits or features from the archaeological and/or historical past to occur during construction activities. Resources may include artifacts, objects, and locations associated with an event or person of California or American history or prehistory which constitute resources of importance under CEQA and may be eligible for the California Register or National Register. Human remains could also be discovered. The City of Elk Grove General Plan Policy HR-6, Action 2 requires that conditions protecting undiscovered prehistoric and historic archaeological resources and human remains be imposed on all discretionary projects in the city.

Mitigation Measures

MM V-1 If cultural resources/historic, archaeological, and paleontological resources (i.e., prehistoric sites, historic sites, and isolated artifacts) are discovered during grading or construction activities on the project site, work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history shall be retained to determine the significance of the discovery.

The City shall consider mitigation recommendations presented by a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history for any unanticipated discoveries. The City and project applicant shall consult and agree upon implementation of a measure or measures that the City deems feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project proponent shall be required to implement any mitigation necessary for the protection of cultural resources.

Timing/Implementation: ~~*As a condition of project approval and*~~ *This measure shall be implemented during* ~~*ground-disturbing activities*~~ *all phases of the project and shall be included as a note on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove Development Services, Planning Department*

MM V-2 If, during the course of implementing actions under the New Parish Church project, human remains are discovered, all work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and the County Coroner must be notified according to Section 5097.98 of the State PRC and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.

Timing/Implementation: ~~*As a condition of project approval and*~~ *This measure shall be implemented during* ~~*ground-disturbing activities*~~ *all phases of the project and shall be included as a note on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

Because no cultural resources were identified on the project site, and because mitigation measures **MM V-1** and **MM V-2** above would protect cultural resources and/or human remains in the event of an unanticipated discovery during construction activities, impacts to cultural resources and human remains are considered less than significant with mitigation incorporated.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☒	☐	☐

The discussion of geology and soils is based in part on the *Geotechnical Investigation Elk Grove Parish church, Bradshaw Road, APN 3 121-022-008* prepared by Neil O. Anderson and Associates, July 19, 2007. The Investigation is included as **Appendix D** of this document.

DISCUSSION/CONCLUSION/MITIGATION:

a) i) ***Less than Significant Impact.*** The City of Elk Grove General Plan DEIR identified geologic and soil conditions within the City of Elk Grove Planning Area, which includes the proposed project site and did not identify any active or potentially active faults in the vicinity of the city (City of Elk Grove, 2003b). Faults are categorized by the United States Geological Survey (USGS) as Classes A through D based on demonstrable evidence of tectonic movement during the Quaternary period (known or presumed to be associated with large magnitude earthquakes) (USGS, 2008a). Class A faults are associated with geologic evidence that demonstrates the existence of a Quaternary fault of tectonic origin while Class D faults are associated with geologic evidence that demonstrates that the feature is not a tectonic fault or feature. Class B faults are associated with geologic

evidence that demonstrates the existence of Quaternary deformation, but either (1) the fault might not extend deeply enough to be a potential source of significant earthquakes, or (2) the currently available geologic evidence is too strong to confidently assign the feature to Class C but not strong enough to assign it to Class A. Class C faults are associated with geologic evidence that is insufficient to demonstrate (1) the existence of tectonic faulting, or (2) Quaternary slip or deformation associated with the feature (USGS, 2008a). The closest active fault to the project site is the Class C Foothills Fault, located approximately 17.46 miles from the project site (Anderson, 2007a). The closest Class B fault is the Concord-Green Valley Fault, located approximately 45.48 miles from the project site. In addition, the City of Elk Grove is not located within an Alquist-Priolo Earthquake Fault Zone and surface evidence of faulting has not been observed (City of Elk Grove, 2003a). Due to the fact that there are no active faults in the vicinity of the project site and the City of Elk Grove is not located within an Alquist-Priolo Earthquake Fault Zone, impacts associated with rupture of a known earthquake fault are considered less than significant.

a) ii) ***Less than Significant Impact.*** *As discussed under item* ***a) i)*** *above, the proposed project* site is not located in the vicinity of any active faults. In addition, the City of Elk Grove is not located within an Alquist-Priolo Earthquake Fault Zone and surface evidence of faulting has not been observed (City of Elk Grove, 2003a). However, the General Plan DEIR identified that, due to the proximity to the San Andreas Fault Zone and other active faults such as those discussed under **a) i)** above, the City of Elk Grove may experience non-catastrophic ground shaking during a seismic event (City of Elk Grove, 2003b). Peak acceleration is defined as the maximum acceleration experienced by a particle during the course of the earthquake motion (USGS, 2008a). The California Geological Survey (CGS) assigns a probabilistic (10 percent probability of exceeding that motion in a 50-year period) peak horizontal ground acceleration for surface soil at the project site of 0.186g based on longitude and latitude coordinates. This is considered to be relatively low ground acceleration (Anderson, 2007a).

The City of Elk Grove has adopted the Uniform Building Code (UBC) and all buildings constructed in the city, including the proposed church, school and multi-purpose building, must conform to UBC seismic design parameters for Seismic Zone 3. The UBC includes special design requirements for building and foundation stress capabilities, masonry and concrete reinforcement, and building spacing to accommodate moderate earthquake shaking. The UBC design requirements reduce impacts associated with seismic groundshaking by preparing structures to accommodate moderate earthquake-related ground movement. Compliance with UBC seismic design parameters would ensure that impacts resulting from seismic groundshaking at the project site would be less than significant.

a) iii) ***Less than Significant Impact.*** Liquefaction occurs when loose sand and silt that is saturated with water is shaken by an earthquake and consequently behaves like a liquid. The USGS explains that earthquake waves can cause water pressures to increase in sediment and sand grains to lose contact with each other, thus causing the sediment to liquefy and lose the ability to support structures. Liquefaction can cause damage to buildings, roads and pipelines (USGS, 2008b). When making a determination regarding the potential for liquefaction, soil types and density, the groundwater table, and the duration and intensity of potential ground shaking must be considered (City of Elk Grove, 2003a). Given the known soil, groundwater, and ground shaking conditions, the potential for liquefaction beneath the City of Elk Grove is considered to be low. The Geotechnical Investigation conducted for the project site by Neil O. Anderson and

Associates in July 2007 indicated that, due to the relatively low ground acceleration and dense soil conditions on the site, the potential for seismically-induced surface distress such as liquefaction is considered low. In addition, no groundwater was found in test borings conducted at the site. This characteristic suggests that the project site is consistent with the Background Report's assessment of low liquefaction potential in the city. Therefore, impacts associated with seismic-related ground failure, including liquefaction, are considered less than significant.

a) iv) ***Less than Significant Impact.*** The proposed project site is topographically flat; therefore the likelihood of landslides is minimal. Furthermore, the City of Elk Grove General Plan Background Report confirms that there is little potential for landslides to occur anywhere in the city as there are no major slopes in the area. The maximum land surface slope within the city is 3 percent (City of Elk Grove, 2003a). Therefore, impacts from landslides are expected to be less than significant.

b) ***Less Than Significant Impact.*** Construction on the project site would result in the moving and grading of topsoil, which would lead to disturbed soils that are more likely to suffer from erosion from a variety of sources, such as wind and water. The soils on the project site are composed of San Joaquin silt loam, 0 to 1 percent slopes (Anderson, 2007b). The San Joaquin silt loam soils have only a "slight" potential for erosion (NRCS, 2008). The City of Elk Grove General Plan DEIR (SCH# 2002062082) identified that implementation of the General Plan would result in less than significant impacts associated with increased soil, wind, and water erosion, due to minor or major grading over large areas of land. Furthermore, the proposed project would be subject to the City's Land Grading and Erosion Control Ordinance (Title 16 Chapter 16.44 of the City of Elk Grove Municipal Code), which establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other pollutant runoff. Erosion control measures that could be implemented include seeding, mulching, vegetative buffer strips, sod, plastic covering, burlap covering, watering and any other measures which control the movement of the ground surface or soil. Compliance with the City's Land Grading and Erosion Control Ordinance would ensure that impacts associated with erosion would be less than significant.

c-d) ***Less Than Significant with Mitigation Incorporated.*** Loose soils can result in unstable soil conditions, causing landslides, lateral spreading, liquefaction, subsidence or collapse. The Geotechnical Investigation conducted for the project site by Neil O. Anderson and Associates in July 2007 indicated that, from a soil engineering standpoint, the soils on the project site are dense and are suitable for construction of the proposed structures. The investigation also indicated that the soil on the project site has low expansion potential (Anderson, 2007a). However, the Geotechnical Investigation conducted for the project site provided recommendations that should be incorporated into the project design and construction in order to reduce the potential problems associated with unstable soils. Therefore, the proposed project would result in less than significant impacts associated with expansive and/or unstable soils with the following mitigation.

Mitigation Measures

MM VI-1 The house, barn, and other structures located on the northeast portion of the site shall be demolished to accommodate the proposed construction. Following demolition, the concrete slab floors, footing foundations, exterior concrete flatwork and pavement sections shall be completely removed. Any

loose soil shall be removed and the resulting excavations shall be scarified to a depth of 8inches, moisture conditioned to at least 2 percent above optimum moisture content, and compacted to at least 90 percent of maximum density as determined by ASTM D1557, modified proctor density.

Timing/Implementation: *As a condition of project building permit approval/during demolition and site preparation and shall be included as a note on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-2 Any underground utilities shall be abandoned. Utilities smaller than 4 inches in diameter may be left in place. Utilities larger than 4 inches in diameter shall be removed, ground solid, or crushed in place and back-filled.

Timing/Implementation: *As a condition of project grading and improvement plan approval/during site preparation and shall be included as a note on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-3 Existing water wells, septic tanks and leach lines shall be removed and/or capped in accordance with the Sacramento County Department of Environmental Management Department rules and regulations.

Timing/Implementation: *As a condition of project grading, improvement or building permit approval/during site preparation and shall be included as a note on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-4 All existing wells not in use or proposed to be continued for use (e.g., well for fire protection), shall be abandoned in accordance with Sacramento County requirements. After clearing operations and any cuts have been made, the exposed subgrade shall be scarified a minimum of 8 inches and compacted as indicated in Appendix A of the Geotechnical Investigation included as **Appendix D** of this document. Fill placed on building pads and in pavement areas shall be non-expansive and placed as engineered fill as recommended in Appendix A of the Geotechnical Investigation. Soils encountered on the site shall be suitable as engineered fill.

Timing/Implementation: *As a condition of project grading, improvement or building permit approval/during site preparation and shall be included as a note on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-5 During stump removal, all roots greater than ½ inch in diameter shall be grubbed out. Voids resulting from concrete, asphalt, stump and root or utility removal shall be cleaned out of all loose soil and debris and then scarified, moisture conditioned, and re-compacted as specified in Appendix A of the Geotechnical Investigation (included as **Appendix D** of this document). Voids shall be backfilled with engineered fill as specified in Appendix A.

Timing/Implementation: *As a condition of project grading, improvement or building permit approval/during site preparation and shall be included as a note on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-6 The presence of cohesive soils on the project site shall be taken into consideration when planning the site construction schedule to avoid site grading during wet conditions.

Timing/Implementation: *As a condition of project grading, improvement or building permit approval/during site preparation and shall be included as a note on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-7 If grading is accomplished as specified, foundations for the proposed buildings shall consist of shallow, spread or continuous foundations bearing on compacted native soil, engineered fill, or a combination of both. Foundations shall be designed using a bearing capacity of 2,000 pounds per square foot (psf) for dead plus live loads. If a higher bearing capacity is desired, foundations shall be carried to the underlying hardpan or supported on a minimum 2 feet of engineered fill. The engineered fill may consist of either lean mix concrete (2 sack mix) or over-excavated and compacted soil as specified in Appendix A of the Geotechnical Investigation (**Appendix D** of this document). With the foundations supported on either hardpan or a minimum 2 feet of engineered fill, a bearing capacity of 3,000 psf for dead and live loads shall be used in design. The above bearing capacities shall be increased by one-third for temporary wind and seismic loads.

Timing/Implementation: *~~As a condition of project approval~~Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-8 The minimum width of all foundations shall be 12 inches. Foundations shall be embedded a minimum depth of 19 inches bellow surrounding grade.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-9 Potential settlement, either immediate or long term, of foundations constructed on compacted native soils and loaded in the matter described above, shall be less than 1 inch total and ½ inch differential across the width of the buildings. Care shall be taken to understand settlements may vary based on actual loads and footing sizes.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-10 To ensure footings have adequate support, special care shall be taken when footings are located adjacent to trenches. The bottom of such footing shall be at least 1 foot below an imaginary plane with an inclination of 1.5 horizontal to 1.0 vertical extending upward from the nearest bottom edge of the adjacent trench.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-11 Lateral resistance for spread footing shall be provided by assuming a passive pressure acting against the side of the footing equal to 300 pounds per cubic foot (pcf) equivalent fluid pressure. Later resistance shall be provided by computing friction between the bottom of the footing and the soil. A coefficient of friction of 0.30 shall be utilized. If footings are cast against the firm native soil, passive and frictional resistance shall be combined but the passive resistance shall be reduced by 50 percent. A monitor shall observe the completed footing excavation to verify that suitable bearing material has been encountered.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-12 Moisture transmission through concrete slab-on-grade floors shall be protected by placing a capillary break and a vapor retarder beneath the slab.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-13 There are additional measures that may be incorporated to further reduce, but not eliminate the rise. Some (but not all) of these measures include using concrete with a water-cement ratio less than 0.45, employing a qualified testing laboratory to provide materials testing and quality control during concrete placement and curing, using topical concrete sealers, installing water stops at cold joints between the foundation and slab on grade, sealing the vapor retarder where plumbing penetrations occur, limiting the use of vinyl and wood flooring, and testing the concrete slab for moisture transmission rates immediately prior to replacement of floor coverings. These measures shall be considered if additional protection is desired.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-14 The upper 12 inches of all building pads shall be scarified and compacted as engineered fill. Four inches of clean ¾ inch gravel shall be placed beneath the slabs on grade. The gravel shall be covered by an impervious vapor retarder such as 10 mil sheet vinyl or equivalent. The vapor retarder shall be continuous and lapped a minimum of 2 feet and draped down the side of the footings at least 1 foot. The vapor retarder shall be covered by 2 inches of sand to protect it during construction and to aid in curing the concrete. This sand shall meet the requirement of ACI 302.1R. Sand shall be sand or silty sand containing no more than 20 percent passing the No. 200 sieve. Alternative materials must be approved by the geotechnical engineer prior to being brought to the site.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-15 The sand shall be moist but not saturated at the time of concrete placement. If the sand is saturated or free water is visible, the concrete shall not be placed until the sand is dried sufficiently to only be moist or is replaced. If construction takes place in winter, sand shall be substituted for 3/8-inch pea gravel. The pea gravel may not be saturated. Free water must not be visible on the gravel. If the gravel is saturated, it must be dried sufficiently to only be moist or be replaced prior to placement of concrete. Exterior finish grades shall be below the floor subgrade level unless special drainage and waterproofing features are employed to reduce the potential for moisture migration under the slab.

Timing/Implementation: *As a condition of project building permit approval/during construction and shall be noted on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-16 Site retaining walls shall be constructed. Retaining walls shall be subject to lateral earth pressures.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-17 A calculated at-rest earth pressure of 50 pcf equivalent fluid density shall be used for retaining walls which are restrained from rotating at the top. A calculated active earth pressure of 40 pcf equivalent fluid density shall be used for site retaining walls which are allowed to rotate at the top. The above active earth pressure assumes the retaining wall will support a backslope no steeper that 5:1 (H:V). Backfill will come from onsite soils. Footings shall be designed for lateral load resistance with a passive earth pressure of 300 pcf. The hydrostatic pressure on the retaining walls shall be relieved using drains behind the walls connected to tight lines.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-18 Special care shall be taken to ensure adequate drainage is provided throughout the life of the structures. Appropriate downspout extensions from roof drainage shall fall on splash blocks a minimum of 2 feet from the structure or be connected to tight lines that drain away from the buildings. Any flatwork adjacent to buildings shall slope a minimum of 1 percent for a distance of 5 feet. Exposed exterior subgrade (soil or non-paved areas) shall slope away from the structures at a minimum slope of ½ inch per foot for a distance of 8 to 10 feet beyond the building perimeters. If this grade is unable to be obtained, proper drainage inlets will need to be placed to carry surface water away from the foundations.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-19 Care shall be taken to ensure that landscaping is not excessively irrigated and to ensure that landscaping drains away from the structures. Implementation of adequate drainage for this project can effect the surrounding developments. In addition to designing and constructing drainage for the site, the affects of site drainage must be taken into consideration for surrounding sites.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit and/or improvements/landscape plans/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-20 Neil O. Anderson and Associates shall review completed foundation and grading plans to verify that the recommendations of the Geotechnical Investigation have been properly interpreted and incorporated. Neil O. Anderson and Associates shall also be retained by the applicant to perform recommended grading observations, compaction testing, and foundation excavation inspections.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of building permit/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-21 Pavement design sections shall be as follows:

FLEXIBLE PAVEMENT SECTION DESIGN

Subgrade R-Value	Traffic Index	Traffic	Pavement Section, inches	
			Asphalt Concrete	Aggregate Base
25	3.5	Auto Parking	2.0	4.5
25	5.0	Auto Drives	2.5	7.5
25	6.0	Truck Drives/Fire Lanes	3.0	9.5

Concrete pavement sections have been designed utilizing the Portland Cement Associations manual Thickness Design for Concrete Highway and Street Pavements. Design is based on a 20-year pavement life. The rigid pavement sections are as follows:

RIGID (CONCRETE) PAVEMENT SECTION DESIGN

Subgrade Strength	Traffic Pattern	Concrete Pavement	Pavement Section, inches	
			Compressive Strength, psi	Aggregate Base
Medium	13 trucks per day	6.5	2,500	4.0
Medium	6 trucks per day	6.0	2,500	4.0

The paving materials must conform to the requirements of the State of California, Department of Transportation, Standard Specifications, latest edition. Type B asphalt concrete and class 2 aggregate base shall be used. The subgrade shall have a minimum R-value of 25. The pavement area shall be stripped of all organic matter, loose soil, etc., and any required cuts or fills shall be made. A minimum of 8 inches of compacted subgrade shall be provided beneath the pavement sections. The subgrade

shall be compacted to dry densities in excess of 95 percent of the maximum dry density obtainable by the ASTM D1557 test method.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of improvement plans/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-~~21~~22 Landscaped and irrigated planters that are constructed adjacent to pavement shall have cut-off curbing constructed around them that extends a minimum of 4 inches into the subgrade soil.

Timing/Implementation: *As a condition of project building permit approval/during construction and shall be noted on all project construction plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-~~22~~23 Soils encountered in test holes classify as Type C soils. A maximum slope of 1.5:1 (horizontal to vertical) maximum slope shall be required for excavations less than 20 feet deep. The contractor shall have a competent person identify all soils encountered in excavation and refer to OSHA and Cal-OSHA standards to determine appropriate methods to protect individuals working in excavations.

Timing/Implementation: ~~*As a condition of project approval*~~*Prior to issuance of improvement plans/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-~~23~~24 Backfill placed in trenches shall be placed in approximately 8-inch lifts in uncompacted thickness.

Timing/Implementation: *Prior to the issuance of building permits/during site preparation*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

Implementation of the above mitigation measures would ensure that soils at the proposed project site would be capable of supporting the structures proposed by the project and would therefore reduce impacts resulting from unstable soils to a less than significant level.

e) ***Less Than Significant with Mitigation Incorporated.*** The proposed project includes construction of a new septic system. An Onsite Waste Water Disposal System Feasibility Study was conducted for the project site by Neil O. Anderson and Associates in October of 2007 (Anderson, 2007b). The study indicated that, from a soil standpoint, the project

site appears to be suitable for onsite wastewater disposal. Specifically, the soils on the project site are composed of San Joaquin silt loam, 0 to 1 percent slopes, which are moderately deep and moderately well drained (Anderson, 2007b, page 3). Percolation tests conducted as part of the Feasibility Study indicated relatively high permeability of the deeper soils. The depths tested for a deep trench disposal field indicated relatively slow to moderate rates. The Feasibility Study concluded that either a deep trench or deep pit disposal field would be suitable on the site, provided there would be enough room to accommodate these systems (Anderson, 2007b, page 10).

Mitigation Measure

MM VI-~~24~~25 Design calculations for both a deep trench and deep pit disposal field shall be included in the project design to ensure that the on-site soils are capable of adequately supporting the proposed septic system.

Timing/Implementation: *As a condition of approval/during project construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-~~25~~26 The onsite septic system constructed on the project site shall consist of either a deep trench or a deep pit disposal field as specified in the Onsite Waste Water Disposal System Feasibility Study conducted for the project site by Neil O. Anderson and Associates (dated October 5, 2007).

Timing/Implementation: *As a condition of approval/during project construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VI-~~26~~27 All recommendations, design criteria, and specifications set forth in the "Onsite Waste Water Disposal System Feasibility Study" conducted for the project site by Neil O. Anderson and Associates (dated October 5, 2007, pages 5 - 9) shall be followed, including but not limited to those regarding:

- loading rate;
- required side wall area of deep trench;
- required length of deep trench;
- additional Sacramento County design criteria; and
- required tank size and disposal area.

Timing/Implementation: *As a condition of approval/during project construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

Implementation of the above mitigation measures would ensure that soils at the proposed project site would adequately support the septic system proposed by the project. Therefore, impacts would be reduced to a less than significant level.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

DISCUSSION/CONCLUSION/MITIGATION:

The discussion in this section is based in part on the Phase I Environmental Site Assessment – Residential Property, 8800 Bradshaw Road, Elk Grove, CA, prepared by Versar (November 8, 2005) and the Asbestos Survey Report prepared by ESS Environmental (July 29, 2007). The Phase I and survey are included in **Appendix E** of this document.

a-c) ***Less than Significant with Mitigation Incorporated.***

Site Operation

The proposed project includes construction and operation of a parish church, offices, a multi-purpose building, a rectory, and a K-8 school. Operation of these types of land uses

is generally not associated with the routine transport, use, or disposal of hazardous materials. The project does not propose to transport, use, or dispose of hazardous materials. Therefore, operation of the proposed project does not have the potential to create a significant hazard through the routine transport, use, or disposal of hazardous materials; create a significant hazard through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; or emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Site Development/Construction

Implementation of the proposed project would result in demolition of the existing structures on the project site, as well as site grading and ground-disturbing site preparation activities. A Phase I Environmental Site Assessment was conducted for the project site, and the assessment identified several potential hazards associated with site development (Versar, 2005).

The Phase I Environmental Assessment noted that the structures on the site could potentially contain asbestos-containing building materials (ACBM). The structures are estimated to be between 40 and 60+ years old. Asbestos was commonly used as an acoustic insulator, thermal insulation, fire proofing and in other building materials between 1930 and 1981. Exposure to airborne asbestos may result in a potential health risk because persons breathing the air may breathe in asbestos fibers. Continued exposure can increase the amount of fibers that remain in the lung that over time may cause serious lung diseases including asbestosis, lung cancer, or mesothelioma (USEPA, 2008). The presence of asbestos in a building does not necessarily endanger the health of building occupants. As long as ACBMs remain in good condition and are not disturbed or damaged, exposure is unlikely. However, damaged, deteriorated, or disturbed asbestos-containing materials can lead to fiber release (exposure), and unauthorized removal or disturbance of asbestos materials could result in adverse health effects. The Asbestos Survey conducted by ESS Environmental (June 25, 2007) for the proposed project tested samples taken from all of the structures on the site. Two of the samples taken tested positive for asbestos, including friable Regulated Asbestos-Containing Materials (RACM) in the yellow linoleum flooring in the main house kitchen and Category I non-friable in the blue/grey vinyl floor tile in the main house laundry room (ESS Environmental, 2007). Demolition activities would disturb these ACBM and could expose demolition workers to airborne asbestos, which is considered to be a health threat when inhaled. Therefore, mitigation is necessary to ensure that demolition activities do not expose workers to airborne asbestos.

It was also noted in the Phase I Environmental Assessment that, based on the age of the structures on the project site, the structures and soil at the foot of the structures could contain lead-based paint (LBP) or lead contamination (Versar, 2005, page 4-4). Lead is a toxic metal that was used for many years in products found in and around residential homes. Many homes built before 1978 have lead-based paint and soil can pick up lead from exterior paint or other sources. The most common sources of lead poisoning are deteriorating lead-based paint, lead contaminated dust, and lead contaminated residential soil. Similarly to asbestos, lead-based paint that is in good condition is usually not a hazard. However demolition can create hazardous lead dust and chips by disturbing lead-based paint (USEPA 2008). Mitigation is necessary to ensure that demolition activities do not expose workers to lead.

Furthermore, the Phase I Environmental Assessment identified that the site was previously used for dry-land farming fields of wheat grass and hay. Dry-land farming is the practice of growing a crop without irrigation. Many dry-land farming fields are not treated with pesticides or infrequently treated, since the lack of water does not provide a desirable habitat for most agricultural pests. However, some production crops, such as winter wheat and barley, can be grown under dry-land farming conditions (DTSC, 2008b). These dry-land farming production crops can involve irrigation and the application of pesticides. The previous use of the site for wheat grass and hay fields indicates the potential for residual organochlorine pesticides, such as DDT and hexachlorobenzene, to be present in project site soils. In addition, copper and copper-based compounds could have been applied to the orchards on the site. Mitigation is necessary to ensure that residual pesticides are not present on the project site.

Also noted on the site were various debris piles, a 55-gallon diesel drum and an existing septic system, as well as existing water and irrigation wells. These items could result in hazardous conditions during site development if not properly removed from the site.

Mitigation Measures

Implement mitigation measure MM VI-3 as identified in the Geology and Soils in addition to the following measures.

MM VII-1 The Category 1 non-friable vinyl floor tile and the friable RACM sheet vinyl flooring identified in the main house on the project site (as identified in the Asbestos Survey conducted by ESS Environmental dated June 29, 2007) shall be properly abated and disposed of by a certified, licensed, and insured asbestos abatement contractor prior to demolition activities. The contractor shall perform in full compliance with all local, state, and federal regulations. The contractor shall also fully comply with notification requirements to the California Division of Occupational Safety and Health (Cal-OSHA) and the Sacramento Metropolitan Air Quality Management District (SMAQMD).

Timing/Implementation: *Prior to the proposed demolition activities*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VII-2 A licensed lead abatement contractor shall conduct a survey to determine the presence or absence of lead-based paint or lead-contaminated soils on the project site. All recommendations, abatement measures, and specifications set forth in the survey shall be followed.

Timing/Implementation: *Prior to the proposed demolition activities*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VII-3 The applicant shall assess the property for the potential presence of pesticides due to previous agricultural activities on the project site, soil samples shall be collected for analysis of organochlorine pesticides. The sampling and analysis strategies shall be based on recommendations presented in the California Department of Toxic Substances Control's April 2008 *Interim Guidance for Sampling Agricultural Fields (3rd Revision)* and the June 2006 *Interim*

Guidance Evaluation of School Sites with Potential Soil Contamination as a Result Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides and Polychlorinated Biphenyls from Electrical Transformers.

Timing/Implementation: *Prior to ~~the proposed construction activities~~ any site disturbance, such as clearing or grubbing, or issuance of any permits for grading, building, or other site improvements, whichever occurs first*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VII-4 The debris piles on the project site shall be collected for appropriate disposal prior to development on the project site. Environmental oversight shall be provided during site grading activities for unidentified waste pits.

Timing/Implementation: *Prior to and during the proposed construction activities and shall be noted on all project construction plans.*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

MM VII-5 The 55-gallon diesel drum on the project site shall be stored properly with secondary containment.

Timing/Implementation: *Prior to the proposed construction activities and shall be noted on all project construction plans.*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

Operation of the proposed project does not have the potential to create a significant hazard through the routine transport, use, or disposal of hazardous materials; create a significant hazard through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; or emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Implementation of the above mitigation measures would ensure that demolition and construction activities would not result in the release of hazardous materials into the environment. Therefore, impacts associated with the routine transport, use, or disposal of hazardous materials, the accidental release of hazardous materials into the environment, or hazardous emissions within one-quarter mile of an existing or proposed school would be mitigated to a less than significant level.

d) ***Less than Significant with Mitigation Incorporated.*** A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. The Phase I Environmental Site Assessment conducted for the project site included a database search consistent with ASTM standard E1527-00 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process) (Versar, 2005). In addition, local files for the project site from the Regional Water Quality Control Board, Department

of Toxic Substances Control, were reviewed. The proposed project site was not listed on any federal or state databases that document hazardous material sites. The proposed project site is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. In addition, all facilities listed on the databases were either a significant distance from the project site with respect to groundwater flow direction or the chemicals of concern or site status such that recognized environmental conditions which could adversely impact the project site were not identified.

However, underground storage tanks (UST) used for the storage of heating oil for consumptive use on the premises are excluded from federal and California state UST regulations (USEPA, 2008). Based on the age of the structures on the project site, there is the potential for an unknown heating oil UST to exist on the site.

Mitigation Measures

MM VII-~~7~~6 A geophysical survey shall be conducted to determine the presence or absence of a UST on the project site. All recommendations and specifications set forth in the survey shall be followed to the extent those recommendations do not conflict with the requirements set forth in the regulations governing UST detection and remediation.

Timing/Implementation: *Prior to ~~the proposed construction activities~~ issuance of any permits for grading, building, or other improvements, whichever occurs first*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

Implementation of the above mitigation measure would ensure that any unknown USTs on the project site would be identified and would not create a significant hazard to the public or the environment. Therefore, impacts associated with hazardous material sites compiled pursuant to Government Code Section 65962.5 would be reduced to a less than significant level.

e-f) ***No Impact.*** Airport-related hazards are generally associated with aircraft accidents, particularly during takeoffs and landings. Airport operation hazards include incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that surround an airport (City of Elk Grove, 2003b). There are no public or private airstrips in the vicinity of the project site. The closest airport is the Elk Grove Airport/Sunset Sky Ranch, located approximately 3.28 miles south of the project site. The proposed project site is not located within the clear, approach/departure and/or overflight zones for the Elk Grove Airport/Sunset Sky Ranch (City of Elk Grove, 2003b). Therefore, no hazards associated with public or private airports or airstrips would occur.

g) ***Less than Significant Impact.*** The Sacramento County Multi-Hazard Mitigation Plan (SCMMP) is a multi-jurisdictional plan that covers the City of Elk Grove, along with other incorporated communities and additional special districts and organizations within Sacramento County. The plan identifies goals, objectives and measures for hazard mitigation and risk reduction to make communities less vulnerable and more disaster resistant and sustainable (AMEC, 2004). The SCMMP inventories existing administrative capabilities within the City of Elk Grove that can result in the mitigation of natural hazards and identifies that the City's General Plan and Zoning ordinances and building codes

address flooding and seismic hazards. The SCMMP also makes community-specific recommendations for natural hazard mitigation. These include multi-hazard public education, development of an Emergency Operations Center, developing and adopting a pre-disaster ordinance for post-disaster recovery and reconstruction, achieving Storm-Ready certification by the National Weather Service, and promoting the purchase of flood insurance by the owners of structures within the mapped 100-year floodplain (AMEC, 2004). Implementation of the proposed project consists of construction of a church as well as an associated multi-purpose building and school, which would not impair implementation of the SCMMP.

Additionally, the Area Plan for Emergency Response to Hazardous Material Incidents in Sacramento County, or the Sacramento County Area Plan (SCAP), describes the responsibilities of local, state and federal agencies during incidents involving the release and/or threatened release of hazardous materials. The SCAP covers pre-hazard planning, emergency response procedures, notification/coordination, emergency response supplies and equipment, personnel training, and incident critique and follow-up (Sacramento County EMD, 2007). As the proposed project would not result in the use, transport, storage, or disposal of hazardous materials, implementation of the project is not anticipated to affect implementation of the SCAP.

As the proposed project is not anticipated to impair implementation of either the SCMMP or the SCAP, impacts to adopted emergency response plans would be considered less than significant.

h) ***Less Than Significant Impact.*** The California Department of Forestry and Fire Protection, Natural Hazard Disclosure (CalFire) map shows that the proposed project site and surrounding area does not contain any land designated as Wildland Area That May Contain Substantial Forest Fire Risks and Hazards or as a Very High Fire Hazard Severity Zone – AB 337 (CalFire, 2000). Therefore, less than significant wildland fire impacts would occur.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) 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)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) 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?	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami or mudflow?	☐	☐	☐	☒

DISCUSSION/CONCLUSION/MITIGATION:

a) & f) ***Less Than Significant with Mitigation Incorporated.*** Implementation of the proposed project would result in increased impervious surfaces on the project site and therefore could result in an increase in urban pollutant sources. Urban runoff typically consists of oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals) and other household pollutants. Precipitation during the early portion of the wet season (November to April) displaces such pollutants into the stormwater runoff, resulting in high pollutant concentrations being discharged to nearby waterways.

In addition, soil disturbance associated with construction activities could release pollutants to nearby waterways and the refueling and parking of construction equipment/vehicles onsite could result in spills of oil, grease, or related pollutants that could eventually discharge into water resources in the project vicinity. Improper handling, storage, disposal of fuels and materials, or improper cleaning of machinery could also cause water quality degradation. In addition, the proposed project would utilize an individual septic system that could also contribute to groundwater quality impacts in the event of an overflow or spill.

The City of Elk Grove General Plan DEIR (SCH# 2002062082) identified that implementation of the General Plan would result in less than significant construction-related and operational impacts to water quality. The General Plan DEIR also identified that potential septic system impacts resulting from implementation of the General Plan would be less than significant. Therefore, water quality impacts resulting from development consistent with the General Plan, such as the proposed project, were disclosed and addressed in the General Plan DEIR.

The proposed project would also be subject to the requirements of the National Pollution Discharge Elimination System (NPDES) Stormwater Permit No. CA0082597, renewed in December 2002, enforced by the Regional Water Quality Control Board (RWQCB). The permit requires that the City impose water quality and watershed protection measures for all development projects and prohibits discharges from causing violations of applicable water quality standards or from resulting in conditions that create a nuisance or water quality impairment in receiving waters. A key component of the NPDES permit is the implementation of the Stormwater Quality Improvement Plan (SQIP) for the City, which includes a new development element requiring stormwater quality treatment and/or best management practices (BMPs) in project design for both construction and operation for new development. BMPs for a project are required to be specified in a Stormwater Pollution Prevention Plan (SWPPP).

Mitigation Measures

MM VIII-1 Prior to the issuance of grading permits, the project applicant shall prepare a Stormwater Pollution and Prevention Plan (SWPPP) to be administered through all phases of grading and project construction. The SWPPP shall incorporate best management practices (BMPs) which describe the site, erosion and sediment controls, means of waste disposal, control of post-construction sediment and erosion control measures and maintenance responsibilities, water quality monitoring and reporting during storm events (which will be responsibility of the project applicant), corrective actions for identified water quality problems and non-stormwater management controls. The SWPPP shall address spill prevention and include a countermeasure plan describing measures to ensure proper collection and disposal of all pollutants handled or produced on the site during construction, including sanitary wastes, cement, and petroleum products. The measures included in the SWPPP shall ensure compliance with applicable regional, state and federal water quality standards. These measures shall be consistent with the City's Drainage Manual and Land Grading and Erosion Control Ordinance which may include (1) restricting grading to the dry season; (2) protecting all finished graded slopes from erosion using such techniques as erosion control matting and hydroseeding; (3) protecting downstream storm drainage facilities from sedimentation; (4) use of silt fencing and hay bales to retain sediment on the

project site; (5) use of temporary water conveyance and water diversion structures to eliminate runoff; and (6) any other suitable measures. The SWPPP shall be submitted to the City for review. The applicant shall require all construction contractors to retain a copy of the approved SWPPP on each construction site.

Timing/Implementation: *Prior to issuance of grading permits*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works ~~Planning~~ Department*

MM VIII-2 The project shall implement specific best management practices (BMPs) to ensure that long-term water quality is protected. The BMPs shall be designed, constructed, and maintained to meet a performance standard established by the City and shall conform to the provisions of the City's NPDES permit. BMPs may include, but are not limited to: scheduling or limiting construction activities to certain times of year, prohibitions of practices, maintenance procedures, installation of silt fences, hydroseeding, hydraulic mulch, soil binders, straw mulch, fiber rolls, earthen dikes and drainage swales, velocity dissipation devices, sediment traps, inlet filters, tire washes and other management practices that could be used during construction of the proposed project (see California Stormwater Quality Association's *Stormwater Best Management Practices Handbook for Construction).*

The project applicant shall retain a qualified specialist to monitor the effectiveness of the BMPs selected. Monitoring activities, along with funding for monitoring, shall be established and shall include, but not be limited to, initial setup, annual maintenance, and annual monitoring.

Timing/Implementation: *BMPs and implementation procedures shall be submitted and approved by the City prior to issuance of grading permit; BMPs shall be implemented and monitored throughout the ~~life~~ construction of the project.*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works ~~Planning~~ Department*

MM VIII-3 Biofilter swales and vegetated strips shall be placed in the bottom of channel areas and be designed to provide biofiltration of pollutants in project runoff. The project engineer shall consult with the City when designing these areas, and the developer shall submit designs of the areas to the City for review and approval prior to approval of the improvement plans. Water quality control features shall be consistent with the City's NPDES Permit No. CAS082597.

Timing/Implementation: *Prior to approval of improvement plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works ~~Planning~~ Department*

MM VIII-4 All storage areas shall be located away from any drainage features and water quality control measures, such as grease and sediment traps and vegetative filters, shall be located in storm drainage facilities. This

requirement shall be reflected on site plans and improvement plans. Water quality control features shall be consistent with the City's NPDES Permit No. CAS082597.

Timing/Implementation: *Prior to approval of improvement plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works ~~Planning~~ Department*

MM VIII-5 The project engineer shall consult with the City when designing the proposed detention basin. The detention basin shall be designed to accommodate the 100-year storm event. The developer shall submit detention basin designs and proposed plantings for within and around the detention basin for review and approval by the City. Development of the detention basin shall be subject to BMPs identified for the project.

Timing/Implementation: *Prior to issuance of grading permits or approval of improvement plans*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works ~~Planning~~ Department*

Implementation of the above mitigation measures would ensure that control measures would be incorporated into the design of the proposed project to reduce pollution discharges in site runoff both during construction and over the life of the project. Therefore, water quality impacts would be considered less than significant.

b) ***Less than Significant Impact.*** Groundwater in the City of Elk Grove, which lies entirely within the Central Sacramento County Groundwater Basin (Central Basin), occurs in two aquifers a shallow aquifer zone known as the Laguna or Modesto Formation and an underlying deeper aquifer zone known as the Mehrten Formation. The shallow aquifer extends to approximately 200 to 300 feet below the ground surface and is typically targeted for private domestic wells such as the wells on the project site and the wells used to supply the surrounding rural residences. Development of the project site has the potential to lower the local groundwater aquifer level, resulting in a drop in the production rate of pre-existing nearby wells also utilizing the shallow aquifer.

The proposed project would receive water from two private groundwater wells on the site, one that is existing (for purposes of filing and maintaining the water tank proposed for fire services) and one well that is proposed for potable and irrigation uses. The average daily water demands of the proposed project, at buildout, would be approximately 1,754 gallons per day (gpd) for potable uses (e.g., the church, school, rectory etc.), and 65,542 gpd for landscape irrigation. Maximum demand per day, including potable and non-potable/irrigation demands would be approximately 67,296 gpd. Total annual demand would be approximately 25 acre-feet per year (afy). (Water Usage Table (June 16, 2008), (Anderson, 2009) (**Appendix F**).

Neil O. Anderson and Associates conducted a theoretical groundwater drawdown study for the proposed project. The analysis considered potential effects to other groundwater wells in the area. Based on the maximum peak pumping rate of 67,296 gpd, Anderson determined calculated drawdown as follows: at a distance of 50 feet from the new well (0.47 feet); at a distance of 100 feet from the new well (0.40 feet); at a distance of 200

feet from the new well (0.33 feet); and at a distance of 400 feet (0.26 feet). The wells of adjacent landowners are at least 200 feet or more from the proposed project site; thus, calculated drawdown during maximum periodic pumping times would be 0.33 feet or less. The proposed project therefore would not substantially deplete existing groundwater supplies nor would it interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table. The production rate of pre-existing nearby wells would not drop to levels, as a result of this project, that would preclude those wells from supporting existing land uses.

The project would also be subject to Title 14 of the City of Elk Grove Municipal Code, which defines standards and procedures for the design, installation, and management of landscaping in order to conserve water. (See Elk Grove City Zoning Code section 23.54.060.) Zoning Code section 23.54.060 requires that the irrigation systems of new development within the City be designed to avoid runoff, excessive low head drainage, or overspray. Automatic controllers shall be set to water between 7:00 p.m. and 10:00 a.m. to reduce evaporation. An irrigation schedule indicating the four seasons of watering cycles is recommended for all irrigated landscape areas and required for those projects with a total landscape area of 2,500 square feet or more. Low-volume irrigation systems with automatic controllers shall be required. Low-volume irrigation systems include low-volume sprinkler heads, dry emitters, and bubbler emitters. Therefore, impacts associated with depleting groundwater supplies would be less than significant.

c-e) ***Less than Significant with Mitigation Incorporated.*** The proposed project would result in increased impervious surfaces on the project site and would therefore substantially alter the existing drainage pattern of the site and increase surface runoff. Increased surface runoff could increase the potential for localized flooding and/or erosion both on- and offsite if allowed to exit the project area unchecked. In addition, runoff water could exceed the capacity of stormwater drainage systems and provide an additional source of polluted runoff. However, drainage infrastructure is proposed as part of the project and includes a 3-acre detention basin with an average depth of 10 feet and a capacity of 1.3 million cubic feet to accommodate a 100-year storm event.

As discussed **under a) and f)** above, the proposed project would be subject to the requirements of the NPDES Stormwater Permit No. CA0082597. Mitigation measure **MM VIII-1** requires that the applicant prepare a Stormwater Pollution and Prevention Plan (SWPPP) consistent with the NPDES Permit. The SWPPP must contain BMPs including construction and post-construction erosion and sediment controls. In addition, the project (and the BMPs included in the SWPPP) would be required to comply with the City's Grading and Erosion Control Ordinance (Chapter 44 of Title 16 of the City of Elk Grove Municipal Code). This ordinance establishes administrative procedures, standards for review, and implementation and enforcement procedures for controlling erosion, sedimentation, other pollutant runoff, and the disruption of existing drainage and related environmental damage. The ordinance requires that prior to grading activities, a detailed set of plans be developed that include measures to minimize erosion, sediment, and dust created by improvement activities. Compliance with the provisions of the NPDES Permit, BMPs, and the City's Land Grading and Erosion Control Ordinance would reduce the impacts of increased runoff resulting from altering the drainage pattern of the proposed project site.

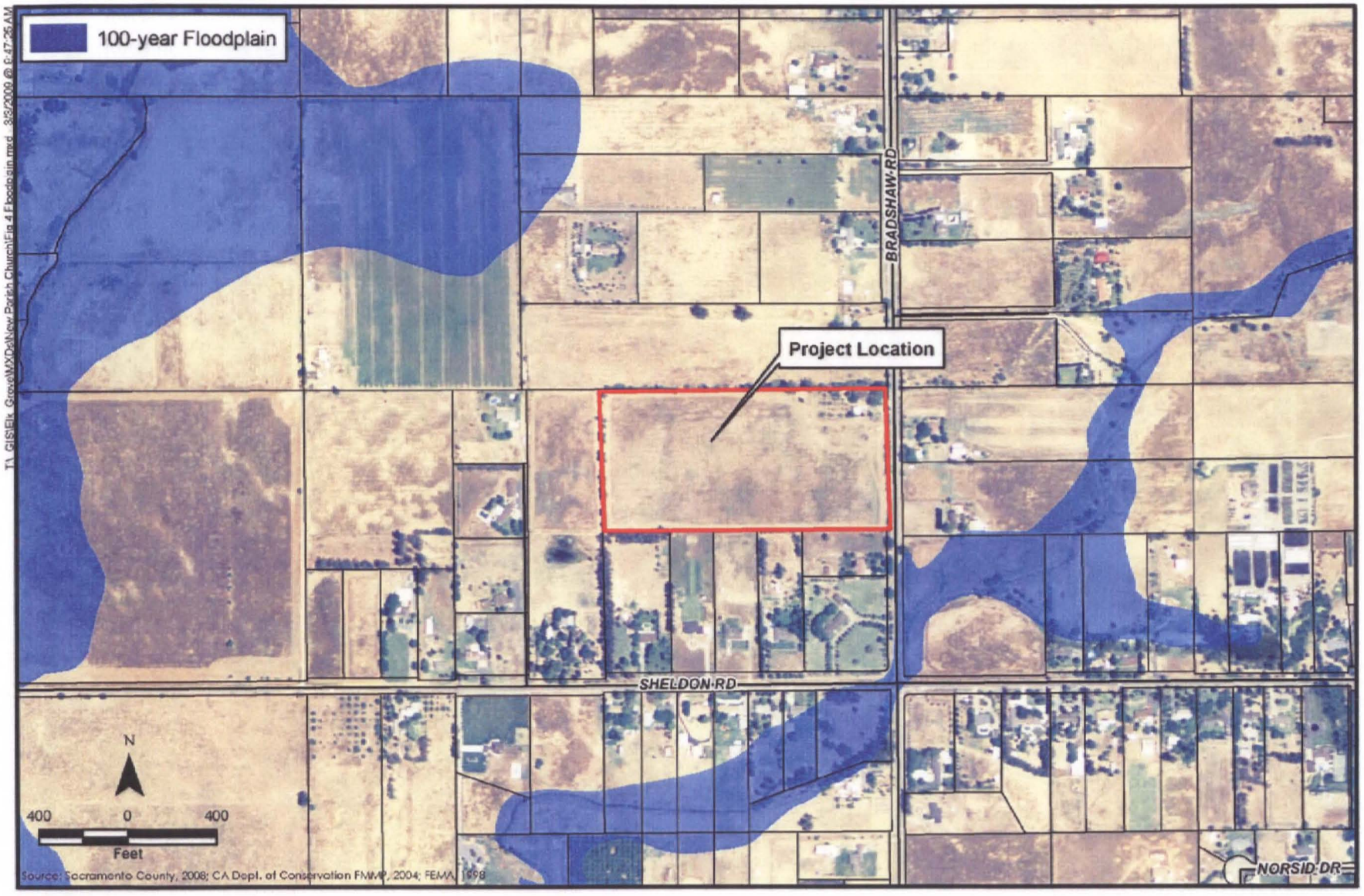
Furthermore, the City of Elk Grove General Plan DEIR (SCH# 2002062082) identified that implementation of the General Plan would result in less than significant impacts associated with increase impervious surfaces and altered drainage conditions and rates in the city.

The project would be subject to controls regarding the quality of increased runoff, as well as erosion and drainage control measures, as required by the City's NPDES Permit and the City's Land Grading and Erosion Control Ordinance. Therefore, impacts would be considered less than significant.

g-h) ***Less than Significant Impact.*** The proposed project site is not located within a 100-year floodplain (see **Figure 5**) and therefore would not place housing or structures in a 100-year floodplain and would not impede or redirect flows within a 100-year floodplain. However, the 100-year floodplain is located to the southeast, immediately adjacent to the project site. The stormwater detention basin proposed on the site would be constructed with an average depth of 10 feet and a capacity of 1.3 million cubic feet in order to accommodate a 100-year storm event. Therefore, impacts associated with the 100-year floodplain would be less than significant.

i) ***Less than Significant Impact.*** The City of Elk Grove is located outside the Folsom Dam Failure Flood Area, which is the nearest dam. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death as a result of the failure of a dam. There are no other significant water features on or in the vicinity of the project site that would pose a flooding hazard to the site. As discussed under items **g-h)** above, the proposed project site is outside of the 100-year floodplain and the detention basin onsite would be designed to further protect the site against the nearby floodplain to the southeast of the project site. Therefore, flooding impacts would be less than significant.

j) ***No Impact.*** Seiches are standing waves set up on rivers, reservoirs, ponds, and lakes, sometimes in response to seismic waves from an earthquake passing through the area. Tsunamis are giant sea waves created by the sudden uplift of the sea floor (USGS, 2008). Because the project site is not located near the ocean or any large body of water, no impacts associated with inundation by seiche or tsunami would occur. Furthermore, there are no major slopes on or in the vicinity of the project site. Therefore, no impacts associated with mudflows would occur.



City of Elk Grove
Development Services

Figure 5
Floodplain Map

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX.	**LAND USE AND PLANNING.** Would the project:				
a)	Physically divide an established community?	☐	☐	☒	☐
b)	Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

DISCUSSION/CONCLUSION/MITIGATION

a) ***Less than Significant Impact.*** The proposed project site is surrounded by rural residences and would represent a departure from the current character of the area by introducing a church with K-8 facility. While the proposed project would not divide an established community, the size of the facility and campus would be out of context with the current rural character. This impact is considered less than significant from an environmental impact standpoint under CEQA. However, from a land use and planning perspective, the City's decision making body retains discretion to approve, conditionally approve, or deny the CUP and design review permit for the project (See below).

b) ***Less than Significant Impact.*** The City of Elk Grove General Plan designates the project site as Rural Residential, and the site is zoned AR-5. The proposed project is conditionally permitted in the AR-5 zone.

The City of Elk Grove General Plan DEIR (SCH# 2002062082) identified that implementation of the General Plan would result in less than significant environmental impacts associated with conflicts with relevant land use planning documents within and adjacent to the City of Elk Grove.

The proposed project does not conflict with any applicable City land use plans that have been adopted for the purpose of avoiding or mitigating environmental effects. However, City staff feels that the project is not consistent with other non-environmentally related policies of the General Plan including the policy ensuring the rural character of the Sheldon Area (LU-18). (See Staff Report dated December 6, 2007; Section I, Aesthetics, of this Initial Study). The City's decision making body retains discretion to approve, conditionally approve, or deny the CUP and design review permit for the project. Such land use and planning policy decisions do not implicate significant environmental impacts and are outside the scope of this Mitigated Negative Declaration.

c) ***No Impact.*** The City of Elk Grove does not have an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan. Therefore, no impact would occur.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X.	**MINERAL RESOURCES.** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

DISCUSSION/CONCLUSION/MITIGATION:

a-b) ***No Impact.*** Mineral resources in Sacramento County include sand, gravel, clay, gold, silver, peat, topsoil, lignite, natural gas and petroleum. Potential sources of quality aggregate exist within Sacramento County. These potential sources lie within areas that are classified by the Surface Mining and Reclamation Act of 1975 (SMARA) Special Report 156 as MRZ-3, a classification that includes areas "containing aggregate deposits, the significance of which cannot be evaluated from available data," and include igneous rocks of volcanic origin and metamorphic rocks (Sacramento County, 2007; City of Elk Grove, 2003c). Using data contained in the SMARA Special Report 156, the City of Elk Grove was classified for its mineral resource potential and is covered by the MRZ-3 classification (City of Elk Grove, 2003c). However, no known significant mineral resource have been identified in the City of Elk Grove. Therefore, implementation of the proposed project is not expected to result in the loss of availability of a known mineral resource, or a resource delineated on a local general plan, specific plan or other land use plan. No impact would occur.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI.	**NOISE.** Would the project result in:				
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?	☐	☒	☐	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e)	For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

DISCUSSION/CONCLUSION/MITIGATION:

The analysis of noise impacts is based on the *Environmental Noise Assessment St. Maria Goretti Parish Project* prepared by j.c. brennan & associates, inc. (December 23, 2008). The entire noise assessment is included as **Appendix G** to this document.

a) ***Less than Significant with Mitigation Incorporated.*** The City of Elk Grove General Plan Noise Element establishes noise level criteria for both transportation noise sources and non-transportation (stationary) noise sources. For transportation noise sources, the Noise Element establishes a land use compatibility standard of 60 dB L_{dn} within outdoor activity areas of residential land uses and churches and 70 dB L_{dn} for playgrounds. The intent of this standard is to provide an acceptable noise environment for outdoor activities. In addition, an interior noise level standard of 45 dB L_{dn} is applied to all residential uses and 40 dB L_{eq} is applied to interior spaces of churches. The intent of this standard is to provide a suitable environment for indoor communication and sleep.

Where it is not possible (reasonable or feasible) to reduce noise in outdoor activity areas to 60 dB L_{dn} or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with the 45 dB L_{dn} standard, as shown in **Table XI-1**.

TABLE XI-1
MAXIMUM ALLOWABLE NOISE EXPOSURE
TRANSPORTATION NOISE SOURCES

Land Use	Outdoor Activity Areas[1] L_{dn}/CNEL, dB	Interior Spaces	
		L_{dn}/CNEL, dB	L_{eq}/dB[2]
Residential	60[3]	45	-
Residential subject to noise from railroad tracks, aircraft over-flights	60[3]	40[5]	-
Transient Lodging	60[4]	45	-
Hospitals, Nursing Homes	60[3]	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	60	-	40
Office Buildings	-	-	45
Schools, Libraries, Museums	-	-	45
Playgrounds, Neighborhood Parks	70	-	-

Source: City of Elk Grove General Plan. 2003c.

1. *Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.*
2. *As determined for a typical worst-case hour during periods of use.*
3. *Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.*
4. *In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.*
5. *The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.*

Table XI-2 provides the noise level performance criteria for new projects which are affected by or including non-transportation noise sources, such as those attributed to parking lots and athletic fields. These criteria are applied at the property line of noise sensitive land uses.

TABLE XI-2
EXTERIOR HOURLY NOISE LEVEL PERFORMANCE STANDARDS FOR TYPICAL STATIONARY NOISE SOURCES CITY OF ELK GROVE GENERAL PLAN NOISE ELEMENT

	Maximum Acceptable Noise Level dBA	
Noise Level Descriptor	Daytime (7 a.m. – 10 p.m.)	Nighttime (10 p.m. – 7 a.m.)
Hourly L_{eq}, dB	55	45

The standards shown in **Table XI-2** are lowered by 5 dB for noise sources which are tonal in nature, impulsive or repetitive, or which consist primarily of speech or music (e.g. humming sounds, outdoor speaker systems). Typical noise sources in this category include pile drivers, drive-through speaker boxes, punch presses, steam valves, and transformer stations.

In this analysis, the **Table XI-2** standards were applied to noise levels produced by the proposed project at the nearest residential property line.

Noise level measurements were conducted to determine typical average and maximum noise levels in the immediate project vicinity. **Table XI-3** shows a summary of the results of the ambient noise level measurements.

TABLE XI-3
EXISTING AMBIENT NOISE MONITORING RESULTS

				Average Measured Hourly Noise Levels, dB					
Site	Location	Date	L_{dn}	Daytime (7:00 a.m. – 10:00 p.m.)			Nighttime (10:00 p.m. – 7 a.m.)		
				L_{eq}	L_{50}	L_{max}	L_{eq}	L_{50}	L_{max}
Short-Term Noise Measurement Sites									
1	Southeast corner of site	12/3/08	-	56	52	68		NA	
2	Northeast corner of site	12/3/08	-	46	44	60		NA	
3	Northwest corner of site	12/3/08	-	45	44	57		NA	
24-Hour Noise Measurement Site									
A	Southeast region of site	12/4-7/08	49-57	48-51	45-50	59-62	42-50	38-46	56-62

Source: j.c. brennan & associates, inc., 2008.

On December 3, 2008, j.c. brennan & associates, inc. staff conducted short-term noise level measurements and a concurrent count of traffic for Bradshaw Road on the project site. **Table XI-4** shows the results of the traffic noise calibration.

TABLE XI-4
COMPARISON OF FHWA MODEL TO MEASURED TRAFFIC

Site	Vehicles: Autos	Vehicles: Med. Truck	Vehicles: Heavy Truck	Speed (mph)	Distance (feet)*	Measured L_{eq}, dB	Modeled L_{eq}, dB**	Difference
Bradshaw Road								
1	79	4	1	55	150	58.3	57.9	-0.4 dB
2	79	4	1	55	500	46.0	50.3	+4.3 dB

Source: j.c. brennan & associates, inc., 2008.

** The noise measurement location is from the roadway centerline.*

*** Acoustically "soft" site assumed.*

Based upon the calibration results, the FHWA Model was found to accurately predict Bradshaw Road traffic noise levels at Site 1 (refer to **Figure 6**). However, at Site 2 the model was found to over-predict traffic noise levels by 4.3 dB (refer to **Figure 6**). This model over-prediction was likely the result of excess ground attenuation due to the distance to Bradshaw Road. This is typical for distances of approximately 400 feet, or more. Therefore, a conservative model correction has been applied to exterior locations located 400 feet, or greater, from the centerline of Bradshaw Road.

Table XI-4 shows the predicted future traffic noise levels at the project site for Bradshaw Road.

TABLE XI-4
PREDICTED FUTURE TRAFFIC NOISE LEVELS
(CUMULATIVE PLUS PROJECT)

Roadway	Average Daily Traffic (ADT)	Location	Distance to Roadway Centerline	Noise Level (Ldn)	Noise Level (Leq)
Bradshaw Road	32,287	Rectory Façade	160'	67 dB	NA
		Rectory Rear Yard	210'	**65 dB**	NA
		Church Building Façade – Phase 1a	470'	NA	56 dB
		Church Building Façade – Phase 3	220'	NA	66 dB
		Outdoor Plaza/Patio	455'	57 dB	NA
		Sports Field/Playground	1,100'	51 dB	NA
		K-8 school Façade/Play Area	700'	54 dB	NA

Source: Fehr & Peers Transportation Consultants and j.c. brennan & associates, Inc. - 2008

Based on **Table XI-4**, exterior noise levels at the outdoor area of the proposed rectory would exceed the City of Elk Grove 60 dB L_{dn} exterior noise level standard. This is considered a potentially significant impact and mitigation is identified to reduce this impact.

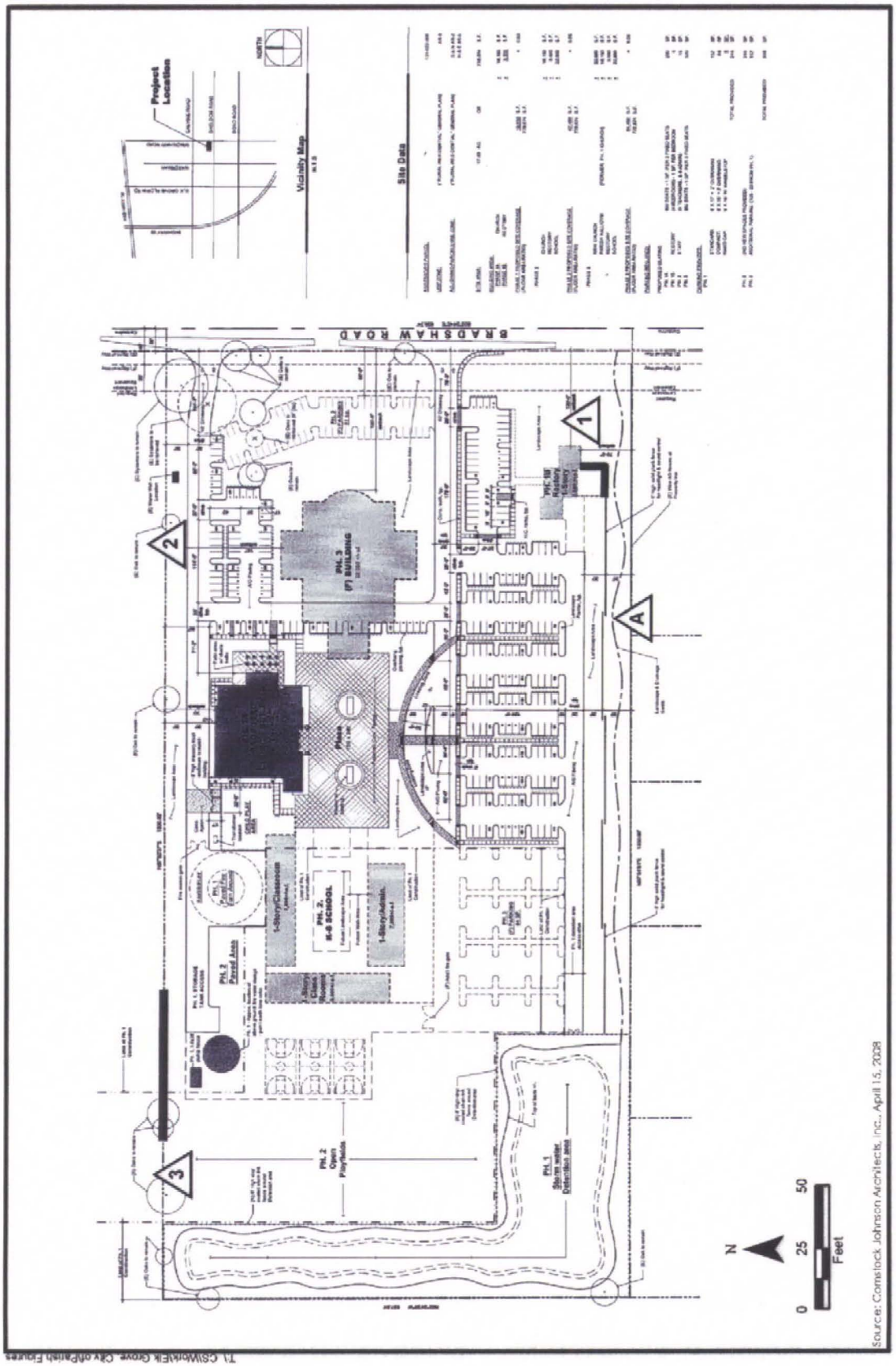


FIGURE 6
Noise Measurement and Soundwall Locations

City of Elk Grove
Development Services

T:\...\Elk Grove City of\Path\Figure...

Rectory

An interior noise level standard of 45 dB L_{dn} is applied to the Phase 1B rectory as a residential use. The future exterior traffic noise levels at the rectory are predicted to be 67 dB L_{dn}. Based upon a 25 dB exterior-to-interior building façade noise reduction, future interior traffic noise levels are predicted to be 42 dB L_{dn}. Therefore, interior traffic noise levels for the rectory are predicted to comply with the City's interior noise level standard of 45 dB L_{dn} and are therefore considered less than significant.

Church

An interior noise level standard of 40 dB L_{eq} is applied to churches in the City of Elk Grove General Plan Noise Element. The future exterior traffic noise level at the Phase 3 church building is predicted to be 66 dB L_{eq}. Based upon a 25 dB exterior-to-interior building façade noise reduction provided by standard residential construction, future interior traffic noise levels are predicted to be 41 dB L_{eq}. Therefore, interior traffic noise levels are predicted to exceed the City's interior noise level standard of 40 dB L_{eq}. This impact is considered potentially significant and mitigation is identified to reduce this impact.

The Phase 1A church building is predicted to be exposed to traffic noise levels of 56 dB L_{eq} and interior noise levels of 31 dB L_{eq}. Therefore, interior traffic noise levels are predicted to comply with the City's interior noise level standard of 40 dB L_{eq} under Phase 1A and exposure to interior traffic noise levels in excess of standards are considered less than significant for Phase 1A.

K-8 School

An interior noise level criterion of 45 dB L_{eq} is applied to schools in the City of Elk Grove General Plan Noise Element. The future exterior traffic noise levels at the Phase 2 school is predicted to be 54 dB L_{eq}. Based upon a 25 dB exterior-to-interior building façade noise reduction provided by standard residential construction, future interior traffic noise levels are predicted to be 29 dB L_{eq}. Therefore, interior traffic noise levels for the school are predicted to comply with the City's interior noise level standard of 45 dB L_{eq}.

Mitigation Measures

MM XI-1 A 6-foot-high soundwall constructed of concrete masonry, solid concrete panels, earthen berms or a combination of earthen berm and wall shall be constructed to achieve compliance with the City of Elk Grove 60 dB L_{dn} exterior noise level standard for the outdoor area of the proposed rectory. The proposed barrier shall be reviewed by an acoustical consultant to ensure that the barrier meets the requirements of a sound-attenuating traffic noise barrier. Potential soundwall locations are shown in **Figure 6**.

or

In lieu of a soundwall, one of the following noise reduction options shall be employed:

- Construct a 6-foot-high landscaped berm between the outdoor activity area of the rectory and Bradshaw Road; or
- Reorient the rectory to fully shield the outdoor area; or

- Relocate the rectory farther from Bradshaw Road to a distance of approximately 450 feet or greater.

Timing/Implementation: ~~*As a condition of approval*~~*Prior to issuance of improvement plans/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Service, Planning Department*

MM XI-2 A detailed interior noise analysis shall be conducted when building plan details are available for Phase 3 of the church building. If the results of the study show that interior noise levels do not meet City Standards, appropriate mitigation measures such as higher rating windows and wall insulation and/or building materials and/or others measures as recommended by the noise consultant shall be implemented to achieve compliance with the City's interior noise level requirements.

Timing/Implementation: ~~*As a condition of approval*~~*Prior to issuance of building permits for for Phase 3*

Enforcement/Monitoring: *City of Elk Grove, Development Service, Planning Department*

Implementation of the above mitigation measures would reduce noise impacts resulting from operation of the proposed project to less than significant.

b) ***Less Than Significant Impact.*** Future development of the project site resulting from the proposed project could expose future and existing residents in the vicinity of the project site to groundborne vibrations resulting from construction activities. Varying degrees of groundborne vibration can result from construction activities, depending on the equipment used and activities being performed. However, these vibrations would be temporary in nature and would discontinue upon completion of construction. Furthermore, Section 23.60.060 of the City of Elk Grove Zoning Code sets forth requirements that projects generating vibrations be cushioned or isolated to prevent the vibrations from becoming a public nuisance or hazard. While the Zoning Code states that vibrations from temporary construction/demolition activities are exempt, compliance would ensure that no permanent vibrations which could be felt off of the site would be generated by the proposed project. Therefore, groundborne vibrations, or temporary construction noise impacts, are considered to be less than significant.

c) ***Less Than Significant with Mitigation Incorporated.*** The primary noise sources associated with the proposed project are onsite parking lot activities and sports field/playground activities. The predicted peak hour L_{eq} at a distance of 50 feet is 59 dB L_{eq}. Based on the site plan, the distance from the center of the south parking lot to the nearest residential property line to the south is 160 feet and the predicted peak hour L_{eq} is approximately 49 dB L_{eq} at the nearest residence to the south. The distance from the center of the north parking lot to the residential property lines is approximately 100 feet. At this distance, the parking lot noise level would be 49 dB L_{eq} during the weekday peak hour. Therefore, parking lot activity noise levels are predicted to comply with the City of Elk Grove daytime (7:00 a.m. – 10:00 p.m.) noise level standard of 55 dB L_{eq} and this impact is considered less than significant.

The predicted peak hour L_{eq} is approximately 53 dB L_{eq} at the nearest residence for Sunday peak hour parking lot noise prediction. For the north parking lot, the noise level would be 51 dB L_{eq} during the Sunday peak hour. Therefore, the Sunday peak hour parking lot activity noise levels are predicted to comply with the City of Elk Grove daytime (7:00 a.m. – 10:00 p.m.) noise level standard of 55 dB L_{eq} and this impact is considered less than significant.

Sports Field/School Playground

Predicted noise levels from the nearest residential property lines (approximately 380 feet south of the sports fields) would be approximately 42 dB L_{eq}. The nearest residential property lines to the west and north of the project site are located approximately 200 feet from the center of the proposed sports fields. At this distance, predicted noise levels from athletic activities would be approximately 48 dB L_{eq}. The predicted noise levels do not account for any shielding benefit which may be provided by the proposed screen wall along the south side of the project site. Nevertheless, the sports field/school playgrounds are not predicted to generate noise levels exceeding the City of Elk Grove exterior noise level standards at the nearest residential property line and this impact is considered less than significant.

Basketball Courts

The project is proposing basketball courts to be located approximately 430 feet from the nearest residential property line to the south, 320 feet from the nearest residential property line to the west, and 200 feet from the nearest residential property line to the north. The primary noise source associated with basketball and tennis courts are people shouting and the repetitive/impulsive noise from bouncing basketballs.

Because the noise from basketball courts includes repetitive/impulsive noise, the City's standards of 55 L_{eq} dB for daytime (7 a.m. – 10 p.m.) and 45 L_{eq} dB for nighttime (10 p.m. – 7 a.m.) are lowered by 5 dB.

Typical hourly noise levels associated with basketball courts are approximately 63 dB L_{eq} at a distance of 50 feet from the center of the court.

Based upon the distances above, the predicted basketball court noise levels are 44 dB L_{eq} at the residential property line to the south, 47 dB L_{eq} at the residential property line to the west, and 51 dB L_{eq} at the residential property line to the north.

The proposed basketball courts are predicted to generate noise levels exceeding the City of Elk Grove 50 dB L_{eq} exterior noise level standard at the residential property line to the north. This is considered a potentially significant impact and mitigation measures are identified to address this impact.

Residential Property Line to West and South

The proposed project is predicted to generate noise levels in compliance with the City of Elk Grove 50 dB L_{eq} exterior noise level standard at the residential property line to the west and south. The predicted noise levels do not account for any shielding benefit which may be provided by the proposed screen wall along the south side of the project site. Therefore, noise levels may actually be lower and are considered less than significant.

Mitigation Measures

MM XI-3 A 6-foot-high noise barrier shall be constructed to reduce noise levels at the residential property line to the north. The barrier is predicted to reduce basketball and related noise levels to 46 dB L_{eq}. Potential sound wall locations are shown in **Figure 7**.

or

A 6-foot-high landscaped berm shall be constructed between the north property line and the basketball courts;

or

he setback of the basketball courts from the north property line shall be increased by approximately 50 feet.

Timing/Implementation: ~~*Include as a feature on development plans and building permit plans;*~~ *Prior to issuance of improvement plans/during construction*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Planning Department*

Implementation of the above mitigation measure would reduce impacts associated with permanent increases in ambient noise levels to less than significant.

d) **Less Than Significant Impact.** Construction of the project may subject surrounding residents and the rectory (when subsequent phases are constructed) on the site to temporary noise elevations and ground vibration. Maximum noise level (dB at 50 feet) for typical construction equipment ranges from 85 dB for a backhoe and pneumatic tools to 87 dB for bulldozers and 88 dB for heavy trucks. Construction noise would be temporary. In addition, the project would be required to comply with City construction noise standards which limit hours and days of construction. Therefore temporary increases in ambient noise levels are considered less than significant.

e-f) **No Impact.** There are no public or private airstrips in the vicinity of the project site. The closest airport is the Elk Grove Airport/Sunset Sky Ranch, located approximately 3.28 miles south of the project site. Figure 4.4-2 of the Elk Grove General Plan DEIR (SCH# 2002062082) demonstrates that the proposed project site is not located within an airport land use plan and does not encroach into the clear, approach/departure, and overflight zones of any air strip (City of Elk Grove, 2003b). Implementation of the proposed project would not affect airport operations, nor would the proposed project result in the development or relocation of any noise-sensitive land uses within 2 miles of any public or private airport or airstrip. As a result, implementation of the proposed project would not result in increased exposure of individuals to excessive aircraft noise levels. Therefore, no impact is expected.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION/CONCLUSION/MITIGATION:

a) ***Less then Significant Impact.*** The proposed project consists of a parish church, offices, a multi-purpose building, a rectory, and a K-8 school. New homes or businesses are not proposed as part of the project, and the church and school are expected to serve existing residents in the northeast portion of the City of Elk Grove. Furthermore, the proposed project site would receive water and sewer service from a private well and septic system, and no additional roads would be constructed as a result of the project. Therefore, the proposed project would not result in indirect population growth through the extension of infrastructure or roadways. For these reasons, it is not anticipated that the proposed project would directly or indirectly induce substantial population growth into the area. Impacts associated with population growth would be less than significant.

b-c) ***No Impact.*** The proposed project site contains one rural residence, which is currently vacant. Therefore, implementation of the proposed project would not displace substantial numbers of housing or people, and would not necessitate the construction of replacement housing elsewhere. No impact would occur.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.	**PUBLIC SERVICES.** Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a)	Fire protection?	☐	☐	☒	☐
b)	Police protection?	☐	☐	☒	☐
c)	Schools?	☐	☐	☐	☒
d)	Parks?	☐	☐	☐	☒
e)	Other public facilities?	☐	☐	☒	☐

DISCUSSION/CONCLUSION/MITIGATION:

a-b) ***Less Than Significant Impact.*** The Cosumnes Community Services District (CCSD) provides fire protection and emergency mitigation to a 157-square mile area that includes the cities of Elk Grove and Galt, as well as the unincorporated areas of south Sacramento County (CSSD, 2008). The CCSD Fire Department Master Plan identifies response infrastructure needed to provide an adequate level of service to its service area through the current CCSD Master Plan period, which ends in 2010. The funding for new stations, equipment and personnel has been identified through existing shares of property tax revenues and fees that increase revenues concurrent with new development (City of Elk Grove, 2003b). The proposed project alone is not anticipated to result in the need for additional fire personnel or facilities, as development of the project site consistent with its current General Plan land use designation was considered programmatically in the CCSD Master Plan.

Police protection services in the city are provided by the City of Elk Grove Police Department. Implementation of the proposed project could slightly increase the demand for police and law enforcement services, as both the CCSD and the Elk Grove Police Department would need to respond to any calls for service at the currently vacant project site. The Police Department has a staffing standard of one officer per every 1,000 persons and one support staff for every three officers (City of Elk Grove, 2003b). However, as discussed under the Population and Housing section of this MND, the proposed project would not generate additional residents and is therefore not expected to result in the need for additional police personnel or facilities.

Furthermore, the City of Elk Grove General Plan DEIR (SCH# 2002062082) identified that implementation of the General Plan would result in an increased demand for fire and police protection services and that impacts would be less than significant. These impacts are considered less than significant.

c-d) ***No Impact.*** As discussed under the Population and Housing section of this document, the proposed project would not generate additional residents. As such, the project would not generate additional students to be absorbed by the Elk Grove Unified School District (EGUSD) and would not require the construction or expansion of public school facilities. Similarly, the project would not generate additional population that would utilize parks in

the area and require the construction of new or expanded park facilities or services. The proposed project would instead result in a private school and children's play area being constructed on the site. Therefore, no impacts to public schools or parks would occur.

e) ***Less Than Significant Impact.*** The proposed project would increase the demand for other public services, such as electricity, telephone, and natural gas services. The City of Elk Grove General Plan DEIR (SCH# 2002062082) identified that implementation of the General Plan would result in an increased demand for other public services, including electricity, telephone, and natural gas services, and that impacts would be less than significant. Therefore, public service impacts resulting from development, such as the proposed project, were disclosed and addressed in the General Plan DEIR. These impacts are considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

DISCUSSION/CONCLUSION/MITIGATION:

a-b) ***Less Than Significant Impact.*** The City and the Cosumnes Community Services District (CCSD) provide parks and recreation services to the Elk Grove community. Together, the two agencies will plan and design new parks; own, operate and maintain parks and community centers; manage rentals of community centers, picnic sites and sports fields, and offers recreation programs. Recreation programs currently offered include special events, preschools, summer camps, teen programs, special interest classes, before- and after-school recreation, non-traditional sports, therapeutic recreation, youth and adult sports and aquatic programming (CSSD, 2008). As discussed under the Population and Housing section of this MND, the proposed project would not generate additional population that would utilize parks and recreation services provided by the City or the CCSD. The proposed multi-purpose building and children's play area proposed on the site would provide on-site recreation and special event opportunities for those utilizing the project site. The environmental impacts resulting from development of the site, including the children's play area and the multi-purpose building, are identified and analyzed in the appropriate sections of this MND. Therefore, the proposed project is not anticipated to increase the usage of existing neighborhood and regional parks or other recreational facilities. Environmental impacts resulting from development of the recreational facilities on the site are analyzed in this MND, and impacts associated with recreational facilities would be less than significant.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV.	**TRANSPORTATION/TRAFFIC.** Would the project:				
a)	Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☒	☐	☐
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c)	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?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e)	Result in inadequate emergency access?	☐	☐	☐	☒
f)	Result in inadequate parking capacity?	☐	☐	☐	☒
g)	Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

DISCUSSION/CONCLUSION/MITIGATION:

The following discussion is based on the *Transportation Impact Study for Parish Church and K-8 School* (Fehr & Peers, November 13, 2008) (**Appendix H**). Revised average daily trips for Bradshaw Avenue were prepared on December 16, 2008. The study examined two all-way stop intersections: Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road. Existing conditions as well as two scenarios were included in the traffic study. Full buildout included Phases 1, 2 and 3 and baseline conditions examined Phases 1 and 2 (the 600 seat church with office space and meeting rooms in a 16,100 square foot multi-purpose building, and 3,500 square foot rectory) and K-8 elementary school to be completed in 2014. Cumulative conditions assume the buildout roadway network identified in the City of Elk Grove General Plan (year 2025). The traffic analysis software, Synchro, was used to determine the impacts of the project on the surrounding intersections. When the volumes considerably exceed the capacity of an intersection the ability of the software to calculate the actual delay is limited. Therefore, reporting seconds of delay for an oversaturated intersection of over 80 seconds does not represent the actual delay well. Synchro adequately represents the incremental change of no project to with project to identify impacts to the surrounding intersections.

a) ***Less Than Significant With Mitigation Incorporated.*** Key roadways in the vicinity of the project site include Waterman Road, Bradshaw Road, Sheldon Road, SR 99, Calvine Road and Bond Road. Existing conditions at key intersections in the project vicinity are shown in **Table XV-1** below.

TABLE XV-1
INTERSECTION CONTROL DELAY AND LEVEL OF SERVICE – EXISTING CONDITIONS

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour		Sunday Peak Hour	
		Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]
1. Sheldon Road/Waterman Road	All-Way Stop	>80	F	66	F	12	B
2. Sheldon Road/Bradshaw Road	All-Way Stop	>80	F	>80	F	12	B

Source: Fehr & Peers, 2008.

Notes:

[1] The overall average intersection control delay is reported in seconds per vehicle.

[2] Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000 in Fehr & Peers 2008).

Shading indicates that the intersection operates unacceptably based on the significance criteria.

As shown in **Table XV-1**, the study intersections at Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road currently experience unacceptable operations during both the AM and PM peak hours (LOS F). AM peak hour queues of approximately 15 vehicles were observed on both the northbound and southbound approaches of the Sheldon Road/Bradshaw Road intersection. Queuing was most pronounced between 7:15 a.m. and 7:30 a.m. and largely dissipates by 8:00 a.m. Substantial queuing does not occur at the intersection of Sheldon Road/Waterman Road during the AM peak hour.

During the PM peak hour, queuing occurs on all approaches, with the longest queues (10 to15 vehicles) in the westbound and southbound approaches at the Sheldon Road/Waterman Road intersection. At the Sheldon Road/Bradshaw Road intersection, severe queuing of 30 to 40 vehicles occurs on the southbound approach. This queuing does not dissipate until after 6:00 p.m. Queuing at other approaches of this intersection does not typically occur during the PM peak hour. Due to the lighter traffic volumes that occur on Sundays, the all-way stop intersections are able to process Sunday peak hour traffic volumes with very little delay.

Baseline plus project conditions assumed that only the first two phases of the parish church and K-8 elementary school would be constructed. No capacity enhancements for the transportation network near the project site were assumed under baseline conditions.

The other scenario examines Buildout of the project: Phase 1: construction of 600-seat church, with office space and meeting rooms in a 16,100 square foot multi-purpose building, and 3,500 square foot rectory; Phase 2: construction of a single-story K-8 elementary school to accommodate 306 students (2014 estimated completion date). Phase 3 (Buildout): construction of main 960-seat church totaling 22,000 square feet and conversion of Phase 1 church to multi-purpose building (2024 estimated completion date).

The study analyzes the traffic impacts of the proposed project on the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections under existing (baseline), baseline plus project (2014), and cumulative (2025) conditions. An impact is considered significant on intersections if the project causes the facility to change from LOS D or better to LOS E or F. For facilities that are, or will be (in the baseline or cumulative condition), operating at unacceptable levels of service without the project, an impact is considered significant if the project increases the delay at study intersections by more than 5 seconds.

The City's *Rural Road Improvement Policy* does not alter the thresholds of significance established by the City's Traffic Impact Assessment guidelines. This policy does, however, provide guidance on the types of transportation improvements that can be constructed in the Sheldon Area and requires that improvements be phased in only once an existing operational need can be identified.

For an all-way stop controlled intersection, the policy specifies the following typical progression of improvements, although variations can exist. Timing for implementation of these will depend on actual traffic volumes, which are also identified in the policy.

1) All-way stop control

2) Traffic signal control with separate left turn lanes or a single-lane roundabout

3) Traffic signal control with separate left turn and right turn lanes or a single-lane roundabout

4) Traffic signal control with separate left turn and right turn lanes and two through lanes

5) Widen roadway segment from 2 lanes to 4 lanes

6) Widen roadway segment from 4 lanes to 6 lanes

Baseline Conditions

Baseline conditions were developed for a scenario that just assumed construction of Phase 1 (construction of the Church). The addition of the church to baseline conditions will add <1 second of delay in the AM peak period and <1 second of delay in the PM peak period at the Sheldon Road/Waterman Road intersection. Similarly, at the intersection of Sheldon Road/Bradshaw Road the church would increase the delay by 3 seconds in the AM peak period and 1 second in the PM peak period. As these increases are below the more than 5 second threshold, the increase is considered less than significant for Phase 1 alone (City of Elk Grove, 2009a).

Under the baseline (Phases 1 and 2) scenario, only partial build-out of the proposed project was assumed; therefore the project's trip generation is reduced. A summary of the trip generation for the land uses assumed to be constructed under baseline conditions is shown in **Table XV-2**.

TABLE XV-2
ESTIMATED TRIP GENERATION FOR PARISH CHURCH – BASELINE (PHASES 1 AND 2)

Land Use	Amount	Trip Rate[1]			Trips		
		Sunday Peak Hour	Midweek AM Peak Hour	Midweek PM Peak Hour	Sunday Peak Hour	Midweek AM Peak Hour	Midweek PM Peak Hour
Church[2]	600 seats	0.63/seat	0.02/seat	0.02/seat	378	12	11
Rectory[3]	3,500 sf	2.00/unit	2.00/unit	2.00/unit	2	2	2
K-8[4] Private School	306 students	-	0.90/student	0.17/student	-	275	52
		New Trips			380	289	65

Source: Fehr & Peers, 2008.

Notes:

1 *Based on trip generation rates from Trip Generation, 7th Edition, Institute of Transportation Engineers (ITE), 2003.*

2 *In order to provide most conservative analysis, midweek peak hour rates based on a 16,100 sf church building and Sunday rate based on a 600 seat church. All rates were converted into seat-based rates for display in Table XV-2.*

3 *Treated as two single family homes.*

4 *PM peak hour trip generation based on trip generation for a private K-12 school, due to lack of rates available for K-8 schools during the PM peak hour.*

sf = square feet.

The addition of project traffic to baseline volumes would cause significant impacts at the intersection of Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road during the AM and PM peak hours. The results of analyzing the study intersections under Baseline Plus Project Conditions is shown in **Table XV-3**.

TABLE XV-3
INTERSECTION CONTROL DELAY AND LEVEL OF SERVICE – BASELINE PLUS PROJECT CONDITIONS

Intersection	Traffic Control	Baseline No Project			Baseline Plus Project		
		AM Peak Hour	PM Peak Hour	Sunday	AM Peak Hour	PM Peak Hour	Sunday
		Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]
1. Sheldon Road/Waterman Road	All-Way Stop	>80/F	>80/F	14/B	*>80/F*	>80/F	17/B
2. Sheldon Road/Bradshaw Road	All-Way Stop	>80/F	>80/F	14/B	*>80/F*	*>80/F*	23/C

Source: Fehr & Peers, 2008.

Notes:

1 *For signalized and all-way stop-controlled intersections, the overall average intersection control delay is reported in seconds per vehicle. For side-street stop-controlled intersections, the average control delay for the worst movement is reported in seconds per vehicle. >80 is reported when Synchro is unable to calculate the average control delay for stop-controlled intersections due to oversaturated conditions.*

2 *Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000 in Fehr & Peers 2008).*

Shading indicates that the intersection operates unacceptably based on the significance criteria.

***Bold italic** indicates project impact based on the significance criteria.*

The addition of project traffic to baseline traffic would increase the average delay at the Sheldon Road/Waterman Road intersection during the AM peak hour and Sheldon Road/Bradshaw Road intersection during both AM and PM peak hours by more than 5 seconds. Since both intersections operate unacceptably (LOS F) in the AM and PM peak hours under baseline conditions, impacts to these intersections are considered significant.

Mitigation Measure

Baseline (Phase 1 and 2)

MM XV-1 The applicant shall be required to construct the following improvement, to the satisfaction of the Director of Public Works:

The northbound approach to the Sheldon Road/Waterman Road intersection shall be widened to include a separate left-turn lane and a shared through-right-turn lane.

Widening to provide a separate left-turn lane would create an offset for vehicles traveling northbound through the intersection. To provide an alignment through the intersection that is more intuitive for drivers and that would minimize the offset, separate left-turn lanes need to be constructed on both northbound and southbound approaches. Construction of left-turn lanes on these approaches assumes that the intersection remains all-way stop controlled. Additional improvements would be necessary at the time of signalization due to higher travel speeds.

Timing/Implementation: *Prior to issuance of building permit for Phase 2 (K-8 school)*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works*

MM XV-2 The applicant shall be required to construct the following improvement, to the satisfaction of the Director of Public Works:

The eastbound approach to the intersection of Sheldon Road/Bradshaw Road shall be widened to include a separate left-turn lane and a shared through-right-turn lane. Separate left-turn lanes shall be constructed on both eastbound and westbound approaches. These improvements are anticipated to require relocation of the flashing beacon on the northwest corner of the intersection. Construction of left-turn lanes on these approaches assumes that the intersection remains all-way stop-controlled. Additional improvements shall be installed at the time of signalization due to higher travel speeds.

Timing/Implementation: *Prior to issuance of building permit for Phase 2 (K-8 school)*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works*

Mitigation measure MM XV-1 would restore the average delay at the intersection to less than no project levels. Mitigation measure MM XV-2 would restore the average delay at the intersection to less than no project levels in the AM peak hour and to within 5 seconds of no project levels in the PM peak hour. Both of these mitigation measures are consistent with the intersection improvement concepts outlined in the *Rural Road Improvement Policy*.

Table XV-4 summarizes how the mitigation measures identified would reduce impacts to a less than significant level.

TABLE XV-4
INTERSECTION CONTROL DELAY AND LEVEL OF SERVICE – BASELINE (PHASE 1 AND 2) PLUS PROJECT CONDITIONS WITH MITIGATION

Intersection	Traffic Control	Baseline No Project		Baseline Plus Project		Baseline Plus Project With Mitigation	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
		Delay1 /LOS2	Delay1 /LOS2	Delay1/ LOS2	Delay1/ LOS2	Delay1/ LOS2	Delay1 /LOS2
1. Sheldon Road/ Waterman Road	All-Way Stop	>80/F	>80/F	*>80 (increase by 19 seconds)/F*	*>80 (increase by 4 seconds)/F*	*>80 (decrease by 55 seconds)/F*	*>80 (decrease by 66 seconds)/F*
2. Sheldon Road/ Bradshaw Road	All-Way Stop	>80/F	>80/F	*>80 (increase by 53 seconds)/F*	*>80 (increase by 10 seconds)/F*	*>80 (decrease by 86 seconds)/F*	*>80 (decrease by 9 seconds)/F*

Source: Fehr & Peers, 2008, City of Elk Grove, 2009b.

Notes:

[1] *For signalized and all-way stop-controlled intersections, the overall average intersection control delay is reported in seconds per vehicle. For side-street stop-controlled intersections, the average control delay for the worst movement is reported in seconds per vehicle. >80 is reported when Synchro reaches oversaturated conditions.*

[2] *Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000).*

Shading indicates that the intersection operates unacceptably based on the significance criteria.

***Bold italic** indicates project impact based on the significance criteria.*

Existing Plus Project Conditions

Buildout

While the parish church and K-8 elementary school is expected to be constructed in three phases, existing plus project construction assume full buildout of the project. Published rates in *Trip Generation*, 7th Edition (Institute of Transportation Engineers, 2003) were used to estimate the project's weekday daily, AM peak hour, and PM peak hour trip generation, as shown in Table XV-5. The rates used to forecast the church trips varied between square footage-based and seat- based rates in order to provide the most conservative estimate of trip generation. Square footage-based rates were used during the midweek peak hours and seat-based rates were used to estimate Sunday trip generation. Similarly, the trip generation of two single family homes was used to estimate trips associated with the rectory and the trip generation rate for a private K-12 school was used to estimate the proposed school's PM peak hour trip generation due to a lack of published rates for these uses.

TABLE XV-5
ESTIMATED TRIP GENERATION FOR PARISH CHURCH – BUILDOUT

Land Use	Amount	Trip Rate[1]			Trips		
		Sunday Peak Hour	Midweek AM Peak	Midweek PM Peak	Sunday Peak Hour	Midweek AM Peak	Midweek PM Peak

			Hour	Hour		Hour	Hour
Church[2]	960 seats	0.62/seat	0.05/seat	0.06/seat	597	49	54
Rectory[3]	3,500 sf	2.00/unit	2.00/unit	2.00/unit	2	2	2
K-8[4] Private School	306 students	-	0.90/student	0.17/student	-	275	52
New Trips					599	326	108

Source: Fehr & Peers, 2008.

Notes: sf = square feet.

1 *Based on trip generation rates from Trip Generation, 7th Edition, Institute of Transportation Engineers (ITE), 2003.*

2 *In order to provide most conservative analysis, midweek peak hour rates based on a 38,100 sf church building and Sunday rate based on a 960 seat church. All rates were converted into seat-based rates for display in Table XV-2.*

3 *Treated as two single family homes.*

4 *PM peak hour trip generation based on trip generation for a private K-12 school, due to lack of rates available for K-8 schools during the PM peak hour.*

The project's trip distribution is expected to be slightly different during Sundays and midweek as different land uses would drive trip distribution. On weekdays, the school would dominate the trip distribution for the site. On Sundays, the church would be the major determinant of trip distribution. Over half of the trips would head north on Bradshaw Road during both weekdays and Sundays. On weekdays, it is expected that the remaining trips will distribute 20 percent south on Bradshaw Road or east on Sheldon Road, with the remaining 25 percent of trips heading westbound on Sheldon Road toward Waterman Road and points west. On Sundays, trips leaving church would be more loosely distributed, with a higher percentage of trips heading east on Sheldon Road.

Table XV-6 displays intersection LOS under existing plus project conditions. As shown the addition of project traffic would cause significant impacts at both study intersections.

TABLE XV-6
INTERSECTION CONTROL DELAY AND LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

Intersection	Traffic Control	Existing No Project			Existing Plus Project		
		AM Peak Hour	PM Peak Hour	Sunday	AM Peak Hour	PM Peak Hour	Sunday
		Delay1/ LOS2	Delay1/ LOS2	Delay1/ LOS2	Delay1/ LOS2	Delay1/ LOS2	Delay1/ LOS2
1. Sheldon Road/Waterman Road	All-Way Stop	>80/F	>80/F	12/B	>80/F	76/F	15/B
2. Sheldon Road/Bradshaw Road	All-Way Stop	>80/F	>80/F	12/B	>80/F	>80/F	20/C

Source: Fehr & Peers, 2008.

Notes:

[1] *For signalized and all-way stop-controlled intersections, the overall average intersection control delay is reported in seconds per vehicle. For side-street stop-controlled intersections, the average control delay for the worst movement is reported in seconds per vehicle. >80 is reported when Synchro is unable to calculate the average control delay for stop-controlled intersections due to oversaturated conditions.*

[2] *Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000 in Fehr & Peers 2008).*

Shading indicates that the intersection operates unacceptably based on the significance criteria.

***Bold italic** indicates project impact based on the significance criteria.*

As shown in **Table XV-6**, the addition of project traffic would cause significant impacts at both intersections during the AM and PM peak hours. The addition of project traffic would increase the average delay by more than 5 seconds during both weekday peak hours. Since this intersection operates unacceptably (LOS F) in the AM and PM hours under existing conditions, this impact is considered significant.

MM XV-3 The applicant shall be required to construct the following improvement, to the satisfaction of the Director of Public Works:

The northbound approach for the intersection of Sheldon Road/Waterman Road shall be widened to provide a separate left-turn lane and a shared through-right-turn lane.

Widening to provide a separate left-turn lane would create an offset for vehicles traveling northbound through the intersection. To provide an alignment through the intersection that is more intuitive for drivers and that would minimize the offset, separate left-turn lanes need to be constructed on both northbound and southbound approaches. Construction of left-turn lanes on these approaches assumes that the intersection remains all-way stop controlled. Additional improvements would be necessary at the time of signalization due to higher travel speeds.

Timing/Implementation: *Prior to issuance of building permit for Phase 2*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works~~Planning~~ Department*

MM XV-4 The applicant shall be required to construct the following improvement, to the satisfaction of the Director of Public Works:

The westbound approach for the intersection of Sheldon Road/Bradshaw Road shall be widened to provide a separate left-turn lane and shared through-right-turn lane.

Due to the physical constraint created by the bridge abutment on the westbound approach, widening to provide a separate left-turn lane would create an offset for vehicles traveling westbound through the intersection. To provide an alignment through the intersection that is more intuitive for drivers and that would minimize the offset, separate left-turn lanes need to be constructed on both eastbound and westbound approaches. It is anticipated that these improvements would require relocation of the flashing beacon on the northwest corner of the intersection. Construction of left-turn lanes on these approaches assumes that the intersection remains all-way stop controlled. Additional improvements would be necessary at the time of signalization due to higher travel speeds.

Timing/Implementation: *Prior to issuance of building permit for Phase 2*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works~~Planning~~ Department*

Mitigation measures MM XV-3 and MM XV-4 would restore the average delay at the intersection of Sheldon Road/Waterman Road to less than no project levels. This mitigation is consistent with the intersection improvement concepts outlined in the *Rural Road Improvement Policy*. Mitigation measure MM XV-4 would restore the average delay at the intersection to within 5 seconds of no project levels in the AM peak hour and to less than no project levels in the PM peak hour. This mitigation is also consistent with the intersection improvement concepts outline in the *Rural Road Improvement Policy*.

Table XV-7 summarizes how the mitigation measures identified here would reduce impacts to a less than significant level.

TABLE XV-7
INTERSECTION CONTROL DELAY AND LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS WITH MITIGATIONS

Intersection	Traffic Control	Existing No Project		Existing Plus Project		Existing Plus Project With Mitigation	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
		Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]
1. Sheldon Road/ Waterman Road	All-Way Stop	>80/F	66/F	>80 (increase by 24 seconds)/F	76 (increase by 10 seconds)/F	80 (decrease by 30 seconds)/F	59 (decrease by 17 seconds)/F
2. Sheldon Road/ Bradshaw Road	All-Way Stop	>80/F	>80/F	>80 (increase by 36 seconds)/F	>80 (increase by 19 seconds)/F	>80 (decrease by 34 seconds)/F	>80 (decrease by 28 seconds)/F

Source: Fehr & Peers, 2008, City of Elk Grove, 2009b.

Notes:

1 *For signalized and all-way stop-controlled intersections, the overall average intersection control delay is reported in seconds per vehicle. For side-street stop-controlled intersections, the average control delay for the worst movement is reported in seconds per vehicle. >80 is reported when Synchro is unable to calculate the average control delay for stop-controlled intersections due to oversaturated conditions.*

2 *Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000 in Fehr & Peers 2008).*

Shading indicates that the intersection operates unacceptably based on the significance criteria.

***Bold italic** indicates project impact based on the significance criteria.*

b) ***Less than Significant.*** In terms of cumulative impacts, the addition of project traffic would not significantly impact operations at either of the study intersections as shown in **Table XV-8**. Cumulative conditions assume the build-out roadway network identified in the City of Elk Grove General Plan.

TABLE XV-8
INTERSECTION CONTROL DELAY AND LEVEL OF SERVICE – CUMULATIVE PLUS PROJECT CONDITIONS

Intersection	Traffic Control	Cumulative No Project			Cumulative Plus Project		
		AM Peak Hour	PM Peak Hour	Sunday	AM Peak Hour	PM Peak Hour	Sunday
		Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]	Delay[1]/ LOS[2]
1. Sheldon Road/Waterman Road	All-Way Stop	28/C	30/C	13/B	>29/C	30/C	14/B
2. Sheldon Road/Bradshaw Road	All-Way Stop	29/C	25/C	14/B	>29/C	>25/C	16/B

Source: Fehr & Peers, 2008.

Notes:

1 *For signalized and all-way stop-controlled intersections, the overall average intersection control delay is reported in seconds per vehicle. For side-street stop-controlled intersections, the average control delay for the worst movement is reported in seconds per vehicle. >80 is reported when Synchro is unable to calculate the average control delay for stop-controlled intersections due to oversaturated conditions.*

2 *Level of Service based on Highway Capacity Manual (Transportation Research Board, 2000 in Fehr & Peers 2008).*

Shading indicates that the intersection operates unacceptably based on the significance criteria.

***Bold italic** indicates project impact based on the significance criteria.*

The additional capacity assumed under cumulative conditions is sufficient to accommodate anticipated traffic volumes even with the addition of project traffic from the parish church under buildout conditions. Therefore, cumulative impacts are considered less than significant.

c) ***No Impact.*** There are no public or private airstrips in the vicinity of the project site. The closest airport is the Elk Grove Airport/Sunset Sky Ranch, located approximately 3.28 miles south of the project site. The proposed project site does not fall within the clear, approach/departure and/or overflight zones for the Elk Grove Airport/Sunset Sky Ranch (City of Elk Grove, 2003b). Therefore, no impacts to air traffic patterns or air traffic levels are anticipated in association with the proposed project.

d) ***Less than Significant Impact.*** The proposed project would not substantially increase hazards due to incompatible uses. However, the widening of the Sheldon Road/Waterman Road intersection to provide a separate left-turn lane identified as mitigation measure MM XV-3, would create an offset for vehicles traveling northbound through the intersection. To provide an alignment through the intersection that is more intuitive for drivers and what would minimize the offset, construction of separate left-turn lanes would be required on both northbound and southbound approaches. Therefore, impacts associated with design features are considered less than significant.

e) ***Less than Significant Impact.*** The site has two driveways located along Bradshaw Road. The main access to the site is proposed via a 45-foot wide driveway off of Bradshaw Road that aligns approximately down the middle of the site. These two access points would provide adequate emergency access and this impact is considered less than significant.

f) ***Less than Significant Impact.*** Phase 1 and 2 include a total of 244 parking spaces and Phase 3 will provide an additional 112 spaces in compliance with the requirement of 1 space per 3 seats in the church for a total of 356. The amount of parking required in association with the church use is higher than what is needed for the school. The parking

lot will be shared by both uses, but the activities associated with the school and church use will occur at different times (school on weekdays and church on weekends). The number of parking spaces provided would be sufficient to accommodate both uses. Therefore, parking impacts are considered less than significant.

g) ***Less than Significant Impact.*** Bicycle lanes are located to the north of the project site on Calvine Road between Waterman Road and Power Inn Road and to the west along Elk Grove-Florin Road. The *2004 City of Elk Grove Bicycle and Pedestrian Master Plan* identifies Sheldon Road, Bradshaw Road, and Waterman Road as potential roadways for future bicycle and pedestrian improvements. Bus service in the area of the project site is limited. The closest bus line to the project site is Route 70. This route travels on Bradshaw Road connecting Elk Grove destinations with the Franchise Tax Board complex and Butterfield Light Rail station in unincorporated Sacramento County. This stop provides weekday peak period service only.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☒	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☒	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state and local statutes and regulations related to solid waste?	☐	☐	☒	☐

DISCUSSION/CONCLUSION/MITIGATION:

a) & e) ***Less than Significant with Mitigation Incorporated.*** The proposed project site would not connect to the public sewer system and would instead be served by an onsite septic system. The County of Sacramento Environmental Management Department (EMD), Water Protection Division is responsible for oversight of the design and installation of all onsite sewage disposal systems in Sacramento County, pursuant to Chapter 6.32, Sanitary Sewage Systems of the County's Municipal Code. Construction and maintenance of the septic system on the project site would be permitted by the EMD and the septic system would be required to comply with the County's Rules and Regulations Regarding Minimum Requirements for the Design, Construction, and Installation of Individual Sewage Disposal Systems (EMD, 2008).

An Onsite Waste Water Disposal System Feasibility Study was conducted for the project site by Neil O. Anderson and Associates in October of 2007 (Anderson, 2007b). The Feasibility Study indicated that, at buildout, the project site would have an average daily wastewater flow rate of 7,675 gallons per day with a peak flow of 20,000 gallons on Sunday. The Feasibility Study concluded that either a deep trench or deep pit disposal field would be suitable on the site, provided there would be enough room to accommodate these systems (Anderson, 2007b). However, the study includes design calculations for both a deep trench and a deep pit disposal field. Mitigation measure **MM VI-24**, as identified under the Geology and Soils section of this MND, requires that

design calculations specified in the Onsite Waste Water Disposal System Feasibility Study be included in project design. Compliance with the specified design calculations, as well as Sacramento Environmental Management Department (EMD) Rules and Regulations, would result in a septic system with adequate capacity to accommodate wastewater flows generated by the proposed project.

Mitigation Measures

MM XVI Prior to issuance of occupancy permit, on-site septic infrastructure must be constructed and the project applicant must provide verification that a septic system permit from the Sacramento EMD has been approved.

Timing/Implementation: *Prior to issuance of the first occupancy permit*

Enforcement/Monitoring: *City of Elk Grove, Development Services, Public Works~~Planning~~ Department.*

Implementation of MM XVI would ensure that the proposed project would be accommodated through an on-site septic system. As a result, the project would not exceed wastewater treatment requirements and would not affect the capacity of the local wastewater treatment provider. Therefore, impacts to wastewater treatment would be mitigated to less than significant.

b-c) ***Less than Significant Impact.*** The proposed project includes an onsite well for water supply, as well as an onsite septic system for wastewater treatment. The project also includes construction of an on-site detention basin to accommodate stormwater runoff and site drainage. Therefore, the proposed project would not result in the construction of any offsite water or wastewater treatment facilities or the expansion of existing facilities, nor would it result in construction of any off-site storm water drainage facilities or expansion of existing facilities.

It should be noted that when a municipal water connection becomes available in the future, the project will be required to connect to the City's water system. Currently the nearest water connection is over 4,000 feet to the south of the project site. Pursuant to Section 508.1 of the 2007 California Fire Code, adopted by the Elk Grove Municipal Code, Section 17.04.010, projects located over 3,000 feet from the City's water system are exempted from connecting to public water. At the time water lines are extended to within 3,000 feet of the site, the project will be required to connect to the system, per City ordinance and the water district requirements. Because the alignment and connection point are not known at this time, this would be covered by a separate environmental review.

The environmental impacts of development on the project site are disclosed and analyzed in the appropriate sections of this MND, and mitigation measures are identified to reduce or eliminate those impacts when feasible. Therefore, environmental impacts associated with new water, wastewater, and stormwater infrastructure would be less than significant.

d) ***Less than Significant Impact.*** The proposed project would receive water from two private groundwater wells on the site, one that is existing (for fire protection) and one that is proposed. As discussed under the Hydrology and Water Quality section of this MND, groundwater for private domestic wells such as the wells on the project site and the wells used to supply the surrounding rural residences are generally supplied by a

shallow aquifer that extends to approximately 200 to 300 feet below the ground surface (bgs). The County of Sacramento Environmental Management Department (EMD), Water Protection Division is responsible for oversight of the construction, modification, repair, inactivation and destruction of wells in Sacramento County, pursuant to Chapter 6.28 of the Sacramento County Code and Section 13801 of the California Water Code (EMD, 2008). The City of Elk Grove General Plan DEIR (SCH# 2002062082) identified that implementation of the General Plan would result in significant and unavoidable impacts associated with the environmental effects of increased water demand. The proposed project would not substantially contribute to the significant and unavoidable impacts to water supply associated with buildout of the General Plan as identified in the DEIR prepared for the General Plan. As explained in the Hydrology and Water Quality section, and section XVII (b) below, of this MND, the projected water demand for the proposed project would not result in a substantial depletion of groundwater supplies. Impacts associated with adequate water supplies are considered less than significant.

f-g) ***Less than Significant Impact.*** The proposed project would receive solid waste service from the current private haulers permitted by the City. Landfills serving the City of Elk Grove have permitted capacity to serve future development consistent with the General Plan (City of Elk Grove, 2003b). AB 939 and the County Integrated Waste Management Plan, which requires recycling programs that result in a 50 percent diversion away from landfills, would apply to the proposed project. Furthermore, the Elk Grove General Plan DEIR (SCH# 2002062082) programmatically analyzed solid waste impacts and identified that implementation of the Elk Grove General Plan would result in less than significant impacts associated with increased demand for solid waste services. Therefore, as landfills would have adequate capacity and the project would be required to comply with any applicable solid waste regulations, solid waste impacts are considered less than significant.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

NOTE: If there are significant environmental impacts which cannot be mitigated and no feasible project alternatives are available, then complete the mandatory findings of significance and attach to this initial study as an appendix. This is the first step for starting the environmental impact report (EIR) process.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wild-life population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

DISCUSSION/CONCLUSION/MITIGATION:

a, c) ***Less Than Significant With Mitigation Incorporated.*** Based on the analysis provided in this IS/MND, potential environmental impacts of the project could adversely affect the environment and human beings, including aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation/traffic and utilities and service systems. However, impacts would be mitigated to less than significant levels through the incorporation of mitigation measures identified in the appropriate sections of this MND.

b) ***Less Than Significant Impact.*** CEQA Guidelines Section 15064(i) states that a lead agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must therefore be conducted in connection with the effects of past projects, other current projects, and probable future projects.

Cumulative impacts resulting from implementation of the General Plan were disclosed and addressed in the General Plan EIR (SCH# 2002062082). The project would not create any significant cumulative impacts beyond those described in the City's General Plan EIR adopted by the City Council in 2003. All potential impacts would be reduced through

implementation of basic regulatory requirements, mitigation measures, and/or conditions of approval incorporated into project design; therefore, impacts would be considered less than cumulatively considerable.

With respect to water supply, for example, buildout conditions under the Elk Grove General Plan would result in the development of the SCWA area, which would in turn result in increased demand for water supply and water treatment facilities. Buildout conditions under the Elk Grove General Plan would result in the development of approximately 23,492 acres with various land uses and an ultimate water demand of approximately 51,487 AF/year (City of Elk Grove, 2008). The proposed Project would result in increased water demand at the project site over existing conditions and could therefore contribute to cumulative water supply impacts.

The proposed Project would use groundwater within the Zone 40 area. As reported in the Water Forum Agreement (WFA), in order to accommodate future demand of 117,600 afy, Zone 40 would rely on a surface water supply consisting of 45,000 afy of firm entitlement and 33,000 afy of intermittent surface supplies (the intermittent supply is subject to reduction in the drier and driest years). The balance of the total demand would be met through the conjunctive use of groundwater supplies. The WFA reports a sustainable yield for the groundwater basin of 273,000 afy, of which approximately 155,000 AF would support agricultural uses and 117,600 afy would support South County municipal and industrial use. Of the 117,600 afy, an average of approximately 41,000 afy would be available for use in Zone 40 over the long-term. Currently, 250,000 AF/year of the 273,000 AF/year sustainable yield is being drawn.

As part of the Water Forum process, the various stakeholder groups negotiated sustainable yields for each of the three groundwater sub-basins within Sacramento County. The negotiated long-term average annual pumping yield for the Central Sacramento Groundwater Basin was set at 273,000 afy, which includes the City limits and portions of the area encompassed by the General Plan, including the Project site. Several projects are planned and projected for construction by SCWA over the next 10 years to meet Zone 40's ultimate water demand.

The proposed Project is required to comply with the City's zoning code and water use restrictions contained within the code as noted above. This project is within the existing AR-5 zone, with existing related development. Water supply is sufficient to supply future needs, including those of the Project, for the required minimum of 20 years for planning purposes. Therefore, impacts to water supply are considered **less than cumulatively considerable.**

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EXHIBIT "B" – MITIGATION MEASURES

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
1.	**MM I-1 Tree Protection/Mitigation Plan** Prior to project approval and following finalization of specific development plans including depiction of information from the Tree Inventory and Summary (as shown in the Initial Arborist Report and Tree Inventory Summary conducted by Sierra Nevada Arborists and dated July 19, 2007), the applicant shall have an ISA-certified arborist review the plans to provide a detailed impact assessment, including identification of trees which may require removal for building construction and other contemplated site development activities. If trees are determined to be in poor condition, they shall be removed per the recommendations of the arborist (regardless of species). For trees greater than 6 inches dbh that are determined to be healthy, a site-specific mitigation plan shall be established by the certified arborist to protect or mitigate for the loss of trees consistent with the Tree Preservation and Protection Ordinance. In addition, any mitigation plan should include the General Preservation recommendations included in the *Initial Arborist Report and Tree Inventory Summary* conducted by Sierra Nevada Arborists, dated July 19, 2007.	*Prior to any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first.*	*City of Elk Grove, Development Services, Planning Department*
2.	**MM I-2 Landscape screening for on-site Water Tanks** The landscaping plan for the proposed project shall include screening for on-site water tanks.	*Prior to the issuance of improvement plans or building permits, whichever occurs first.*	*City of Elk Grove, Development Services, Planning Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
3.	**MM IV-1 Biological pre-construction survey for Burrowing Owl** Within 30 days prior to the start of any construction activity, outside of the western burrowing owl breeding season (September through January), a qualified biologist shall conduct a burrow survey to determine if burrowing owls are present within the project area. If no burrowing owls are detected as part of the preconstruction surveys, no further mitigation is required. If active burrowing owl burrows are detected, the applicant shall implement the following mitigation measures: (1) If burrowing owls are observed on the site, measures such as flagging the burrow and avoiding disturbance, passive relocation, or active relocation to move owls from the site shall be implemented consistent with CDFG protocols (1995) to ensure that no owls or active burrows are inadvertently affected during construction. All measures shall be determined by a qualified biologist in consultation with the California Department of Fish and Game (CDFG). (2) All burrowing owl surveys shall be conducted according to CDFG protocol (1995). The protocol requires, at a minimum, four field surveys of the entire site and areas within 500 feet of the site by walking transects close enough that the entire site is visible. The survey should be at least three hours in length, either from one hour before sunrise to two hours after or two hours before sunset to one hour after. Surveys shall not be conducted during inclement weather, when burrowing owls are typically less active and visible.	*Within 30 day prior to construction and site grading activities or any other site disturbance such as clearing or grubbing*	*City of Elk Grove, Development Services, Planning Department*
4.	**MM IV-2 Swainson's Hawk Foraging Habitat Mitigation** In order to mitigate for the loss of Swainson's hawk foraging habitat, the applicant shall implement one of the following City of Elk Grove's approved mitigation alternatives. Prior to any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first, the project applicant shall:	*Prior to any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first.*	*City of Elk Grove, Development Services, Planning Department in consultation with CDFG, as needed*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	• Preserve similar habitat for each acre lost through a fee title or conservation easement acceptable to the CDFG and the City of Elk Grove as set forth in Chapter 16.130.040(a) of the City of Elk Grove Municipal Code as such may be amended from time to time and to the extent that said chapter remains in effect, OR • Submit payment of Swainson's hawk impact mitigation fee per acre or habitat impacted to the City of Elk Grove in the amount set forth in Chapter 16.130 of the City of Elk Grove Code as such may be amended from time to time and to the extent that said chapter remains in effect, OR • Submit proof that Swainson's hawk foraging habitat mitigation credits have been purchased at the California Department of Fish and Game approved mitigation bank, or from a property owner with available City- approved credits, in the amount set forth in chapter 16.130 of the City of Elk Grove Code as such may be amended from time to time and to the extent that said chapter remains in effect.		
5.	**MM IV-3 Nesting Swainson's Hawk Survey** In order to mitigate for potential adverse impacts to nesting Swainson's hawks, a pre-construction survey and nesting season surveys shall be conducted by a qualified biologist contracted by the applicant or by the City and funded by the applicant. The pre-construction survey shall be conducted within 30 days of the start of construction activities. The nesting season surveys shall be conducted once in April and once in May within 500 feet of the project site. If active Swainson's hawk nests are found, the applicant shall consult with the Department of Fish and Game regarding the appropriate protection measures to implement, which may include halting or postponing land clearing and construction activities until all young have fledged and additional nesting attempts no longer occur. If a nest tree is found on the project site prior to construction and is proposed for removal, then appropriate permits from CDFG shall be obtained and mitigation implemented pursuant to CDFG guidelines. • Prior to issuance of building or grading permits, the applicant shall provide Development Services, Planning Department written verification that a qualified biologist has been retained by the	*Within 30 days of construction activity, such as clearing or grubbing, or grading, building or other site disturbance as indicated in the monitoring actions*	*City of Elk Grove Development Services and CDFG*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	applicant to perform the pre-construction survey. This action may be waived if the biologist will be contracted by the City at the applicant's expense. • No earlier than 30 days before commencement of construction activities, including land clearing, the qualified biologist shall submit and certify to the Planning Director the results of the pre-construction survey. Failure to submit the required survey results will delay the approval to initiate construction activities, including land clearing. • No later than April 30, *the* qualified biologist shall submit and certify to the Planning Director *the results of the 500-foot site perimeter survey.* Failure to submit the required survey results will cause any construction activity to be halted until such results are submitted and approved by the Planning Director. If no construction activities have taken place, failure to submit the required survey results will delay the approval to initiate construction activities, including land clearing. • No later than May 31, the qualified biologist shall submit and certify to the Planning Director the results of the 500-foot site perimeter survey. *Failure to submit the required survey results will cause any construction* activity to be halted until such results are submitted and approved by the Planning Director. If no construction activities have taken place, failure to submit the required survey results will delay the approval to initiate construction activities, including land clearing.		
6.	**MM IV-4 Raptor and Migratory Bird Nesting Surveys** The applicant shall conduct construction activities and vegetation clearing (including shrubs and bushes) to avoid raptor nesting activities, where feasible. No action is necessary if construction will occur during the non-breeding season (September 1 through February 28). 1. If proposed construction activities (including earthmoving or vegetation removal) are planned to occur during the nesting seasons for raptors and migratory birds (typically March 1 through August 31), the applicant shall retain a qualified biologist to conduct a focused survey for active nests of raptors and migratory birds within and in the vicinity of no less than 500 feet	*Within 14 days prior to construction and site grading activities or any site disturbance, such as clearing or grubbing*	*City of Elk Grove, Development Services, Planning Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	outside project boundaries, where possible. 2. Surveys shall occur no more than two weeks prior to ground disturbance or tree removal. 3. If active nests are located onsite or within the buffer area during preconstruction surveys, USFWS and/or CDFG shall be notified regarding the status of the nests. 4. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or a qualified biologist deems disturbance potential to be minimal (in consultation with USFWS and/or CDFG. 5. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment) at a minimum radius of 100 feet around any raptors nest, and 50 feet around the nest for other migratory birds. 6. Restrictions may also include the alteration of the construction schedule. 7. In addition, a qualified wildlife biologist shall monitor the nest(s) to determine when the young have fledged and submit biweekly reports to the City Planning Department throughout the nesting season. The biological monitor shall have the authority to cease construction if there is any sign of distress to the raptor or migratory bird. 8. Reference to this requirement and the MBTA shall be included in the construction specifications.		
7.	**MM IV-5 Special-status Bat Survey** Prior to initiation of construction activity, a bat survey shall be performed by a wildlife biologist or other qualified professional. 1. If bat roosts are identified onsite, the City shall require that the bats be safely flushed from the sites where roosting habitat is planned to be removed prior to	*Prior to construction and site grading activities or the issuance of any permit for grading or building*	*City of Elk Grove, Development Services, Planning Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	maternity roosting season (typically May to August). Flushing of sites shall occur for each construction phase prior to the onset of construction activities. 2. If a female or maternity colony of bats are found on the project site and the project can be constructed without the elimination or disturbance of the roosting colony (e.g., if the colony roosts in an area not planned for removal), a wildlife biologist shall determine what physical and timed buffer zones shall be employed to ensure the continued success of the colony. The City will comply with the recommendation of the biologist to the extent feasible. • Such buffer zones may include a construction-free barrier of 250 feet from the roost and/or the timing of the construction activities outside of the maternity roost season (typically May to August). 3. If an active nursery roost is known to occur onsite and the project cannot be conducted outside of the maternity roosting season, bats shall be excluded from the site after August and before May to prevent the formation of maternity colonies. Non-breeding bats shall be safely evicted, under the direction of a bat specialist.		
8.	**MM IV-6 Wetland Delineation Determination** The City of Elk Grove shall require that a qualified biologist conduct a wetland delineation so as to determine the jurisdictional features that are located within the project area. The applicant shall provide the wetland delineation verification to the City prior to approval of improvement plans that would result in any potential effects to the .17 acres. If feasible, future development shall be designed to avoid all impacts to any jurisdictional waters if found. If jurisdictional waters are found and cannot be avoided, a no net loss policy shall be employed to satisfy General Plan Policy CAQ-9, and the appropriate permits (i.e., Section 404 and 401 under the CWA) shall be obtained prior to issuance of grading permits. The project applicant shall comply with all permit conditions and employ best management practices and measures (established by the permitting authorities and the City) to minimize and compensate for potential impact to any jurisdictional waters. If the 404 Permit process requires additional wetland mitigation and	*Prior to any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first.*	*City of Elk Grove, Development Services, Planning Department, U.S. Army Corps of Engineers, Regional Water Quality Control Board*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	compensation beyond the "no net loss of wetland area" outlined in the City's General Plan Policy CAQ-9, then the project applicant shall implement the requirements of the permit conditions. In addition, wetland delineation and mitigation details shall be noted on the design plans for any future development.		
9.	**MM V-1 Cultural Resources** If cultural resources/historic, archaeological, and paleontological resources (i.e., prehistoric sites, historic sites, and isolated artifacts) are discovered during grading or construction activities on the project site, work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history shall be retained to determine the significance of the discovery. The City shall consider mitigation recommendations presented by a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history for any unanticipated discoveries. The City and project applicant shall consult and agree upon implementation of a measure or measures that the City deems feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project proponent shall be required to implement any mitigation necessary for the protection of cultural resources.	*This measure shall be implemented during all phases of the project and shall be included as a note on all project construction plans*	*City of Elk Grove Development Services, Planning Department*
10.	**MM V-2 Cultural Resources** If, during the course of implementing actions under the New Parish Church project, human remains are discovered, all work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and the County Coroner must be notified according to Section 5097.98 of the State PRC and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.	*This measure shall be implemented during all phases of the project and shall be included as a note on all project construction plans*	*City of Elk Grove, Development Services, Planning Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
11.	**MM VI-1** The house, barn, and other structures located on the northeast portion of the site shall be demolished to accommodate the proposed construction. Following demolition, the concrete slab floors, footing foundations, exterior concrete flatwork and pavement sections shall be completely removed. Any loose soil shall be removed and the resulting excavations shall be scarified to a depth of 8inches, moisture conditioned to at least 2 percent above optimum moisture content, and compacted to at least 90 percent of maximum density as determined by ASTM D1557, modified proctor density.	*As a condition of project building permit approval/during demolition and site preparation and shall be included as a note on all project construction plans*	*City of Elk Grove, Development Services, Planning Department*
12.	**MM VI-2 Abandonment of Underground Utilities** Any underground utilities shall be abandoned. Utilities smaller than 4 inches in diameter may be left in place. Utilities larger than 4 inches in diameter shall be removed, ground solid, or crushed in place and back-filled.	*As a condition of project grading and improvement plan approval/during site preparation and shall be included as a note on all project construction plans.*	*City of Elk Grove, Development Services, Planning and Public Works Department*
13.	**MM VI-3 Remove/Cap Existing Water Wells, Septic Tanks and Leach Lines** Existing water wells, septic tanks and leach lines shall be removed and/or capped in accordance with the Sacramento County Department of Environmental Management Department rules and regulations.	*As a condition of project grading, improvement or building permit approval/during site preparation and shall be noted on all project construction plans*	*City of Elk Grove, Development Services, Planning and Public Works Department*
14.	**MM VI-4 Abandonment of Existing Wells Not In Use** All existing wells not in use or proposed to be continued for use (e.g., well for fire protection), shall be abandoned in accordance with Sacramento County requirements. After clearing operations and any cuts have been made, the exposed	*As a condition of project grading, improvement or building permit*	*City of Elk Grove, Development Services, Planning and Public Works*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	subgrade shall be scarified a minimum of 8 inches and compacted as indicated in Appendix A of the Geotechnical Investigation included as **Appendix D** of this document. Fill placed on building pads and in pavement areas shall be non-expansive and placed as engineered fill as recommended in Appendix A of the Geotechnical Investigation. Soils encountered on the site shall be suitable as engineered fill.	*approval/during site preparation and shall be noted on all project construction plans.*	*Department*
15.	**MM VI-5 Stump Removal** During stump removal, all roots greater than ½ inch in diameter shall be grubbed out. Voids resulting from concrete, asphalt, stump and root or utility removal shall be cleaned out of all loose soil and debris and then scarified, moisture conditioned, and re-compacted as specified in Appendix A of the Geotechnical Investigation (included as **Appendix D** of this document). Voids shall be backfilled with engineered fill as specified in Appendix A.	*As a condition of project grading, improvement or building permit approval/during site preparation and shall be noted on all project construction plans*	*City of Elk Grove, Development Services, Planning Department*
16.	**MM VI-6 Grading During Wet Conditions** The presence of cohesive soils on the project site shall be taken into consideration when planning the site construction schedule to avoid site grading during wet conditions.	*As a condition of project grading, improvement or building permit approval/during site preparation and shall be noted on all project construction plans*	*City of Elk Grove, Development Services, Planning and Public Works Department*
17.	**MM VI-7 Foundation Requirements** If grading is accomplished as specified, foundations for the proposed buildings shall consist of shallow, spread or continuous foundations bearing on compacted native soil, engineered fill, or a combination of both. Foundations shall be designed using a bearing capacity of 2,000 pounds per square foot (psf) for dead plus live loads. If a higher bearing capacity is desired, foundations shall be carried to the underlying hardpan or supported on a minimum 2 feet of engineered fill. The engineered fill may consist of either lean mix concrete (2 sack mix) or over-excavated and compacted soil as specified in Appendix A of the Geotechnical Investigation (**Appendix D** of this	*Prior to issuance of building permit/during construction*	*City of Elk Grove, Development Services, Planning and Building Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	document). With the foundations supported on either hardpan or a minimum 2 feet of engineered fill, a bearing capacity of 3,000 psf for dead and live loads shall be used in design. The above bearing capacities shall be increased by one-third for temporary wind and seismic loads.		
18.	**MM VI-8 Foundation Requirements** The minimum width of all foundations shall be 12 inches. Foundations shall be embedded a minimum depth of 19 inches bellow surrounding grade.	*Prior to issuance of building permit/during construction*	*City of Elk Grove, Development Services, Planning and Building Department*
19.	**MM VI-9** Potential settlement, either immediate or long term, of foundations constructed on compacted native soils and loaded in the matter described above, shall be less than 1 inch total and ½ inch differential across the width of the buildings. Care shall be taken to understand settlements may vary based on actual loads and footing sizes.	*Prior to issuance of building permit/during construction*	*City of Elk Grove, Development Services, Planning and Building Department*
20.	**MM VI-10** To ensure footings have adequate support, special care shall be taken when footings are located adjacent to trenches. The bottom of such footing shall be at least 1 foot below an imaginary plane with an inclination of 1.5 horizontal to 1.0 vertical extending upward from the nearest bottom edge of the adjacent trench.	*Prior to issuance of building permit/during construction*	*City of Elk Grove, Development Services, Planning and Building Department*
21.	**MM VI-11** Lateral resistance for spread footing shall be provided by assuming a passive pressure acting against the side of the footing equal to 300 pounds per cubic foot (pcf)	*Prior to issuance of building permit/during construction*	*City of Elk Grove, Development Services, Planning*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	equivalent fluid pressure. Later resistance shall be provided by computing friction between the bottom of the footing and the soil. A coefficient of friction of 0.30 shall be utilized. If footings are cast against the firm native soil, passive and frictional resistance shall be combined but the passive resistance shall be reduced by 50 percent. A monitor shall observe the completed footing excavation to verify that suitable bearing material has been encountered.		*and Building Department*
22.	**MM VI-12** Moisture transmission through concrete slab-on-grade floors shall be protected by placing a capillary break and a vapor retarder beneath the slab.	*Prior to issuance of building permit/during construction*	*City of Elk Grove, Development Services, Planning Department*
23.	**MM VI-13** There are additional measures that may be incorporated to further reduce, but not eliminate the rise. Some (but not all) of these measures include using concrete with a water-cement ratio less than 0.45, employing a qualified testing laboratory to provide materials testing and quality control during concrete placement and curing, using topical concrete sealers, installing water stops at cold joints between the foundation and slab on grade, sealing the vapor retarder where plumbing penetrations occur, limiting the use of vinyl and wood flooring, and testing the concrete slab for moisture transmission rates immediately prior to replacement of floor coverings. These measures shall be considered if additional protection is desired.	*Prior to issuance of building permit/during construction*	*City of Elk Grove, Development Services, Planning and Building Department*
24.	**MM VI-14** The upper 12 inches of all building pads shall be scarified and compacted as engineered fill. Four inches of clean ¾ inch gravel shall be placed beneath the slabs	*Prior to issuance of building permit/during construction*	*City of Elk Grove, Development Services, Planning and Building*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	on grade. The gravel shall be covered by an impervious vapor retarder such as 10 mil sheet vinyl or equivalent. The vapor retarder shall be continuous and lapped a minimum of 2 feet and draped down the side of the footings at least 1 foot. The vapor retarder shall be covered by 2 inches of sand to protect it during construction and to aid in curing the concrete. This sand shall meet the requirement of ACI 302.1R. Sand shall be sand or silty sand containing no more than 20 percent passing the No. 200 sieve. Alternative materials must be approved by the geotechnical engineer prior to being brought to the site.		*Department*
25.	**MM VI-15** The sand shall be moist but not saturated at the time of concrete placement. If the sand is saturated or free water is visible, the concrete shall not be placed until the sand is dried sufficiently to only be moist or is replaced. If construction takes place in winter, sand shall be substituted for 3/8-inch pea gravel. The pea gravel may not be saturated. Free water must not be visible on the gravel. If the gravel is saturated, it must be dried sufficiently to only be moist or be replaced prior to placement of concrete. Exterior finish grades shall be below the floor subgrade level unless special drainage and waterproofing features are employed to reduce the potential for moisture migration under the slab.	*As a condition of project building permit approval/during construction and shall be noted on all project construction plans*	*City of Elk Grove, Development Services, Planning and Building Department*
26.	**MM VI-16 Retaining Wall** Site retaining walls shall be constructed. Retaining walls shall be subject to lateral earth pressures.	*Prior to issuance of building /during construction*	*City of Elk Grove, Development Services, Planning Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
27.	**MM VI-17 Retaining Wall Requirements** A calculated at-rest earth pressure of 50 pcf equivalent fluid density shall be used for retaining walls which are restrained from rotating at the top. A calculated active earth pressure of 40 pcf equivalent fluid density shall be used for site retaining walls which are allowed to rotate at the top. The above active earth pressure assumes the retaining wall will support a backslope no steeper that 5:1 (H:V). Backfill will come from onsite soils. Footings shall be designed for lateral load resistance with a passive earth pressure of 300 pcf. The hydrostatic pressure on the retaining walls shall be relieved using drains behind the walls connected to tight lines.	*Prior to issuance of building permit or improvement plan/during construction*	*City of Elk Grove, Development Services, Planning Department*
28.	**MM VI-18 Adequate Drainage** Special care shall be taken to ensure adequate drainage is provided throughout the life of the structures. Appropriate downspout extensions from roof drainage shall fall on splash blocks a minimum of 2 feet from the structure or be connected to tight lines that drain away from the buildings. Any flatwork adjacent to buildings shall slope a minimum of 1 percent for a distance of 5 feet. Exposed exterior subgrade (soil or non-paved areas) shall slope away from the structures at a minimum slope of ½ inch per foot for a distance of 8 to 10 feet beyond the building perimeters. If this grade is unable to be obtained, proper drainage inlets will need to be placed to carry surface water away from the foundations.	*Prior to issuance of building permit or improvement plans /during construction*	*City of Elk Grove, Development Services, Public Works Department*
29.	**MM VI-19 Landscaping Drainage** Care shall be taken to ensure that landscaping is not excessively irrigated and to ensure that landscaping drains away from the structures. Implementation of adequate drainage for this project can effect the surrounding developments. In addition to designing and constructing drainage for the site, the affects of site drainage must be taken into consideration for surrounding sites.	*Prior to issuance of building permit and/or improvement/landscape plans/during construction*	*City of Elk Grove, Development Services, Public Works Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
30.	**MM VI-20 Review of Foundation/Grading Plans** Neil O. Anderson and Associates shall review completed foundation and grading plans to verify that the recommendations of the Geotechnical Investigation have been properly interpreted and incorporated. Neil O. Anderson and Associates shall also be retained by the applicant to perform recommended grading observations, compaction testing, and foundation excavation inspections.	*Prior to issuance of building permit /during construction*	*Development Services, Planning Department*
31.	**MM VI-21 Pavement Designs** Pavement design sections shall be as follows:	*Prior to issuance of improvement plans/during site preparation*	*City of Elk Grove, Development Services, Public Works Department*

FLEXIBLE PAVEMENT SECTION DESIGN

Subgrade R-Value	Traffic Index	Traffic	Pavement Section, inches	
			Asphalt Concrete	Aggregate Base
25	3.5	Auto Parking	2.0	4.5
25	5.0	Auto Drives	2.5	7.5
25	6.0	Truck Drives/Fire Lanes	3.0	9.5

Concrete pavement sections have been designed utilizing the Portland Cement Associations manual Thickness Design for Concrete Highway and Street Pavements. Design is based on a 20-year pavement life. The rigid pavement sections are as follows:

RIGID (CONCRETE) PAVEMENT SECTION DESIGN

Subgrade Strength	Traffic Pattern	Concrete Pavement	Pavement Section, inches	
			Compressive Strength, psi	Aggregate Base
Medium	13 trucks per	6.5	2,500	4.0

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)

Medium	day 6 trucks per day	6.0	2,500	4.0	

The paving materials must conform to the requirements of the State of California, Department of Transportation, Standard Specifications, latest edition. Type B asphalt concrete and class 2 aggregate base shall be used. The subgrade shall have a minimum R-value of 25. The pavement area shall be stripped of all organic matter, loose soil, etc., and any required cuts or fills shall be made. A minimum of 8 inches of compacted subgrade shall be provided beneath the pavement sections. The subgrade shall be compacted to dry densities in excess of 95 percent of the maximum dry density obtainable by the ASTM D1557 test method.

32.	**MM VI-22 Landscape and Irrigation Planters** Landscaped and irrigated planters that are constructed adjacent to pavement shall have cut-off curbing constructed around them that extends a minimum of 4 inches into the subgrade soil.	*Prior to issuance of improvement plans /during site preparation*	*City of Elk Grove, Development Services, Public Works Department*
33.	**MM VI-23 Excavations Requirements** Soils encountered in test holes classify as Type C soils. A maximum slope of 1.5:1 (horizontal to vertical) maximum slope shall be required for excavations less than 20 feet deep. The contractor shall have a competent person identify all soils encountered in excavation and refer to OSHA and Cal-OSHA standards to determine appropriate methods to protect individuals working in excavations.	*As a condition of project grading and improvement plan approval/during site preparation and shall be noted on all project construction plans*	*City of Elk Grove, Development Services, Public Works Department*
34.	**MM VI-24 Backfill in Trenches Requirements** Backfill placed in trenches shall be placed in approximately 8-inch lifts in uncompacted thickness.	*Prior to the issuance of building permits or improvement plans/during site preparation and shall be noted on all project construction*	*City of Elk Grove, Development Services, Public Works Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
		plans	
35.	**MM VI-25 Design Calculations for both Deep Trench and Deep Pit Disposal Field** Design calculations for both a deep trench and deep pit disposal field shall be included in the project design to ensure that the on-site soils are capable of adequately supporting the proposed septic system.	*Prior to issuance of improvement/grading plans/during project construction*	*City of Elk Grove, Development Services, Public Works Department*
36.	**MM VI-26 Onsite Septic System** The onsite septic system constructed on the project site shall consist of either a deep trench or a deep pit disposal field as specified in the Onsite Waste Water Disposal System Feasibility Study conducted for the project site by Neil O. Anderson and Associates (dated October 5, 2007).	*Prior to issuance of improvement/grading plans/during project construction*	*City of Elk Grove, Development Services, Public Works Department*
37.	**MM VI-27 Onsite Waste Water Disposal Study** All recommendations, design criteria, and specifications set forth in the "Onsite Waste Water Disposal System Feasibility Study" conducted for the project site by Neil O. Anderson and Associates (dated October 5, 2007, pages 5 - 9) shall be followed, including but not limited to those regarding: • loading rate; • required side wall area of deep trench; • required length of deep trench; • additional Sacramento County design criteria; and • required tank size and disposal area	*Prior to issuance of improvement/grading or building permit/during project construction*	*City of Elk Grove, Development Services, Public Works Department*
38.	**MM VII-1 Asbestos Survey and Abatement** The Category 1 non-friable vinyl floor tile and the friable RACM sheet vinyl flooring identified in the main house on the project site (as identified in the Asbestos Survey conducted by ESS Environmental dated June 29, 2007) shall be properly abated and disposed of by a certified, licensed, and insured asbestos abatement contractor prior to demolition activities. The contractor shall perform in full compliance with all local, state, and federal regulations. The contractor shall also fully comply with notification	*Prior to the proposed demolition activities*	*City of Elk Grove, Development Services, Planning Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	requirements to the California Division of Occupational Safety and Health (Cal-OSHA) and the Sacramento Metropolitan Air Quality Management District (SMAQMD).		
39.	**MM VII-2 Lead Abatement** A licensed lead abatement contractor shall conduct a survey to determine the presence or absence of lead-based paint or lead-contaminated soils on the project site. All recommendations, abatement measures, and specifications set forth in the survey shall be followed.	*Prior to the proposed demolition activities*	*City of Elk Grove, Development Services, Planning Department*
40.	**MM VII-3 Pesticide Assessment** The applicant shall assess the property for the potential presence of pesticides due to previous agricultural activities on the project site, soil samples shall be collected for analysis of organochlorine pesticides. The sampling and analysis strategies shall be based on recommendations presented in the California Department of Toxic Substances Control's April 2008 *Interim Guidance for Sampling Agricultural Fields (3rd Revision)* and the June 2006 *Interim Guidance Evaluation of School Sites with Potential Soil Contamination as a Result Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides and Polychlorinated Biphenyls from Electrical Transformers.*	*Prior to any site disturbance, such as clearing or grubbing, or issuance of any permits for grading, building, or other site improvements, whichever occurs first*	*City of Elk Grove, Development Services, Planning Department*
41.	**MM VII-4 Debris Disposal** The debris piles on the project site shall be collected for appropriate disposal prior to development on the project site. Environmental oversight shall be provided during site grading activities for unidentified waste pits.	*Prior to and during the proposed construction activities and shall be noted on all project construction plans*	*City of Elk Grove, Development Services, Planning Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
42.	**MM VII-5 Diesel Drum Requirements** The 55-gallon diesel drum on the project site shall be stored properly with secondary containment.	*Prior to the proposed construction activities and shall be noted on all project construction plans*	*City of Elk Grove, Development Services, Planning Department*
43.	**MM VII-6 Geophysical Survey** A geophysical survey shall be conducted to determine the presence or absence of a UST on the project site. All recommendations and specifications set forth in the survey shall be followed to the extent those recommendations do not conflict with the requirements set forth in the regulations governing UST detection and remediation.	*Prior to Issuance of any permit for grading, building, or other improvements, whichever occurs first*	*City of Elk Grove, Development Services, Planning Department*
44.	**MM VIII-1 SWPPP** Prior to the issuance of grading permits, the project applicant shall prepare a Stormwater Pollution and Prevention Plan (SWPPP) to be administered through all phases of grading and project construction. The SWPPP shall incorporate best management practices (BMPs) which describe the site, erosion and sediment controls, means of waste disposal, control of post-construction sediment and erosion control measures and maintenance responsibilities, water quality monitoring and reporting during storm events (which will be responsibility of the project applicant), corrective actions for identified water quality problems and non-stormwater management controls. The SWPPP shall address spill prevention and include a countermeasure plan describing measures to ensure proper collection and disposal of all pollutants handled or produced on the site during construction, including sanitary wastes, cement, and petroleum products. The measures included in the SWPPP shall ensure compliance with applicable regional, state and federal water quality standards. These measures shall be consistent with the City's Drainage Manual and Land Grading and Erosion Control Ordinance which may include (1) restricting grading to the dry season; (2) protecting all finished graded slopes from erosion using such techniques as erosion control matting and hydroseeding; (3) protecting downstream storm drainage facilities from sedimentation; (4) use of silt fencing and hay bales to retain sediment on the project site; (5) use of temporary water conveyance and water diversion structures to eliminate runoff; and (6) any other suitable measures. The SWPPP shall be submitted to the City for review. The	*Prior to issuance of grading permits*	*City of Elk Grove, Development Services, Public Works Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	applicant shall require all construction contractors to retain a copy of the approved SWPPP on each construction site.		
45.	**MM VIII-2 BMP's** The project shall implement specific best management practices (BMPs) to ensure that long-term water quality is protected. The BMPs shall be designed, constructed, and maintained to meet a performance standard established by the City and shall conform to the provisions of the City's NPDES permit. BMPs may include, but are not limited to: scheduling or limiting construction activities to certain times of year, prohibitions of practices, maintenance procedures, installation of silt fences, hydroseeding, hydraulic mulch, soil binders, straw mulch, fiber rolls, earthen dikes and drainage swales, velocity dissipation devices, sediment traps, inlet filters, tire washes and other management practices that could be used during construction of the proposed project (see California Stormwater Quality Association's *Stormwater Best Management Practices Handbook for Construction)*. The project applicant shall retain a qualified specialist to monitor the effectiveness of the BMPs selected. Monitoring activities, along with funding for monitoring, shall be established and shall include, but not be limited to, initial setup, annual maintenance, and annual monitoring.	*BMPs and implementation procedures shall be submitted and approved by the City prior to issuance of grading permit; BMPs shall be implemented and monitored throughout the construction of the project.*	*City of Elk Grove, Development Services, Public Works Department*
46.	**MM VIII-3 Biofiltration** Biofilter swales and vegetated strips shall be placed in the bottom of channel areas and be designed to provide biofiltration of pollutants in project runoff. The project engineer shall consult with the City when designing these areas, and the developer shall submit designs of the areas to the City for review and approval prior to approval of the improvement plans. Water quality control features shall be consistent with the City's NPDES Permit No. CAS082597.	*Prior to approval of improvement plans*	*City of Elk Grove, Development Services, Public Works Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
47.	**MM VIII-4 Storage Requirements** All storage areas shall be located away from any drainage features and water quality control measures, such as grease and sediment traps and vegetative filters, shall be located in storm drainage facilities. This requirement shall be reflected on site plans and improvement plans. Water quality control features shall be consistent with the City's NPDES Permit No. CAS082597.	*Prior to approval of improvement plans and shall be noted on all project construction plans*	*City of Elk Grove, Development Services, Planning Department*
48.	**MM VIII-5 Detention Basin** The project engineer shall consult with the City when designing the proposed detention basin. The detention basin shall be designed to accommodate a 100-year storm event. The developer shall submit detention basin designs and proposed plantings for within and around the detention basin for review and approval by the City. Development of the detention basin shall be subject to BMPs identified for the project.	*Prior to issuance of grading permits or approval of improvement plans*	*City of Elk Grove, Development Services, Public Works Department*
49.	**MM XI-1 Sound Wall** A 6-foot-high soundwall constructed of concrete masonry, solid concrete panels, earthen berms or a combination of earthen berm and wall shall be constructed to achieve compliance with the City of Elk Grove 60 dB L_{dn} exterior noise level standard for the outdoor area of the proposed rectory. The proposed barrier shall be reviewed by an acoustical consultant to ensure that the barrier meets the requirements of a sound-attenuating traffic noise barrier. Potential soundwall locations are shown in **Figure 6**. or In lieu of a soundwall, one of the following noise reduction options shall be employed: • Construct a 6-foot-high landscaped berm between the	*Prior to issuance of improvement plans/during construction*	*City of Elk Grove, Development Service, Planning Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	outdoor activity area of the rectory and Bradshaw Road; or • Reorient the rectory to fully shield the outdoor area; or • Relocate the rectory farther from Bradshaw Road to a distance of approximately 450 feet or greater.		
50.	**MM XI-2 Noise Analysis** A detailed interior noise analysis shall be conducted when building plan details are available for Phase 3 of the church building. If the results of the study show that interior noise levels do not meet City Standards, appropriate mitigation measures such as higher rating windows and wall insulation and/or building materials and/or others measures as recommended by the noise consultant shall be implemented to achieve compliance with the City's interior noise level requirements.	*Prior to issuance of building permits for Phase 3*	*City of Elk Grove, Development Service, Planning Department*
51.	**MM XI-3 Noise Barrier** A 6-foot-high noise barrier shall be constructed to reduce noise levels at the residential property line to the north. The barrier is predicted to reduce basketball and related noise levels to 46 dB L_{eq}. Potential sound wall locations are shown in **Figure 7**. or A 6-foot-high landscaped berm shall be constructed between the north property line and the basketball courts; or The setback of the basketball courts from the north property line shall be increased by approximately 50 feet.	*Prior to issuance of improvement plans/ during construction*	*City of Elk Grove, Development Service, Planning Department*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
52.	**MM XV-1 Traffic Improvements** The applicant shall be required to construct the following improvement, to the satisfaction of the Director of Public Works: The northbound approach to the Sheldon Road/Waterman Road intersection shall be widened to include a separate left-turn lane and a shared through-right-turn lane. Widening to provide a separate left-turn lane would create an offset for vehicles traveling northbound through the intersection. To provide an alignment through the intersection that is more intuitive for drivers and that would minimize the offset, separate left-turn lanes need to be constructed on both northbound and southbound approaches. Construction of left-turn lanes on these approaches assumes that the intersection remains all-way stop controlled. Additional improvements would be necessary at the time of signalization due to higher travel speeds.	*Prior to issuance of building permit for Phase 2 (K-8 school)*	*City of Elk Grove, Development Services, Public Works*
53.	**MM XV-2 Traffic Improvements** The applicant shall be required to construct the following improvement, to the satisfaction of the Director of Public Works: The eastbound approach to the intersection of Sheldon Road/Bradshaw Road shall be widened to include a separate left-turn lane and a shared through-right-turn lane. Separate left-turn lanes shall be constructed on both eastbound and westbound approaches. These improvements are anticipated to require relocation of the flashing beacon on the northwest corner of the intersection. Construction of left-turn lanes on these approaches assumes that the intersection remains all-way stop-controlled. Additional improvements shall be installed at the time of signalization due to higher travel speeds.	*Prior to issuance of building permit for Phase 2 (K-8 school)*	*City of Elk Grove, Development Services, Public Works*
54.	**MM XV-3 Traffic Improvements**	*Prior to issuance of building permit for*	*City of Elk Grove, Development*

	MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
	The applicant shall be required to construct the following improvement, to the satisfaction of the Director of Public Works: The northbound approach for the intersection of Sheldon Road/Waterman Road shall be widened to provide a separate left-turn lane and a shared through-right-turn lane. Widening to provide a separate left-turn lane would create an offset for vehicles traveling northbound through the intersection. To provide an alignment through the intersection that is more intuitive for drivers and that would minimize the offset, separate left-turn lanes need to be constructed on both northbound and southbound approaches. Construction of left-turn lanes on these approaches assumes that the intersection remains all-way stop controlled. Additional improvements would be necessary at the time of signalization due to higher travel speeds.	*Phase 2*	*Services, Public Works Department*
55.	**MM XV-4 Traffic Improvements** The applicant shall be required to construct the following improvement, to the satisfaction of the Director of Public Works: The westbound approach for the intersection of Sheldon Road/Bradshaw Road shall be widened to provide a separate left-turn lane and shared through-right-turn lane. Due to the physical constraint created by the bridge abutment on the westbound approach, widening to provide a separate left-turn lane would create an offset for vehicles traveling westbound through the intersection. To provide an alignment through the intersection that is more intuitive for drivers and that would minimize the offset, separate left-turn lanes need to be constructed on both eastbound and westbound approaches. It is anticipated that these improvements would require relocation of the flashing beacon on the northwest corner of the intersection. Construction of left-turn lanes on these approaches assumes that the intersection remains all-way stop controlled. Additional improvements would be necessary at the time of signalization due to higher travel speeds.	*Prior to issuance of building permit for Phase 2*	*City of Elk Grove, Development Services, Public Works Department*
56.	**MM XVI-1 Construction of Septic System** Prior to issuance of occupancy permit, on-site septic infrastructure must be	*Prior to issuance of the first occupancy permit*	*City of Elk Grove, Development Services, Public*

MITIGATION MEASURES	TIMING / IMPLEMENTATION	ENFORCEMENT / MONITORING (DATE & SIGN)
constructed and the project applicant must provide verification that a septic system permit from the Sacramento EMD has been approved.		*Works Department*

CERTIFICATION
ELK GROVE CITY COUNCIL RESOLUTION NO. 2010-27

STATE OF CALIFORNIA)
COUNTY OF SACRAMENTO) ss
CITY OF ELK GROVE)

I, Susan J. Blackston, City Clerk of the City of Elk Grove, California, do hereby certify that the foregoing resolution was duly introduced, approved, and adopted by the City Council of the City of Elk Grove at a regular meeting of said Council held on January 27, 2010 by the following vote:

AYES :	*COUNCILMEMBERS:*	*Scherman, Cooper, Davis, Hume*
NOES:	*COUNCILMEMBERS:*	*Detrick*
ABSTAIN :	*COUNCILMEMBERS:*	*None*
ABSENT:	*COUNCILMEMBERS:*	*None*

Susan J. Blackston, City Clerk
City of Elk Grove, California