

INITIAL STUDY & ENVIRONMENTAL CHECKLIST

Project Title/File Number	Bridgeway Christian Church, PL14-0389
Project Location	8150 Industrial Avenue
Project Description	The applicant requests approval of a Conditional Use Permit to allow a community assembly use (Bridgeway Christian Church) to operate within a General Industrial (M2) zone, and a Design Review Permit Modification to allow a small expansion of an existing building.
Project Applicant	Justin Storm, Bridgeway Christian Church
Property Owner	John Apostolos, Consolidated Communications
Lead Agency Contact	Lauren Hocker, Associate Planner; Phone: (916) 774-5272

This initial study has been prepared to identify and assess the anticipated environmental impacts of the above-described project. The document relies on previous environmental documents and site-specific studies prepared to address in detail the effects or impacts associated with the project (see Attachment 1 and 2). Where documents were submitted by consultants working for the applicant, City staff reviewed such documents in order to determine whether, based on their own professional judgment and expertise, staff found such documents to be credible and persuasive. Staff has only relied on documents that reflect their independent judgment, and has not accepted at face value representations made by consultants for the applicant.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA), (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (14 CCR 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

The initial study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to prepare an EIR, use a previously prepared EIR and supplement that EIR, or prepare a subsequent EIR to analyze the project at hand. If the agency finds no substantial evidence that the project or any of its aspects may cause a significant effect on the environment, a negative declaration shall be prepared. If in the course of analysis, the agency recognizes that the project may have a significant impact on the environment, but that by incorporating specific mitigation measures the impact will be reduced to a less than significant effect, a mitigated negative declaration shall be prepared.

In reviewing the site-specific information provided for this project, the City of Roseville Planning Division has analyzed the potential environmental impacts created by this project and determined that with mitigation the impacts are considered to be less than significant. As demonstrated in the initial study checklist, there are no "project specific significant effects which are peculiar to the project or site" that cannot be reduced to less than significant effects through mitigation (CEQA Section 15183) and therefore an EIR **is not** required. Therefore, **on the basis of the following initial evaluation**, we find that the proposed project **could not** have a significant effect on the environment, and a **Mitigated Negative Declaration** will be prepared.

Prepared by: original signature on file Date: 12.18.14
Lauren Hocker, Associate Planner

PROJECT DESCRIPTION

The site is completely developed, with 207,782 square feet of building area, but Bridgeway proposes to occupy only two of the buildings. Building A is 110,638 square feet, and will be used for church services, Sunday-school, general gatherings, and offices. Building B is 5,627 square feet and will be used for offices. Many interior modifications to Building A will be made in order to suit Bridgeway's needs, but there will only be one minor exterior change to the building. The interior space which will be used for the sanctuary is 11,500 square feet, and Bridgeway proposes an expansion to 14,750 square feet by moving the north wall outward by 33 feet. Interior modifications will include moving walls to restructure the space for classrooms, the enlargement of the existing kitchen, and many facility upgrades to bring the building up to modern Fire and Building Codes.

Monday through Friday the site will generally be used for administrative purposes and for small-group adult classes, such as bible study, Christian education, fellowship meetings, and prayer meetings. Small-group sessions could have as many as 250 attendees but would generally be much smaller. The bulk of these classes occur after 5 pm so the programs do not conflict with the typical work hours of people who may wish to attend. The administrative component of Bridgeway operates Tuesday through Thursday from 9 am to 5 pm, and includes 35 employees.

Saturdays and Sundays would primarily be dedicated to worship services. The new sanctuary will have a capacity of 1,375 people, though based on current congregation numbers, Bridgeway expects that they will operate under capacity during most of the year. Bridgeway holds two services on Saturday and two services on Sunday. A typical service is 1.5 hours, leaving a 30 minute gap between services. Average attendance is as follows:

Saturday 4 pm: 468 attendees

Saturday 6 pm: 311 attendees

Sunday 9 am: 660 attendees

Sunday 11 am: 1,003 attendees

In addition to these regular services, Bridgeway typically offers expanded services for the Easter and Christmas holy days. This will usually involve the addition of two Friday night services and a Sunday sunrise service for Easter, and three Christmas Eve services for Christmas. It is during these times that the sanctuary may approach or reach maximum capacity. Bridgeway also offers Vacation Bible School—a children's program—for one week in July; the program is typically offered Monday through Thursday from 9 am to 3 pm.

ENVIRONMENTAL SETTING

The 22.1-acre project site is located at 8150 Industrial Avenue, approximately ¼-mile north of the intersection of Washington Boulevard and Industrial Avenue. The eastern side of the site has frontage on Washington Boulevard while the western side of the site has frontage on Industrial Avenue. The property includes two driveways onto Industrial Avenue and one onto Washington Boulevard. In this location, Industrial Avenue is a two-lane roadway with a center turning lane and a bicycle lane. Washington Boulevard is a three-lane facility, with two northbound lanes and one southbound lane, plus a center turning lane and a bicycle lane.

The site is fully developed with multiple buildings, landscaping planters, a parking lot (including covered parking), and other structures. Property to the south is an undeveloped area dominated by a mix of native and non-native grasses, and it includes an area of wetlands which were created as mitigation. The mitigation was required as part of the original development of the project site, which was approved in 1992. Property to the north is developed with multiple buildings housing a variety of businesses, including an indoor softball training school, a children's party facility, and other uses. The land to the east, across Washington Boulevard, is developed with single-family homes and a Middle School. The land to the west, across Industrial Avenue, includes an electrical substation, railroad tracks, and a large industrial property.

UNIFORMLY APPLIED POLICIES AND STANDARDS

For projects that are consistent with the development density established by existing zoning, community plan, or

general plan policies for which an EIR was certified, CEQA Guidelines section 15183, as noted earlier, allows a lead agency to rely on previously adopted development policies or standards as mitigation for the environmental effects, when the standards have been adopted by the City, with findings based on substantial evidence, that the policies or standards will substantially mitigate environmental effects, unless substantial new information shows otherwise (CEQA Guidelines §1583(f)). The City of Roseville adopted CEQA Implementing Procedures (Implementing Procedures) which are consistent with the CEQA Guidelines section. The current version of the Implementing Procedures were adopted in April 2008, along with Findings of Fact, as Resolution 08-172. The below regulations and ordinances were found to provide uniform mitigating policies and standards, and are applicable to development projects. The City's Mitigating Policies and Standards are referenced, where applicable, in the Initial Study Checklist.

- Noise Regulation (RMC Ch.9.24)
- Flood Damage Prevention Ordinance (RMC Ch.9.80)
- Traffic Mitigation Fee (RMC Ch.4.44)
- Drainage Fees (Dry Creek [RMC Ch.4.49] and Pleasant Grove Creek [RMC Ch.4.48])
- Urban Stormwater Quality Management and Discharge Control Ordinance (RMC Ch. 14.20)
- Stormwater Quality Design Manual (Resolution 07-432)
- City of Roseville Design/Construction Standards (Resolution 07-137)
- Tree Preservation Ordinance (RMC Ch.19.66)¹
- Subdivision Ordinance (RMC Title 18)
- Community Design Guidelines (Resolution 95-347)
- North Industrial Specific Plan and Design Guidelines (Resolution 04-40)

OTHER ENVIRONMENTAL DOCUMENTS RELIED UPON

- Sierra Vista Specific Plan Final Environmental Impact Report
- Subsequent EIR & Roseville 2020 Transportation System Capital Improvement Program Update
- Initial Study and Negative Declaration for the Roseville Telephone Facility

Pursuant to CEQA Guidelines Section 15183, any project which is consistent with the development densities established by zoning, a Community Plan, or a General Plan for which an EIR was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site.

The Sierra Vista Specific Plan project included an overall Amendment of the City of Roseville General Plan, including updates to policy text. The Final Environmental Impact Report prepared for the Sierra Vista Specific Plan included an analysis of the updated General Plan land use designations and policies, including amending the General Plan from a 2020 to a 2025 horizon year. The proposed project is consistent with the adopted General Plan land use designations. This analysis included an updated city-wide traffic analysis and a corresponding update to the City's Capital Improvement Program. This analysis relies on the above environmental documents to adequately disclose and mitigate City-wide and cumulative effects.

An Initial Study leading to a Negative Declaration was prepared for development of the subject property with the existing facilities. This analysis covered all of the physical impacts which were anticipated as a result of developing the site with the facilities which now exist, and all mitigation relating to that project has been completed.

This Initial Study focuses on effects particular to the specific project site, impacts which were not analyzed within prior environmental documents, and impacts which may require revisiting due to substantial new information. When applicable, the topical sections within the Initial Study summarize the findings within the aforementioned environmental documents. The analysis, supporting technical materials, and findings of the environmental documents listed above are incorporated by reference, and are available for review at the Civic Center, 311 Vernon Street, Roseville, CA.

¹ Note that the Tree Preservation Ordinance was moved into the Zoning Ordinance as Section 19.66.

EXPLANATION OF INITIAL STUDY CHECKLIST

The California Environmental Quality Act (CEQA) Guidelines recommend that lead agencies use an Initial Study Checklist to determine potential impacts of the proposed project to the physical environment. The Initial Study Checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by this project. This section of the Initial Study incorporates a portion of Appendix “G” Environmental Checklist Form, contained in the CEQA Guidelines.

There are four (4) possible answers to the Environmental Impacts Checklist on the following pages. Each possible answer is explained herein:

- 1) A “Potentially Significant Impact” is appropriate if there is enough relevant information and reasonable inferences from the information that a fair argument based on substantial evidence can be made to support a conclusion that a substantial, or potentially substantial, adverse change may occur to any of the physical conditions within the area affected by the project. When one or more “Potentially significant Impact” entries are made, and EIR is required.
- 2) A “Potentially Significant Unless Mitigation Incorporated” answer is appropriate where the applicant has agreed to incorporate a mitigation measure to reduce an impact from “Potentially Significant” to a “Less than Significant.” For instance, impacts to flood waters could be reduced from a “potentially significant impact” to a “less than significant impact” by relocating a building to an area outside of the floodway. The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level. Mitigation measures are identified as MM followed by a number.
- 3) A “Less Than significant Impact” answer is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant, or that the application of development policies and standards to the project will reduce the impact(s) to a less than significant level. For instance, the application of the City’s Improvement Standards reduces potential erosion impacts to a less than significant impact.
- 4) A “No Impact” answer is appropriate where it can be clearly seen that the impact at hand does not have the potential to adversely affect the environment. For instance, a project in the center of an urbanized area will clearly not have an adverse effect on agricultural resources or operations.

All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project level, indirect as well as direct, and construction as well as operational impacts.

A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources cited in the parentheses following each response. A “No Impact” answer should be explained where it is based on project-specific factors as well as generous standards.

The Initial Study checklist recommended by the CEQA Guidelines is used to describe the potential impacts of the proposed project on the physical environment.

II. Aesthetics

The Findings of the Implementing Procedures indicate that compliance with the Zoning Ordinance (e.g. building height, setbacks, etc), Subdivision Ordinance (RMC Ch. 18), Community Design Guidelines (Resolution 95-347), and applicable Specific Plan and/or Specific Plan Design Guidelines will prevent significant impacts related to items a, b, and c, below. Would the project:

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

- a–b) There are no designated or eligible scenic vistas or scenic highways within or adjacent to the City of Roseville.
- c) The project involves only a small area of exterior work on the buildings; the balance of the work involves changes to the building interiors, which will not be visible. The area where work is being performed on the exterior is not easily visible from a public right-of-way, and the only existing viewer groups who could observe the change are people driving by on Industrial Avenue. The minor change is not likely to be noticeable, and will not degrade the existing visual environment.
- d) The site already includes parking lot and building lighting. Though some additional lighting will be included on the exterior of the small addition, the addition of a few more exterior lights on a site which already includes many nighttime lighting sources will have no measurable impact on ambient light conditions. The project does not include any elements which would introduce sources of glare.

II. Agricultural Resources

The State Department of Conservation oversees the Farmland Mapping and Monitoring Program, which was established to document the location, quality, and quantity of agricultural lands, and the conversion of those lands over time. The primary land use classifications on the maps generated through this program are: Urban and Built Up Land, Grazing Land, Farmland of Local Importance, Unique Farmland, Farmland of Statewide Importance, and Prime Farmland. Only the latter three categories are called out as protected farmland categories within CEQA Guidelines Appendix G.

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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 or conversion of forest land to non-forest use?				X

a–c) According to the California Department of Conservation Placer County Important Farmland Map (2010), the majority of the City of Roseville is designated as Urban and Built Up Land, most of the open space areas of the City are designated as Grazing Land, and there is one area designated as Farmland of Local Importance. None of the land within the City boundaries is designated as a protected farmland category (Prime, Statewide Importance, or Unique Farmland). The current Williamson Act Contract map (2013/2014) produced by the Department of Conservation shows that there are no Williamson Act contracts within the City, and only one (on PFE Road) that is adjacent to the City. None of the land within the City is considered forest land by the Board of Forestry and Fire Protection. The project site is not used for agricultural purposes, and does not include agricultural zoning. Given the foregoing, the proposed project will have no impact on agricultural resources.

III. Air Quality and Greenhouse Gases

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:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?				X
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
g) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

a-b) The City of Roseville, along with the south Placer County area, is located in the Sacramento Valley Air Basin (SVAB). The SVAB is within the Sacramento Federal Ozone Non-Attainment Area. Under the Clean Air Act, Placer County has been designated a "serious non-attainment" area for the federal 8-hour ozone standard, "non-attainment" for the state ozone standard, and a "non-attainment" area for the federal and state PM₁₀ standard (particulate matter less than 10 microns in diameter). Within Placer County, the Placer County Air Pollution Control District (PCAPCD) is responsible for ensuring that emission standards are not violated. Project-related air emissions would have a significant effect if they would result in concentrations that either violate an ambient air quality standard or contribute to an existing air quality violation. To assist in making this determination, the PCAPCD developed thresholds of significance, which were developed by considering both the health-based ambient air quality standards

and the attainment strategies outlined in the SIP. The PCAPCD-recommended significance threshold is 82 pounds daily of ROG, NO_x, or PM, which is the threshold applied for both construction-related emissions and operational emissions. Only operational emissions apply here, because the amount of on-site construction is too minimal to result in substantial effects.

The discussions below focus on emissions of ROG, NO_x, or PM. Analyses are not included for sulfur dioxide, lead, and other constituents because there are no mass emission thresholds; these are concentration-based limits in the Federal and State Ambient Air Quality Standards which require substantial, point-source emissions (e.g. refineries, concrete plants, etc) before exceedance will occur, and the SVAB is in attainment for these constituents. Likewise, carbon monoxide is not analyzed because the SVAB is in attainment for this constituent, and it requires high localized concentrations (called carbon monoxide “hot spots”) before the ambient air quality standard would be exceeded. “Hot spots” are typically associated with heavy traffic congestion occurring at high-volume roadway intersections. The Sierra Vista EIR analysis of Citywide traffic indicated that the majority of signalized intersections in the City would operate at level of service C or better. Analyses of existing CO concentrations at the most congested intersections in Roseville indicate that CO levels are well below federal and state ambient air quality standards.

The air quality analysis included in the Initial Study for the Roseville Telephone Facility examined the construction and operational effects of developing the site. Mitigation was applied requiring control of construction emissions and the implementation of a Transportation Systems Management Plan, to reduce vehicle trips to and from the site. The mitigation was completed, as required; City standards will require that the Transportation Systems Management Plan be updated to reflect the new user. This older analysis is now outdated, but the Sierra Vista EIR included an updated City-wide air quality analysis, and concluded that the build-out of allocated land uses within the City would have significant adverse air quality impacts resulting from ROG and NO_x, and from inconsistency with the applicable goals and policies of the local air quality plans. The adverse cumulative impacts could not be mitigated to a less than significant level, even with the mitigation measures proposed in the EIR. Therefore, the City Council adopted Findings of Fact and a Statement of Overriding Considerations with respect to air quality impacts. At the time of the City-wide analysis, the site was operating as Surewest Communications (now Consolidated Communications), which generated substantial daily traffic during peak commute times. Given that the church will generate less overall traffic than Consolidated Communications, this project falls within the scope of the Sierra Vista EIR analysis. The Project will not contribute any additional air quality impacts which were not previously analyzed, nor is there substantial new information which would require altering or augmenting the prior analysis.

- c) According to the PCAPCD’s *CEQA Air Quality Handbook (Handbook)*, the PCAPCD recommends the use of a cumulative threshold of significance for land use projects of 10 pounds per day for ROG and NO_x. Although described as a significance threshold, the *Handbook* specifically states that the threshold should not be used to determine whether to prepare an EIR; in other words, that it is not intended to be used as a threshold for significance. The *Handbook* recommends that the “threshold” be used to determine when to apply mitigation for cumulative impacts. Given that it is not recommended for use as a threshold for determining the significance of a cumulative impact, the City (acting as CEQA lead agency), has chosen to rely on a two-tier cumulative analysis methodology similar to that adopted by the Sacramento Metropolitan Air Quality Management District (SMAQMD), as outlined in the *SMAQMD Guide to Air Quality Assessment in Sacramento County*. The City is located within the SVAB, which is the same air basin where the SMAQMD methodology is used by numerous CEQA lead agencies; on these grounds, the City finds use of this methodology to be appropriate.

The first analysis tier involves determining whether a project would result in significant project-level criteria air pollutant emissions for which the region is designated non-attainment (i.e., exceed the PCAPCD-recommended project threshold of 82 lbs/day for ROG or NO_x). If it does not, then project emissions would not be considered cumulatively considerable. Should a project exceed the thresholds, a Tier 2 evaluation is conducted to determine whether project emissions would jeopardize implementation of the SIP, which is a methodology consistent with CEQA Guidelines Section 15064 (h)(3). Under the Tier 2 analysis, projects found to be consistent with the SIP and which would not conflict with the SIP emissions budget are considered less than cumulatively considerable.

A City-wide analysis was already prepared as part of the Sierra Vista EIR, and found that development of

the Plan area would result in significant and unavoidable impacts related to the emission of ROG and NO_x). The project will not result in any new impacts beyond those already discussed and disclosed in the Sierra Vista EIR; project-specific impacts are less than significant, as discussed in section b, above.

- d) As described in section a–b, the project will not result in any new impacts related to criteria pollutants beyond those already discussed and disclosed in the Sierra Vista EIR; project-specific impacts are less than significant. Toxic Air Contaminants (TAC) are also of public health concern, but no thresholds or standards are provided. There are hundreds of constituents which are classified as TAC, and they are typically generated by stationary sources like gas stations, facilities using solvents, and heavy industrial operations. The Air Resources Board has published the *Air Quality and Land Use Handbook – A Community Health Perspective* (April 2005), which lists TAC sources and recommended buffers. The proposed project is not a TAC-generating use, nor is it within the specified buffer area of a TAC-generating use. Impacts are less than significant.
- e) Church operations will not involve the generation of any offensive odors.
- f–g) In September 2006, Assembly Bill (AB) 32 was signed by Governor Schwarzenegger of California. AB 32 requires that California GHG emissions be reduced to 1990 levels by the year 2020. The California Air Resources Board (CARB) was delegated the authority to implement AB 32, and CARB subsequently prepared the *Climate Change Scoping Plan* (Scoping Plan) for California, which was approved in 2008 and amended in May 2014. The Scoping Plan provides the outline for actions to reduce California's GHG emissions. The PCAPCD recommends that the threshold of significance for GHG emissions selected by lead agencies be related to compliance with AB 32.

The proposed project does not involve development of a new use on an undeveloped property. Consolidated Communications has only recently vacated the primary buildings in order to lease them to the church, and in fact the Consolidated Communications corporation yard crews will continue to use the site until such time as the Use Permit is approved and the church operations move in. Thus, use of the buildings by the church will not result in either new emissions related to building energy consumption or from new vehicle emissions. The church will be a less-intense user of building energy, given that an office user involves a fully-staffed facility five days a week, while the church user will involve only minimal use of the facilities most days of the week. As discussed in sections a–b, the traffic generated by the church will also be far less than the traffic generated by Consolidated Communications. Thus, the project will result in a net reduction in greenhouse gas emissions from the site when compared to existing site conditions.

IV. Biological Resources

The Findings of the Implementing Procedures indicate that compliance with the City of Roseville Tree Preservation ordinance (RMC Ch.19.66) will prevent significant impacts related to loss of native oak trees, referenced by item e, below. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
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 Wildlife or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
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, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

a–f) The project site is fully developed with buildings, parking lots, and other structures. The only biological resources remaining on the site are the landscape trees and the trees on the undeveloped property to the east which overhang the site. Only minor exterior construction is proposed, none of which will occur near any oak trees or landscape trees. There are no impacts with respect to these criteria.

V. Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X

- a–d) No cultural resources were identified on the site as part of the Initial Study for the Roseville Telephone Facilities. The project includes only minor exterior construction, all of which will take place within existing paved areas. The buildings on the site were constructed in the 1990s; they are not eligible historic resources. There are no impacts with respect to these criteria.

VI. Geology and Soils

The Findings of the Implementing Procedures indicate that compliance with the Flood Damage Prevention Ordinance (RMC Ch.9.80) and Design/Construction Standards (Resolution 07-107) will prevent significant impacts related to item b, below. The Ordinance and standards include permit requirements for construction and development in erosion-prone areas and to ensure that grading activities will not result in significant soil erosion or loss of topsoil. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
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.)			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

a) The project will not expose people or structures to potential substantial adverse effects involving seismic shaking, ground failure or landslides.

i–iii) According to United States Geological Service mapping and literature, active faults are largely considered those which have had movement within the last 10,000 years (within the Holocene or Historic time periods)² and there are no major active faults in Placer County. The California

² United States Geological Survey, <http://earthquake.usgs.gov/learn/glossary/?term=active%20fault>, Accessed June 2014

Geological Survey has prepared a map of the state which shows the earthquake shaking potential of areas throughout California based primarily on an area's distance from known active faults. The map shows that the City lies in a relatively low-intensity groundshaking zone. Commercial, institutional, and residential buildings as well as all related infrastructure are required, in conformance with Chapter 16, *Structural Design Requirements*, Division IV, *Earthquake Design* of the California Building Code, to lessen the exposure to potentially damaging vibrations through seismic resistant design. In compliance with the Code, all structures in the Project area would be well-built to withstand ground shaking from possible earthquakes in the region; impacts are less than significant.

- iv) Landslides typically occur where soils on steep slopes become saturated or where natural or manmade conditions have taken away supporting structures and vegetation. The existing and proposed slopes are not steep enough to present a hazard during development or upon completion of the project. In addition, during construction, measures would be incorporated to shore slopes and prevent potential earth movement. Therefore, impacts associated with landslides are less than significant.
- b) The project only involves minor exterior construction with areas which are already paved. There is no impact with respect to this criterion.
- c, d) There are no records of foundational or structural problems having been experienced by the existing buildings, which have been in place for nearly 20 years. There are no impacts with respect to these criteria.
- e) The proposed project would be connected to the City's sanitary sewer system and would not involve the installation of septic tanks or alternative wastewater disposal systems. There would be no impact with regard to this criterion.

VIII. Hazards and Hazardous Materials

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
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?				X

a, b) A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local regulatory agency, or if it has characteristics defined as hazardous by such an agency.

Standard construction activities would require the use of hazardous materials such as fuels, oils, lubricants, glues, paints and paint thinners, soaps, bleach, and solvents. These are common household and commercial materials routinely used by both businesses and average members of the public. The materials only pose a hazard if they are improperly used, stored, or transported either through upset conditions (e.g. a vehicle accident) or mishandling. In addition to construction use, the operational project would result in the use of common hazardous materials as well, including bleach, solvents, and herbicides. Regulations pertaining to the transport of materials are codified in 49 CFR 171–180, and transport regulations are enforced and monitored by the California Department of Transportation and by the California Highway Patrol. Specifications for storage on a construction site are contained in various regulations and codes, including the California Code of Regulations, the Uniform Fire Code, and the California Health and Safety Code. These same codes require that all hazardous materials be used and stored in the manner specified on the material packaging. Existing regulations and programs are sufficient to ensure that potential impacts as a result of the use or storage of hazardous materials are reduced to less than significant levels.

- c) See response to Items (a) and (b) above. While the minor exterior construction and the interior construction will result in the use, handling, and transport of materials deemed to be hazardous, the materials in question are commonly used in both residential and commercial applications, and include materials such as bleach and herbicides. The project will not result in the use of any acutely hazardous materials, substances, or waste.
- d) The project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; therefore, no impact will occur.
- e–f) The project is not located within an airport land use plan area, no airports are located within two miles of the project site, and the project site is not located within the vicinity of a private airstrip; therefore, no impact would occur.
- g) This project is located within an area currently receiving City emergency services and development of the site has been anticipated and incorporated into emergency response plans. As such, the project will cause a less than significant impact to the City's Emergency Response or Management Plans. Furthermore, the project will be required to comply with all local, state and federal requirements for the handling of hazardous materials. Conditions will also be applied to the project requiring compliance with all local, state and federal requirements for the handling and/or storage of hazardous materials.
- h) The California Department of Forestry and Fire Protection (CAL FIRE) is the state agency responsible for wildland fire protection and management. As part of that task, CAL FIRE maintains maps designating Wildland Fire Hazard Severity zones. The City is not located within a Very High Fire Hazard Severity Zone, and is not in a CAL FIRE responsibility area; fire suppression is entirely within local responsibility. The project site is in an urban area, and therefore would not expose people to any risk from wildland fire. There would be no impact with regard to this criterion.

IX. Hydrology and Water Quality

The Findings of the Implementing Procedures indicate that compliance with the Flood Damage Prevention Ordinance (RMC Ch. 9.80) will prevent significant impacts related to items g, h, and i, below. The Ordinance includes standard requirements for all new construction, including regulation of development with the potential to impede or redirect flood flows, and prohibits development within flood hazard areas. It is also indicated that compliance with the City of Roseville Design/Construction Standards (Resolution 07-107), Urban Stormwater Quality Management and Discharge Control Ordinance (RMC Ch. 14.20), and Stormwater Quality Design Manual for the Sacramento and South Placer Regions (Resolutions 07-432) will prevent significant impacts related to item a, below. The standards require preparation of an erosion and sediment control plan for construction activities and includes designs to control pollutants within post-construction urban water runoff. Finally, it is indicated that the Drainage Fees for the Dry Creek and Pleasant Grove Watersheds (RMC Ch.4.48) and City of Roseville Design/Construction Standards (Resolution 07-107) will prevent significant impacts related to item e, below. The ordinance and standards require the collection of drainage fees to fund improvements that mitigate potential

flooding impacts, and require the design of a water drainage system that will adequately convey anticipated stormwater flows. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
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)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
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 which would result in flooding on- or off-site?				X
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?			X	
f) Otherwise substantially degrade water quality?			X	
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?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

- a,c-f) The project will not create any new impervious surfaces on the site, or introduce a use that will generate more pollutants. On the contrary, the parking lot will be used less frequently compared to the office uses of Consolidated Communications, which will mean less lubricants, fuels, and other materials will be deposited by cars into the parking lot.
- b) No groundwater withdrawal is proposed, and due to the site's relatively small size, the proposed project will have no impact on groundwater supplies and will not significantly affect groundwater recharge.
- d) The project will not create any new impervious surface area, and thus will have no impacts on the existing drainage patterns.
- g,h) According to the City's 2025 General Plan Floodplain Map, the project is not located within a designated 100-year floodplain. Furthermore, the structures are existing. There would be no impact with regard to these criteria.
- i) Folsom Dam, which is located approximately 10 miles southeast of the project site, is the closet dam to the project site. While portions of the City could be subject to flooding in the event of failure or damage of Folsom Dam, the project site is not located in an area that would be subject to inundation due to dam failure. Therefore, there would be no impact.
- j) No bodies of water are located in the vicinity of the project site. As a result, the project is not at risk of seiche or tsunami inundation. Because the proposed project is located within an area of flat topography there is no risk of debris flow or mudflow. There would be no impact with regard to this criterion.

X. Land Use and Planning

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
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?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

- a) The site is already developed. The project has no impact with respect to this criterion.
- b) The project is consistent with the General Plan, Specific Plan, and Zoning Ordinance.
- c) There are no Habitat Conservation Plans or Natural Community Conservation Plans covering the project site; therefore, no impact would occur.

XI. Mineral Resources

The Surface Mining and Reclamation Act (SMARA) of 1975 requires the State Geologist to classify land into Mineral Resource Zones (MRZ's) based on the known or inferred mineral resource potential of that land. The California Divisions of Mines and Geology (CDMG) is responsible for the classification and designation of areas containing—or potentially containing—significant mineral resources. CDMG published Open File Report 95-10, which provides the mineral classification map for Placer County. A detailed evaluation of mineral resources has not been conducted within the City limits, but MRZ's have been identified. There are four broad MRZ categories (MRZ-1 through MRZ-4), and only MRZ-2 represents an area of known significant mineral resources. The City of Roseville General Plan EIR included Exhibit 4.1-3, depicting the location of MRZ's in the City limits. There is only one small MRZ-2 designation area, at the far eastern edge of the City. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

- a, b) The project site is not in an area of the City known to include any mineral resources that would be of local, regional, or statewide importance; therefore, the project is not considered to have any impacts on mineral resources.

XII. Noise

The Findings of the Implementing Procedures indicate that compliance with the City Noise Regulation (RMC Ch. 9.24) will prevent significant non-transportation noise as it relates to items a, b, and c, below. The Ordinance establishes noise exposure standards that protect noise-sensitive receptors from a variety of noise sources, including non-transportation/fixed noise, amplified sound, industrial noise, and events on public property. Standards for transportation noise affecting existing or proposed land uses are established within the City of Roseville 2025 General Plan. Would the project result in:

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

a, c) The City Noise Ordinance is sufficient to mitigate noise from non-transportation sources, but a noise analysis is typically required to address traffic-related noise, if the use is a sensitive receptor. There are two noise impacts to address: impacts of the project traffic on nearby sensitive receptors, and impacts of existing and project traffic on the proposed church. An analysis of traffic noise affecting existing and proposed sensitive receptors in the City was prepared as part of the Sierra Vista EIR. This analysis included traffic from the Consolidated Communications operations affecting residential properties and other sensitive receptors, but it did not include an analysis of traffic noise on Industrial Boulevard, because there were no noise-sensitive uses in that location. Given that the project will generate less traffic than Consolidated Communications, the off-site impacts of project traffic on other users falls within the scope of that analysis. The project traffic will not result in any new, undisclosed impacts to nearby sensitive receptors. A brief analysis of noise affecting the church is required, because the Sierra Vista EIR did not address this item.

For churches, the General Plan establishes noise criteria of 60 dB for exterior noise and 40 dB for interior noise. For non-residential uses, the General Plan applies the exterior noise standard to common areas

where people generally congregate. The common area on the existing site is located in between two of the large buildings, which is screened from view of both Washington Boulevard and Industrial Avenue. The existing buildings shield the area from noise. Furthermore, this activity area is located approximately 500 feet from Industrial Avenue and nearly 1,000 feet from Washington Boulevard. The exterior area is well-shielded from the only substantive noise source in the area, the adjacent roadways.

For indoor noise, standard construction provides a 25 dB noise reduction. Thus, exterior noise must exceed 65 dB at the building façade in order to result in an interior noise level that exceeds the 40 dB standard. The City maintains a traffic counts database (<http://maps.roseville.ca.us/webtct/>). This database indicates that cumulative traffic volumes (year 2020) are anticipated to be 22,154 average daily vehicles along this section of Washington Boulevard and 19,339 average daily vehicles along this section of Industrial Avenue. The Federal Highway Administration Traffic Noise Prediction Model (FHWA-RD-77-108) was used to model roadway noise. Industrial Avenue was the roadway analyzed, as the sanctuary building is only 300 feet from the centerline of this roadway. The building is over 1,000 feet from Washington Boulevard, and there are other intervening buildings to buffer noise. The analysis (see Attachment 1) shows that the noise volumes at the exterior of the primary building will be 60 dB under cumulative conditions. Interior noise volumes will be 40 dB or less, and impacts are less than significant.

- b) Given that construction is either very minor or is entirely interior, no substantial groundborne noise is expected as a result of project implementation.
- d) Surrounding uses will experience increases in noise as a result of construction activities. However, these increases would only occur until construction of the project was complete, which will be very rapid given the minor scale of the exterior improvements. While the noise generated may be a minor nuisance, the City Noise Regulation standards are designed to ensure that impacts are not unduly intrusive. The regulation includes limits on hours of operation, to avoid nighttime disturbance. Based on this, the impact is less than significant.
- e, f) The project is not located within an airport land use plan area, no airports are located within two miles of the project site, and the project site is not located within the vicinity of a private airstrip; therefore, no impact would occur.

XIII. Population and Housing

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

- a) The CEQA Guidelines identify several ways in which a project could have growth-inducing impacts (Public Resources Code Section 15126.2), either directly or indirectly. Growth-inducement may be the result of fostering economic growth, fostering population growth, providing new housing, or removing barriers to growth. Growth inducement may be detrimental, beneficial, or of no impact or significance under CEQA. An impact is only deemed to occur when it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be shown that the growth will significantly affect the environment in some other way. Allowing a church to occupy an existing building does not induce growth either directly or indirectly.
- b, c) No housing exists on the project site, and there would be no impact with respect to these criteria.

XIV. Public Services

Fire protection, police protection, and park services are provided by City agencies. The Sierra Vista EIR which analyzed the 2025 General Plan addressed the level of public services which would need to be provided in order to serve planned growth in the community. Development Agreements and other conditions have been adopted in all proposed growth areas of the City which identify the physical facilities needed to serve growth, and the funding needed to provide for the construction and operation of those facilities and services. Thus, because the project is consistent with the General Plan and Specific Plan designations, it will not result in any new impacts beyond those already discussed and disclosed in the Sierra Vista EIR. In addition, the project has been routed to the various public service agencies, both internal and external, to ensure that the project meets the agencies' design standards (where applicable) and to provide an opportunity to recommend appropriate conditions of approval.

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:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?				X
d) Parks?				X
e) Other public facilities?			X	

- a) Existing City codes and regulations require adequate water pressure in the water lines, and interior construction must comply with the Uniform Fire and Building Codes used by the City of Roseville. Additionally, the applicant is required to pay a fire service construction tax, which is used for purchasing capital facilities for the Fire Department. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.
- b) The developer will be required to pay fees into a Community Facilities District, which provides funding for police services. Sales taxes and property taxes resulting from the development will add revenue to the General Fund, which also serves to fund police services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.
- c) Allowing a church to occupy an existing building will have no impacts on school services.
- d) Allowing a church to occupy an existing building will have no impacts on park services.

- e) The City charges fees to end-users for other services, such as garbage and greenwaste collection, in order to fund those services. Existing codes, regulations, funding agreements, and facilities plans are sufficient to ensure less than significant impacts.

XV. Recreation

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

- a–b) Allowing a church to occupy an existing building has no impacts on park services, and the project does not include or otherwise involve recreational facilities.

XVI. Transportation/Traffic

The Findings of the Implementing Procedures indicate that compliance with the Traffic Mitigation Fee (RMC Ch. 4.44) will fund roadway projects and improvements necessary to maintain the City’s Level of Service standards for projects consistent with the General Plan and related Specific Plan. The Circulation Element of the General Plan (Policy LOS.1) establishes Level of Service C or better as an acceptable operating condition at all signalized intersections and roadway segments during p.m. peak hours. An existing plus project conditions (short-term) traffic impact study may be required for projects with unique trip generation or distribution characteristics, in areas of local traffic constraints, or to study the proposed project access. A cumulative plus project conditions (long-term) study is required if a project is inconsistent with the General Plan or Specific Plan and would generate more than 50 pm peak-hour trips. The guidelines for traffic study preparation are found in the City of Roseville Design and Construction Standards–Section 4. Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
c) 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?				X
d) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

a–b) A short-term traffic impact study was prepared by Fehr and Peers to assess the localized traffic and circulation impacts of the project (see Attachment 2). The study examined operations at the three project driveways and at the Washington Boulevard/Industrial Avenue intersection. The intersection is

unsignalized, and operates as free-flow conditions for traffic on Washington Boulevard and a stop-control for traffic entering Washington Boulevard from Industrial Avenue. Traffic counts were collected at this intersection on Sunday, September 21, 2014 to assess existing conditions during what will be the church's peak operating time. Counts at the driveways were not taken, given that Consolidated Communications had vacated the space by then, and their operations did not include Sunday in any case. Although Industrial Avenue is two lanes and Washington Boulevard is three lanes in the existing condition, a restriping project to add an additional southband lane to Washington Boulevard is currently underway. It will be complete by the time the project opens, so it was included in the existing conditions analysis.

For the purposes of the traffic study, it was assumed that the typical Sunday would see an 80% attendance rate, resulting in a total of 1,100 people. To determine the number of vehicles this attendance would require, a survey performed on Sunday, March 30, 2014 at the existing Bayside Church on Sierra College Boulevard was used. This survey indicated an average vehicle occupancy of 2.05 people per vehicle. The timing of these trips is also important. A comprehensive set of traffic counts aimed at understanding the timing of arrival and departure was conducted by KD Anderson Transportation Engineers during Sunday services at the Bayside Church on Sierra College Boulevard. This survey showed that about 72% of attendees departed within 30 minutes of the end of the service, and that 70% of attendees arrived within the 30-minute period prior to the start of the service. A trip generation table (Table 5 in Attachment 2) was prepared on the basis of the foregoing data, finding that the project would generate 1,240 total trips every Sunday. These trips were distributed onto the roadway network based on anonymous zip code data provided by Bridgeway Christian Church, which indicated the general locations where attendees live.

The analysis of existing conditions found that the Washington Boulevard/Industrial Avenue intersection was operating at Level of Service (LOS) A (≤ 10.0 seconds of delay). Adding the project trips to the roadway network would deteriorate operating conditions at this intersection. While the eastbound right turn would remain at LOS A, the northbound left turn movement would operate at LOS B (> 10.0 to 15.0 seconds of delay), and the eastbound left turn would operate at LOS F (> 50.0 seconds of delay). All of the project driveways will operate at LOS C (> 15.0 to 25.0 seconds of delay) or better. Although the project will create an LOS F condition, this condition will exist for a very brief period of time and will affect a small number of vehicles. The traffic impact study concludes that only 23 left-turning vehicles would experience this delay.

The City LOS standard requires LOS C conditions at signalized intersections, not unsignalized intersections. At unsignalized intersections, conditions are permitted to degrade until such time as signalization is warranted. A signalization analysis was prepared for this project, which concluded the conditions requiring signalization were not met. Ultimately, the City of Roseville Capital Improvement Program includes the installation of a signal at the Washington Boulevard/Industrial Avenue intersection, when cumulative traffic volumes increase sufficiently to warrant it. With a signal in place, the intersection is projected to operate at LOS B or better without the church, and at LOS C or better with the church. The creation of the LOS F condition for stop-controlled left-turn vehicles is not considered to be a significant impact, because the City's LOS standards do not apply and the impact is only briefly experienced by a small number of vehicles.

The traffic impact study also examined vehicle queuing space for people turning into and out of the site, to ensure that the exit driveways and turn lanes contain enough depth to hold waiting vehicles. This analysis found that all but two movements had sufficient storage length for queued vehicles. The exceptions were for the driveway exit onto Washington Boulevard and for the southwestern driveway exit onto Industrial Avenue. Both of these queues will be long enough to spill back past the first internal intersections on the site. This condition could cause problems with traffic flow into the site, which could then cause problems with queues on public streets. To prevent this scenario, Fehr and Peers recommends the use of traffic control personnel to manage the flow of traffic. Should this prove ineffective, an alternative strategy would be to extend the duration between the first and second services from 30 to 45 minutes (or greater). Additionally, Fehr and Peers recommends church staff coordinate with the City of Roseville Engineering Division in advance of any special events that will generate more than average attendance, to provide an opportunity for review of the traffic control plans for the event. Mitigation has been included to require these

measures. Mitigation will ensure that the project will comply with City standards and traffic management plans; impacts are less than significant.

Mitigation Measure TC-1

Bridgeway Church shall manage operations in a manner that prevents queuing on public streets, to the satisfaction of the Engineering Division. The following measures shall apply to achieve this requirement:

1. Prior to occupancy, a Traffic Management Plan (TMP) shall be submitted to and approved by the Engineering Division. The TMP shall clearly detail the types of traffic control measures being implemented prior to and after services. Per the Bridgeway Christian Church Traffic Impact Study, prepared by Fehr & Peers, traffic control personnel shall be placed at the first internal intersections at the East Driveway and Southwest Driveway to manage the flow of traffic and ensure that inbound traffic does not spill back onto Washington Boulevard or Industrial Avenue.
 2. Should on-site traffic management prove to be ineffective (i.e. inbound traffic has difficulty entering the site), then the City shall have sole discretion to require services to be moved from 30 minutes to 45 minutes apart.
 3. Coordinate with the Engineering Division prior to holding any special events with an expected attendance exceeding 1,100 people. If requested by City staff, submit a traffic management plan for the special event to the Engineering Division for review and approval prior to holding the special event.
- c) The project site is not located within an airport planning area, nor would it affect navigable airspace. Consequently, the proposed project would not necessitate any change in air traffic patterns, nor would it result in safety risks to air traffic. There would be no impact with respect to this criterion.
- d) All street improvements and appurtenant facilities (e.g. sidewalks) are required to be designed in conformance with the City's Design and Construction Standards, which provide design direction intended to ensure the safe and appropriate operation of the constructed facilities. The Design and Construction Standards specify that the City Engineer has the authority to require additional standards and regulations if deemed necessary to protect the health, safety, and welfare of the public. The project has been reviewed by City Engineering staff, and has been found to comply with the City's Design and Construction Standards; impacts are less than significant.
- e) The City's Design and Construction Standards, in combination with the Uniform Fire Code requirements, are designed to ensure that adequate emergency ingress and egress is provided. Although improvements are largely internal, Uniform Fire Code and Design and Construction Standards still apply. Both the City Engineer and the Fire Department have reviewed the project, and have found that the design is consistent with the applicable standards. Existing codes and regulations are sufficient to ensure that impacts are less than significant.
- f) Pedestrian and bicycle facilities adjacent to the project are already in place. The project is consistent with adopted policies, plans, and programs regarding non-automotive travel, and will not decrease the performance or safety of such facilities; impacts are less than significant.

XVII. Utilities and Service Systems

Infrastructure master plans were developed for wastewater, water, and stormwater services for all development in the Specific Plan. These master plans address the location and sizing of distribution/conveyance lines, wells, pump stations, detention basins, and other facilities within the Plan area. Infrastructure financing was defined based on these plans, and fee payments were included in the Development Agreements and Community Facilities Districts to fund the construction and operation of major infrastructure. The construction impacts related to building the major infrastructure were disclosed in the EIR for the Specific Plan, and appropriate mitigation was adopted. Projects which are consistent with the Specific Plan will not result in any new impacts associated with

major infrastructure beyond those already discussed and disclosed in the Specific Plan EIR. Minor infrastructure (e.g. an on-site sewage line connecting to the major line in the street) is not addressed in the master plans, as it is particular to each project that is ultimately proposed, and is examined in each of those projects.

Would the project:

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

a, e) The proposed project would be served by the Pleasant Grove Wastewater Treatment Plant (PGWWTP). The Central Valley Regional Water Quality Control Board (RWQCB) regulates water quality and quantity of effluent discharged from the Pleasant Grove WWTP. The Pleasant Grove WWTP has the capacity³ to treat 12 million gallons per day (mgd) and is currently treating 7.4⁴ mgd. As discussed in Item (b) below, the volume of wastewater generated by the proposed project could be accommodated by the facility. Furthermore, the site has already been in use for many years and has been generating wastewater; the site is only changing uses. Use by the church will result in less daily wastewater generation, as the facility will be minimally used during most of the week. The impact would be less than significant.

b, c) The sewer, water, and stormwater infrastructure needed to serve the site already exists.

d) Switching the use of the site from an office user to a church user will reduce overall water demand generated from use of the site.

³ Waste Discharge Requirements/Monitoring & Reporting Program/NPDES Permit No. CA0079502, Adopted on 28 March 2014

⁴ Dave Samuelson, City of Roseville Environmental Utilities, Personal communication, July 30, 2014.

f, g) Switching the use of the site from an office user to a church user will reduce overall waste production from use of the site. Environmental Utilities staff has reviewed the project for consistency with policies, codes, and regulations related to waste disposal services and has found that the project design is in compliance.

XVIII. Mandatory Findings of Significance

Environmental Issue	Potentially Significant	Potentially Significant Unless Mitigated	Less Than Significant	No Impact
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 wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?			X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

a–c) Long term environmental goals are not impacted by the proposed project. The cumulative impacts do not deviate beyond what was contemplated in the Sierra Vista EIR. The project does not have the potential to substantially degrade the quality of the environment, reduce the habitat of any wildlife species, or adversely affect human beings.

Attachments

1. Noise Modeling Results
2. Traffic Impact Study

ATTACHMENT 1

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) Noise Prediction Worksheet

Project Information:

Job Number: 14-0389
Project Name: FHWA Model
Roadway Name: Industrial Avenue

Traffic Data:

Year: 2020
Average Daily Traffic Volume: 19,339
Percent Daytime Traffic: 80
Percent Nighttime Traffic: 20
Percent Medium Trucks (2 axle): 2
Percent Heavy Trucks (3+ axle): 2
Assumed Vehicle Speed (mph): 45
Intervening Ground Type (hard/soft): **Soft**

Traffic Noise Levels:

Location:	Description	Distance	Offset (dB)	-----L _{dn} , dB-----			
				Autos	Medium Trucks	Heavy Trucks	Total
1	Building façade	300	0	58	49	54	60

Traffic Noise Contours (No Calibration Offset):

L _{dn} Contour, dB	Distance from Centerline, (ft)
75	29
70	62
65	134
60	289

Notes:

TECHNICAL MEMORANDUM

Date: November 14, 2014
To: Marc Stout, P.E. – City of Roseville
From: John Gard, P.E. and Ryan Sager – Fehr & Peers
Subject: ***Bridgeway Christian Church Traffic Impact Study***

RS14-3259

This technical memorandum presents the assumptions, methodologies, results, and conclusions of our traffic impact study of the proposed Bridgeway Christian Church to be located near the intersection of Washington Boulevard and Industrial Avenue in Roseville, CA. This memorandum consists of the following sections:

- I. Project Description and Proposed Facility Operations
- II. Existing Conditions
- III. Project Travel Characteristics
- IV. Existing Plus Project Conditions
- V. Impacts and Mitigation Measures
- VI. Summary

I. Project Description and Proposed Facility Operations

According to the *Bridgeway Church Operational Statement for a Conditional Use Permit*, the proposed project would convert a portion of a 23-acre, 207,782-square foot industrial and office-space building campus located at 8150 Industrial Avenue into administrative offices, meeting space and assembly space for church activities. The project would provide seating that accommodates between 1,350 and 1,375 persons for a service.

Vehicular access to the project would be provided by three existing, full-access driveways, two of which are located on Industrial Avenue and one of which is located on Washington Boulevard. Refer to **Figure 1** for the project site location.

Expected Attendance Levels and Service Times

Bridgeway Christian Church representatives indicated that they would typically operate two Saturday services, and two Sunday services. Based on their current operations at their facility along Placer Corporate Drive in unincorporated Placer County, Sunday services are typically busier. They anticipate that typical attendance levels at the new facility could range from 1,000 to 1,100 persons. An attendance of 1,100 persons is assumed for this study, which represents 80 percent capacity for a 1,375-seat assembly space.

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Bridgeway Christian Church representatives indicated that their Sunday services would operate with the following hours of operation:

- Sunday Morning Early Service: 9 AM – 10:30 AM
- Sunday Morning Late Service: 11 AM – 12:30 PM

The two Sunday services would be scheduled such that the early service ends 30 minutes before the later service begins.

The proposed project would also include periodic community programs on weekdays for small-group meetings. These programs would typically take place after 5 PM so as not to interfere with the typical work hours of those wishing to attend. The project also includes 35 employees who work on-site from 9 AM to 5 PM Tuesday through Thursday.

Proposed Parking Supply

According to the project description, a total of 779 spaces would be provided on-site. The proposed project would have a peak parking demand of 540 spaces. (95% of 1,100 members park and have an average occupancy of 2.05 persons per vehicle + 30 employees). Thus, there would be a surplus of approximately 240 spaces.

For analysis purposes, it is assumed that the early Sunday service runs from 9:00 to 10:30 AM (1,100 attendees expected), while the second Sunday service runs from 11:00 AM – 12:30 PM (1,100 attendees expected). The services are scheduled such that there is a 30 minute gap between services. Due to the overlapping period being considered for the 10:30 AM to 11:00 AM gap between services, traffic counts were ordered at Washington Boulevard and Industrial Avenue for the 10:15 to 11:15 AM period.

Proposed Analysis Scenario

Based on the project's scheduling of Sunday services, the following scenario was selected for analysis:

- *Sunday Morning Services (10:15 – 11:15 AM)* – This time period would include departure traffic from the early Sunday service (1,100 attendees), and arrival traffic to the later Sunday service (1,100 attendees). Since the two Sunday services would be the most heavily attended and contain a considerable amount of overlapping traffic, this analysis period would represent a 'worst-case' scenario from a traffic operations perspective.

II. Existing Conditions

The following four intersections and driveways were selected for analysis based on discussions with City staff. This study area was chosen based on the project's travel characteristics including the directionality of travel and peak hours of operation:

1. Washington Boulevard/Industrial Avenue
2. Washington Boulevard/Bridgeway Church East Driveway
3. Industrial Avenue/Bridgeway Church Southwest Driveway
4. Industrial Avenue/Bridgeway Church Northwest Driveway

Traffic Volumes

We collected traffic counts at the Washington Boulevard/Industrial Avenue intersection on Sunday, September 21, 2014. **Figure 2** shows the existing peak hour traffic volumes at this intersection. Because the project site is currently vacant, it was not necessary to conduct counts at its driveways.

Lane Configurations / Traffic Controls

Along the project's frontage, Washington Boulevard currently includes one southbound travel lane and two northbound travel lanes. The City has initiated a restriping project along this segment of Washington Boulevard to stripe a second southbound travel lane and rehabilitate the pavement. This restriping project will result in two continuous northbound and southbound travel lanes on Washington Boulevard between Pleasant Grove Boulevard and Roseville Parkway. Since it will be complete prior to the project being approved and operational, it was assumed in place for the 'existing plus project' analysis. It has a posted speed limit of 45 mph.

Along the project's frontage, Industrial Avenue consists of a two-lane arterial divided by a center turn lane. It has a posted speed limit of 50 mph.

All study intersections/driveways feature stop-control on the minor street approach.

Analysis Methodology

The study area (including intersections and roadways) was analyzed using the SimTraffic micro-simulation model. This model accounts for the effects of queue spillbacks to upstream intersections, lane utilization, and other factors that influence congestion and delay. The following describes some of the specifics of this model:

1. It extends southerly on Washington Boulevard to Pleasant Grove Boulevard to account for the effects of 'platooned arrivals of traffic' at Washington Boulevard and Industrial Avenue and potential queue spillbacks.

2. Based on the unique travel characteristics of Bridgeway Church (see Section III), each 15-minute increment of the Sunday peak hour was analyzed separately, with all four increments summarized to represent peak hour conditions. This approach explicitly considers the extent to which inbound and outbound traffic overlaps during the course of the peak hour. It is an equivalent (but more accurate) means of applying a peak hour factor (PHF) to the analysis.
3. Per standard practice, the reported results are based on the average of 10 SimTraffic runs.

The level of service (LOS) at signalized and all-way stop-controlled intersections is based on the average delay experienced by all motorists traveling through the intersection. At side-street stop-controlled intersections, the average delay and LOS is reported for the minor street movement with the greatest delay and for the overall intersection. **Table 1** displays the average delay range for each LOS category associated with signalized and unsignalized intersections.

TABLE 1: INTERSECTION LEVEL OF SERVICE THRESHOLDS			
LOS	Description (for signalized intersections)	Average Delay (seconds/vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	Operations with very low delay occurring with favorable traffic signal progression and/or short cycle lengths.	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, and long cycle lengths. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55.0 to 80.0	> 35.0 to 50.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0	> 50.0

Source: *Highway Capacity Manual*, Transportation Research Board, 2010.

Intersection Level of Service, Delay, and Queuing

Table 2 displays the average delay and level of service (LOS) at the Washington Boulevard/Industrial Avenue intersection. Since the project driveways have no entering/exiting volumes, there are no delays at those locations. Hence, they are not shown in the table below. Refer to Attachment A for technical calculations. As shown, all movements at this intersection currently operate at LOS A. This result is consistent with field observations, which indicate free-flow travel on all study roadways and little or no delay.

TABLE 2: INTERSECTION OPERATIONS – EXISTING CONDITIONS				
#	Intersection	Movement ¹	Sunday Morning Peak Hour ²	
			Average Delay	LOS
1	Washington Boulevard/Industrial Avenue	NB LT	7 sec/veh	A
		EB LT	9 sec/veh	A
		EB RT	3 sec/veh	A
		Overall	3 sec/veh	A

Notes:
 1 Only movements that are yield- or stop-controlled are shown.
 2 Results based on SimTraffic model results. Delay rounded to the nearest second.
 Source: Fehr & Peers, 2014.

III. Project Travel Characteristics

This section describes the project’s expected travel characteristics including assumed attendance levels, expected average vehicle occupancy, trip generation, and trip distribution. Refer to Attachment B for supporting technical data for the information below.

Trip Generation

The trip generation for each scenario was calculated using the following:

1. Service Attendance – The number of adults and children expected to attend each Sunday Morning service is 1,100 persons based on information provided by the applicant.
2. Average Vehicle Occupancy (AVO) – The expected number of service attendees per vehicle was estimated based on an AVO survey conducted on Sunday, March 30, 2014 at the existing Bayside Church on Sierra College Boulevard during Sunday morning services. **Table 3** summarizes the results and indicates that an AVO of 2.05 was recorded based on observations of more than 2,000 vehicles.

TABLE 3: AVERAGE VEHICLE OCCUPANCY (AVO) AT BAYSIDE COVENANT CHURCH ON SIERRA COLLEGE BOULEVARD						
Total Number of Surveyed Vehicles	Vehicle Occupancy					AVO
	1-person	2-person	3-person	4-person	5+person	
2,090	720	848	335	129	58	2.05

Notes:

- All vehicles entering/exiting the Olympus Drive and Miners Ravine Road accesses were observed from 9:30 to 11:30 am on Sunday, March 30, 2014.
- Since data was collected to survey vehicle occupancy versus count all vehicles, it was not necessary to count the lesser used driveway located on Cavitt Stallman Road.
- For analysis purposes, vehicles categorized as 5+ were assumed to have 6 individuals.

Source: Fehr & Peers, 2014.

- Trip Arrival and Departure Patterns in 15-Minute Increments – The project’s expected trip arrival and departure characteristics were derived from a comprehensive set of traffic counts conducted in March 2010 by KD Anderson Transportation Engineers during Sunday services at the Bayside Covenant Church on Sierra College Boulevard. **Table 4** summarizes the results. The data in Table 4 reveal two meaningful conclusions:

 - About 72 percent of church attendees *departed* in the 30-minute period after the service concluded.
 - About 70 percent of church attendees *arrived* in the 30-minute period prior to the service beginning.

For analysis purposes, five (5) percent of all service attendees (55 persons) were assumed to be dropped off, leaving 1,045 persons who arrive via vehicle. At an average occupancy of 2.05 persons per vehicle, this equates to a parking demand of 510 vehicles. Combined with an assumed 35 church staff members, this would equate to about 545 parking spaces being needed. Given that the site would provide 779 parking spaces, there would be a surplus of 234 spaces.

Arrival Patterns		Departure Patterns	
Time Period	Inbound Travel to Second Sunday Service	Time Period	Outbound Travel After First Sunday Service
Arrived between 30 and 45 minutes <i>before</i> service	9.1%	Departed within 15 minutes <i>before</i> the service ended	19.3%
Arrived between 15 and 30 minutes <i>before</i> service	26.2%	Departed within 15 minutes <i>after</i> the service ended	51.6%
Arrived within 15 minutes <i>before</i> service	44.0%	Departed between 15 to 30 minutes <i>after</i> the service ended	20.4%
Arrived within 15 minutes <i>after</i> service started	20.7%	Departed between 30 to 45 minutes <i>after</i> the service ended	8.7%
Total	100%	Total	100%
Notes: <ul style="list-style-type: none"> Based on traffic counts (collected by KD Anderson Transportation Engineers on Sunday, March 21, 2010) and service times at Bayside Covenant Church on Sierra College Boulevard during that day. 			

Table 5 displays the project’s inbound and outbound trip generation in 15-minute increments during the Sunday morning peak hour. This table is based on the aforementioned projected attendance levels, average vehicle occupancy, and trip arrival/departure patterns. This table indicates the project would generate 1,240 trips during the Sunday morning peak hour, with equal proportions of inbound and outbound traffic. The outbound flow peaks from 10:30 – 10:45 AM while the inbound flow peaks from 10:45 – 11:00 AM. The traffic volumes in Table 5 correspond to a peak hour factor (PHF) of 0.64.¹

From 10:30 to 10:45 AM, the departure rate would be equivalent to an hourly flow of 1,225 vehicles. From 10:45 to 11:00 AM, the arrival rate would be equivalent to an hourly flow of 1,040 vehicles.

¹ The peak hour factor (PHF) is a measure of the variation in traffic flow within the peak hour. A PHF near 1.0 represents nearly identical flows during all four 15-minute intervals. Lower PHFs represent more ‘peaked’ conditions. PHF calculated as follows: $1,240 / (482 \times 4) = 0.64$.

Time Period	First Sunday Service (9 AM – 10:30 AM)			Second Sunday Service (11 AM – 12:30 PM)			Total Trips		
	Out-bound Trip %	Out-bound Trips ¹	In-bound Trips ¹	In-bound Trip %	In-bound Trips ¹	Out-bound Trips ²	In-bound	Out-bound	Total
10:15 – 10:30 AM	19.3%	109	11	9.1%	51	5	62	114	176
10:30 – 10:45 AM	51.6%	292	28	26.2%	148	14	176	306	482
10:45 – 11:00 AM	20.4%	115	11	44.0%	249	24	260	139	399
11:00 – 11:15 AM	8.7%	49	5	20.7%	117	12	122	61	183
Total	100%	565	55	100%	565	55	620	620	1,240

Notes:

- 1 Calculated based on total attendance (1,100 persons) with an expected AVO of 2.05 multiplied by the 15-minute inbound trip percentage (e.g., (1,045 / 2.05) * 19.3% = 98 trips plus pick-up trips (1,100 * .05) * 19.3% = 11 trips, or 109 trips.)
- 2 Five percent of inbound trips assumed to be drop-off/pick-up.

Source: Fehr & Peers, 2014.

Trip Distribution/Assignment

The project’s expected trip distribution was based on member data provided by Bridgeway Christian Church from their current membership. Specifically, anonymous zip code data was collected from members who made a donation to the church last year. The data showed that 30 percent of attendees resided in the 95648 (Lincoln) and 95747 (Roseville) zip codes (15 percent for each zip code). Significant percentages also resided in Rocklin and other zip codes surrounding Roseville. This data was used to estimate the distribution of trips to the proposed facility on Industrial Avenue and Washington Boulevard.

The routes service attendees would choose to arrive to and depart from the proposed facility will vary depending on a number of factors including:

- o Relative ease of accessing regional roadways such as Blue Oaks Boulevard for inbound versus outbound travel.
- o Location/amount of parking within project site.
- o Ease/challenges of performing outbound left-turn versus right-turn movements.

For sites that accommodate repeat visitors (i.e., churches), attendees typically become accustomed to travel conditions and select travel modes, arrival/departure times, and routes that best fit their needs. Accordingly, we performed several interim SimTraffic micro-simulation runs to understand how various route assignment procedures would affect on-site queuing and delays. These iterative runs resulted in minor adjustments to the trip distribution/assignment percentages to better reflect likely traveler behavior.²

Figures 3a and 3b show the expected distribution/assignment of inbound and outbound trips, respectively, for members attending a Sunday Morning service. Key findings from these figures include:

- As shown on Figure 3a, inbound trips are expected to be nearly equally split between the Washington Boulevard driveway (51 percent) and the Industrial Avenue driveways (49 percent).
- As shown on Figure 3b, outbound trips are expected to be more heavily oriented toward the Industrial Avenue driveways (60 percent) than the Washington Boulevard driveway (40 percent) for three reasons:
 - (1) Industrial Avenue carries less through traffic than Washington Boulevard, meaning there are more available gaps for outbound movements.
 - (2) Northbound Industrial Avenue is a convenient route to access SR 65 via Blue Oaks Boulevard.
 - (3) The majority of church parking and entryways are located on the west side of the project site, closer to these driveways.

IV. Existing Plus Project Conditions

This section analyzes the effects of the project under existing conditions. Traffic forecasts are first presented, followed by the operational analysis results.

Traffic Forecasts

Project trips were assigned to the study intersections in accordance with the trip generation and distribution estimates in the previous section. **Figure 4** displays the resulting project-only trips added to each study intersection. It is worth noting that these forecasts are hourly traffic flows. As noted previously, the traffic characteristics at Bridgeway Church exhibit a certain level of 'peaking'

² For example, an inbound motorist from SR 65/Blue Oaks Boulevard is likely to travel southbound on Washington Boulevard and enter the site from the project driveway. Conversely, an outbound motorist may be more likely to exit from an Industrial Avenue driveway and then use Industrial Avenue to access SR 65/Blue Oaks Boulevard given that the outbound right-turn onto Industrial Avenue would have less delay than the outbound left-turn onto Washington Boulevard.

which is reflected in the analysis. Project trips were added to the existing volumes to yield the existing plus project forecasts, which are shown on **Figure 5**.

Traffic Operations

The SimTraffic screenshot shown below represents expected “existing plus project” conditions at approximately 10:45 AM. This time period represents the peak outbound departure flow from the early service combined with the beginning of the inbound flow to the late service. The SimTraffic model showed that outbound traffic would initially be able to exit the project driveways, but would begin to queue back into the project site. Eventually, the queue resides as traffic is able to exit the project site before inbound traffic to the late service begins to build.



SimTraffic Screenshot of conditions at about 10:45 AM

Table 6 displays the average delay and LOS for critical stop-controlled movements at the study intersections under existing plus project conditions. **Table 7** displays the available storage and 95th percentile vehicle queues for key movements in the project vicinity under both Existing and Existing Plus Project conditions (refer to Attachment B for technical calculations).

TABLE 6: INTERSECTION OPERATIONS – EXISTING PLUS PROJECT CONDITIONS						
#	Intersection	Movement ¹	Sunday Morning Peak Hour			
			Existing Conditions		Existing Plus Project Conditions	
			Avg. Delay	LOS	Avg. Delay	LOS
1	Washington Boulevard/Industrial Avenue	NB LT	7 sec/veh	A	15 sec/veh	B
		EB LT	9 sec/veh	A	75 sec/veh	F
		EB RT	3 sec/veh	A	7 sec/veh	A
		Overall	3 sec/veh	A	8 sec/veh	A
2	Washington Boulevard/Bridgeway Church East Driveway	EB LT	N / A		25 sec/veh	C
		EB RT			20 sec/veh	C
		NB LT			5 sec/veh	A
		Overall			9 sec/veh	A
3	Industrial Avenue/Bridgeway Church Southwest Driveway	WB LT	N / A		18 sec/veh	C
		WB RT			15 sec/veh	C
		SB LT			3 sec/veh	A
		Overall			8 sec/veh	A
4	Industrial Avenue/Bridgeway Church Northwest Driveway	WB LT	N / A		9 sec/veh	A
		WB RT			6 sec/veh	A
		SB LT			3 sec/veh	A
		Overall			4 sec/veh	A

Notes:
 1 Only movements that are yield- or stop-controlled are shown.
 2 Results based on SimTraffic model results. Delay rounded to the nearest second.
 N / A = Not applicable. Driveway exists, but does not currently have any in/out traffic using it. As such, there are currently no delays.
 Source: Fehr & Peers, 2014.

TABLE 7: 95TH PERCENTILE QUEUE LENGTHS –EXISTING PLUS PROJECT CONDITIONS						
#	Intersection	Movement	Sunday Morning Peak Hour			
			Existing Conditions		Existing Plus Project Conditions	
			Storage Length (ft)	95th Percentile Queue (ft)	Storage Length (ft)	95th Percentile Queue (ft)
1	Washington Boulevard/ Industrial Avenue	NB LT	275	50	275	125
		EB LT	250	25	250	50
		EB RT	250	50	250	100
2	Washington Boulevard/ Bridgeway Church East Driveway	EB LT/RT	125	N / A	125	275
		NB LT	200	N / A	200	100
3	Industrial Avenue/Bridgeway Church Southwest Driveway	WB LT/RT	175	N / A	175	200
		SB LT	250	N / A	250	25
4	Industrial Avenue/Bridgeway Church Northwest Driveway	WB LT/RT	200	N / A	200	75
		SB LT	150	N / A	150	25

Notes:
 1 Results based on SimTraffic model for specified peak hour. Vehicle queue rounded to the nearest 25 feet.
 2 Measured from stop line at public street to first internal drive aisle.
 N / A = Not applicable. Driveway exists, but does not currently have any in/out traffic using it. As such, there are currently no delays or queues
 Source: Fehr & Peers, 2014.

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The following describes the LOS, delay, and queuing that could be expected at each study location:

Washington Boulevard/Industrial Avenue (#1)

- The project would worsen the stop-controlled eastbound left-turn from LOS A to F due to the project adding 265 through vehicles on Washington Boulevard and 168 left-turning vehicles on northbound Washington Boulevard. The LOS F condition is experienced by 23 left-turning motorists.
- No queuing issues were identified at this intersection. All 95th percentile queues can be accommodated within the available turn lane storage.
- A peak-hour signal warrant analysis was conducted using the *California Manual of Uniform Traffic Control Devices* (CA MUTCD, 2012) rural warrant criteria (due to the speed limits on both streets exceeding 40 mph). Under existing plus project conditions, the intersection would not satisfy the peak hour warrant.³

Washington Boulevard/Bridgeway Church East Driveway (#2)

- All movements would operate at LOS C or better.
- The outbound shared left/right lane would have a 95th percentile queue of 275 feet, which exceeds the on-site storage of 125 feet. Queued vehicles would spill back into the first internal intersection.
- The 200-foot northbound left-turn ingress lane can accommodate the 95th percentile queue of 100 feet.

Industrial Avenue/Bridgeway Church Southwest Driveway (#3)

- All movements would operate at LOS C or better.
- The outbound shared left/right lane would have a 95th percentile queue of 200 feet, which exceeds the on-site storage of 175 feet. Queued vehicles would spill back into the first internal intersection.
- The 250-foot northbound left-turn ingress lane can accommodate the 95th percentile queue of 25 feet.

Industrial Avenue/Bridgeway Church Northwest Driveway (#4)

- All movements would operate at LOS C or better.
- No queuing issues were identified at this intersection. All 95th percentile queues can be accommodated within the available turn lane storage.

³ The 2012 California MUTCD offers guidance for what movements shall be considered in this calculation. Generally speaking, when the movement is able to turn onto the major street unimpeded the volume can be removed or reduced in magnitude. Due to east bound right turning traffic having minimal delay (i.e., operating at LOS A), this movement was removed from the warrant calculation.

V. Impacts and Mitigation Measures

City of Roseville LOS policies are not typically applied at unsignalized intersections. In instances in which a proposed land development's activities would cause traffic to queue back onto City streets, the City may consider this to be an unacceptable situation that must be addressed.

The previous section indicated that on-site queuing associated with the traffic exiting the early service would spill a considerable distance into the project site, which could block the first internal intersection at the East Driveway and Southwest Driveway. Should queued vehicles preclude inbound motorists who are arriving for the late service to proceed through these intersections, traffic could begin queuing back toward public streets. To address this potential, the following is recommended:

- The project applicant should situate traffic control personnel at the first internal intersections at the East Driveway and Southwest Driveway (see circles on map below) to manage the flow of traffic to ensure that inbound traffic does not begin to spill back onto Washington Boulevard or Industrial Avenue. If necessary based on these observations, members should be encouraged to use less congested driveways/routes.



Should on-site traffic management prove to be ineffective (i.e., inbound traffic has difficulty entering the site), then an alternative strategy would be to extend the duration between the end of the first and the start of the second services from 30 to 45 minutes.

The LOS F condition for the stop-controlled eastbound left-turn movement at the Washington Boulevard/Industrial Avenue intersection is not considered an adverse effect given the modest volume of traffic that experiences this condition. No queuing issues would occur and the peak hour signal warrant would not be met. This analysis has found that a traffic signal is not needed at this intersection to accommodate the proposed project.

The City of Roseville Capital Improvement Program (CIP) includes the installation of a traffic signal at the Washington Boulevard/Industrial Avenue intersection. With a signal in place, this intersection is projected to operate at LOS B during the weekday AM peak hour and LOS C during the weekday PM peak hour under 2035 Cumulative conditions. With a signal in place, operations would also be at LOS C or better during the Sunday morning services peak hour.

The potential for project impacts were also evaluated for other time periods, and for other Bridgeway events/activities. The following provides an overview of these evaluations:

- *Weekday Impacts at Other City of Roseville intersections* – Impacts are not expected during weekday peak hours at nearby intersections because project activities during these periods would typically be limited to office employees and occasional small group functions.
- *Impacts Associated with Special Events at Bridgeway Church* – According to the project description, Bridgeway Church would periodically hold larger attendance special events or programs (e.g., Christmas, Easter, Vacation Bible School, etc.). It is recommended that the applicant coordinate with the City of Roseville to determine whether these events may require special planning reviews or traffic management.

We hope this information is helpful. Please call or email us with any questions or comments.



❶ Study Intersection/Driveway

▭ Project Site



Figure 1
Study Area



1. Washington Blvd/Industrial Ave	2. Washington Blvd/Church East Dwy	3. Industrial Ave/Church SW Dwy	4. Industrial Ave/Church NW Dwy

- 1** Study Intersection/Driveway
- Turn Lane
- Stop Sign
- Signal
- xx** Sunday Morning Peak Hour (10:15 - 11:15 AM) Traffic Volume
- Project Site

Note:
Traffic counts collected on September 21, 2014.

Figure 2
Sunday Morning Peak Hour
Traffic Volumes and Lane Configurations -
Existing Conditions





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-  Project Trip Distribution
-  Project Site



Figure 3a
Inbound Project Trip Distribution

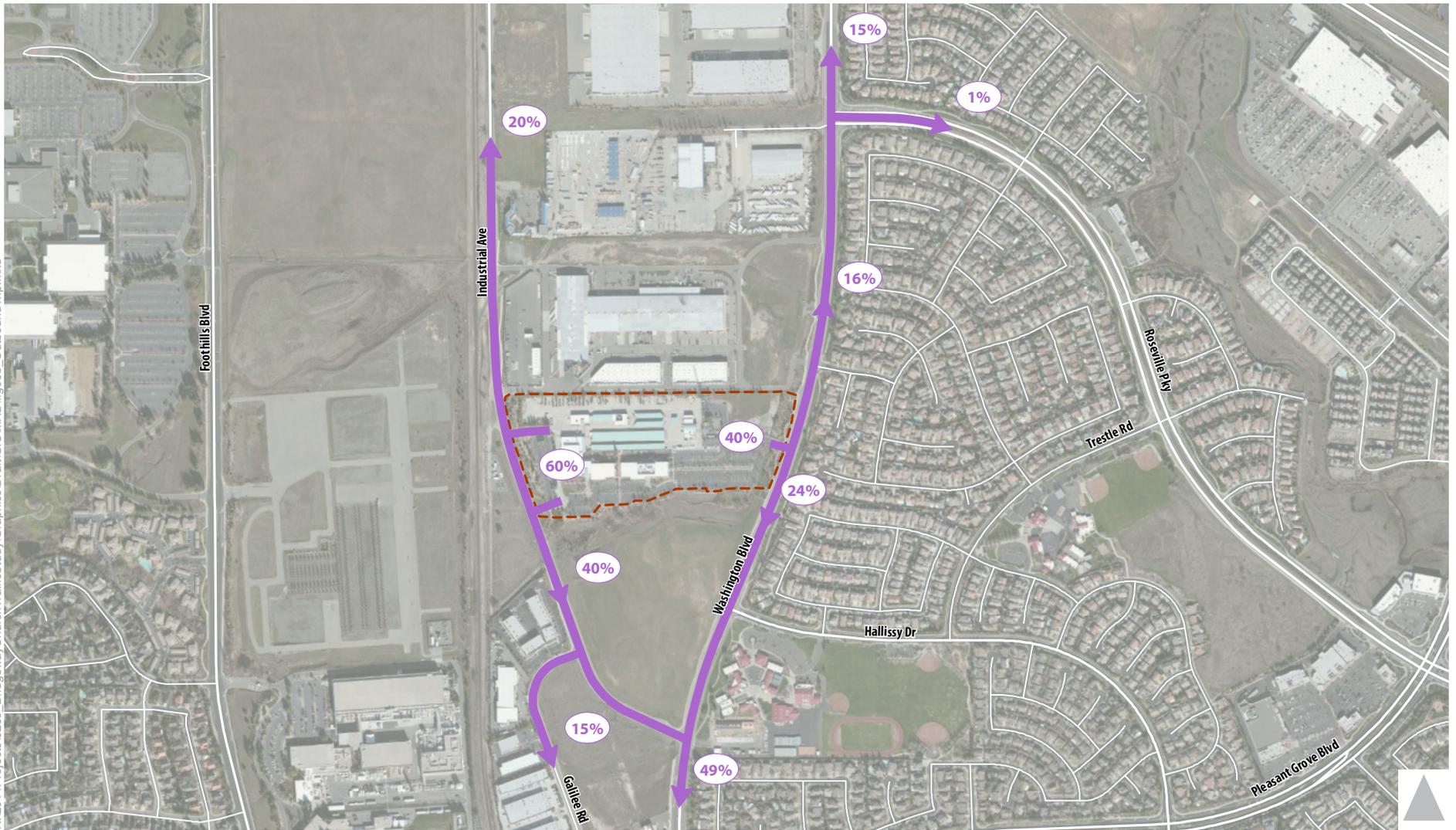


Figure 3b
Outbound Project Trip Distribution



1. Washington Blvd/Industrial Ave	2. Washington Blvd/Church East Dwy	3. Industrial Ave/Church SW Dwy	4. Industrial Ave/Church NW Dwy
<p>Industrial Ave</p> <p>0 148</p> <p>0 156</p> <p>168 117</p> <p>Washington Blvd</p>	<p>Church East Dwy</p> <p>198 0</p> <p>99 148</p> <p>118 0</p> <p>Washington Blvd</p>	<p>Industrial Ave</p> <p>62 12</p> <p>49 186</p> <p>43 218</p> <p>Church SW Dwy</p>	<p>Industrial Ave</p> <p>12 31</p> <p>75 63</p> <p>49 43</p> <p>Church NW Dwy</p>

- 1** Study Intersection/Driveway
- Turn Lane
- Stop Sign
- Signal
- xx** Sunday Morning Peak Hour (10:15 - 11:15 AM) Traffic Volume
- Project Site

Figure 4

Sunday Morning Peak Hour
Traffic Volumes and Lane Configurations -
Project Conditions Only





1. Washington Blvd/Industrial Ave	2. Washington Blvd/Church East Dwy	3. Industrial Ave/Church SW Dwy	4. Industrial Ave/Church NW Dwy
<p>Industrial Ave</p> <p>16 385</p> <p>23 282</p> <p>257 295</p> <p>Washington Blvd</p> <p>Signal</p>	<p>Church East Dwy</p> <p>198 253</p> <p>99 148</p> <p>118 201</p> <p>Washington Blvd</p> <p>Signal</p>	<p>Industrial Ave</p> <p>211 12</p> <p>49 186</p> <p>148 218</p> <p>Church SW Dwy</p> <p>Signal</p>	<p>Industrial Ave</p> <p>161 31</p> <p>75 63</p> <p>154 43</p> <p>Church NW Dwy</p> <p>Signal</p>

- 1** Study Intersection/Driveway
- Turn Lane
- Stop Sign
- Signal
- xx** Sunday Morning Peak Hour (10:15 - 11:15 AM) Traffic Volume
- Project Site

Figure 5

Sunday Morning Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Project Conditions



Attachment A – Existing Conditions Technical Calculations

SimTraffic LOS & Delay Analysis – Existing Conditions

**SimTraffic Post-Processor
Average Results from
10 Runs
Volume and Delay by Movement**

Bridgeway Christian Church

**Sunday AM
AM Peak Hour**

Intersection 1 Washington Blvd/Industrial Ave Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	89	88	98.7%	6.6	2.0	A
	Through	178	180	101.0%	2.9	0.5	A
	Right Turn						
	Subtotal	267	268	100.2%	4.4	0.9	A
SB	Left Turn						
	Through	237	225	94.9%	0.7	0.1	A
	Right Turn	16	15	95.6%	0.1	0.1	A
	Subtotal	253	240	95.0%	0.7	0.1	A
EB	Left Turn	23	21	90.9%	8.5	4.1	A
	Through						
	Right Turn	126	122	96.4%	2.7	0.9	A
	Subtotal	149	142	95.6%	3.4	0.9	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		669	650	97.2%	2.8	0.5	A

Queue Analysis – Existing Conditions

Intersection 1			Washington Blvd/Industrial Ave						Side-street Stop		
Direction	Lane Group	Lane	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time	
				Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	1	240	13	2	33	2	34	9	0%	0%
EB	Right Turn	1	776	25	2	46	6	67	21	0%	0%
NB	Left Turn	1	215	18	4	53	10	76	32	0%	0%

Attachment B – Existing Plus Project Conditions Technical Calculations

SimTraffic LOS & Delay Analysis – Existing Plus Project Conditions

**SimTraffic Post-Processor
Average Results from
10 Runs
Volume and Delay by Movement**

**Bridgeway Christian
Church**

**Sunday AM
AM Peak Hour**

Intersection 1 Washington Blvd/Industrial Ave Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	243	253	104.1%	14.9	1.5	B
	Through	284	288	101.5%	6.1	0.6	A
	Right Turn						
	Subtotal	527	541	102.7%	10.7	0.9	B
SB	Left Turn						
	Through	372	391	105.1%	2.0	0.2	A
	Right Turn	16	15	93.1%	0.7	0.5	A
	Subtotal	388	406	104.6%	2.0	0.2	A
EB	Left Turn	23	19	83.5%	75.3	43.0	F
	Through						
	Right Turn	268	287	107.1%	6.9	1.8	A
	Subtotal	291	306	105.2%	10.2	3.9	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,206	1,253	103.9%	8.1	1.1	A

Intersection 2

Washington Blvd/Church East Dr

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn	106	108	101.9%	4.5	1.0	A
	Through	201	197	97.9%	1.1	0.2	A
	Right Turn						
	Subtotal	307	305	99.3%	2.5	0.7	A
SB	Left Turn						
	Through	253	258	101.8%	1.1	0.2	A
	Right Turn	181	202	111.4%	1.1	0.3	A
	Subtotal	434	459	105.8%	1.1	0.1	A
EB	Left Turn	90	96	107.1%	24.6	9.8	C
	Through						
	Right Turn	135	147	108.9%	20.0	9.8	C
	Subtotal	225	243	108.2%	21.9	9.7	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		966	1,007	104.3%	9.0	3.8	A

Intersection 3

Industrial Ave/Church SW Dr

**Side-
street
Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	145	144	99.1%	2.3	0.3	A
	Right Turn	198	219	110.4%	1.2	0.3	A
	Subtotal	343	362	105.6%	1.6	0.2	A
SB	Left Turn	11	12	111.8%	3.3	1.3	A
	Through	205	216	105.6%	1.7	0.2	A
	Right Turn						
	Subtotal	216	229	105.9%	1.8	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	169	186	109.9%	18.2	7.5	C
	Through						
	Right Turn	45	47	103.8%	15.3	7.0	C
	Subtotal	214	233	108.6%	17.7	7.4	C
Total		773	823	106.5%	8.0	3.2	A

Intersection 4

Industrial Ave/Church NW Dr

**Side-street
Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph)		Total Delay (sec/veh)		
			Average	Percent	Average	Std. Dev.	LOS
NB	Left Turn						
	Through	150	149	99.3%	2.0	0.3	A
	Right Turn	40	41	103.3%	0.3	0.1	A
	Subtotal	190	190	100.2%	1.6	0.2	A
SB	Left Turn	29	31	108.3%	3.3	1.1	A
	Through	160	166	103.4%	0.3	0.1	A
	Right Turn						
	Subtotal	189	197	104.2%	0.9	0.2	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	57	63	110.9%	9.4	1.2	A
	Through						
	Right Turn	68	75	110.3%	5.9	1.4	A
	Subtotal	125	138	110.6%	7.5	1.2	A
Total		504	525	104.2%	3.8	0.6	A

Queue Analysis – Existing Plus Project Conditions

Intersection 1			Washington Blvd/Industrial Ave						Side-street Stop		
Direction	Lane Group	Lane	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time	
				Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Left Turn	1	240	18	10	43	16	44	14	0%	0%
EB	Right Turn	1	775	54	13	97	27	108	39	0%	0%
NB	Left Turn	1	215	85	12	142	26	157	39	0%	0%

Intersection 2			Washington Blvd/Church East Dr						Side-street Stop		
Direction	Lane Group	Lane	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time	
				Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
EB	Shared	1	671	155	52	275	115	319	108	0%	0%
NB	Left Turn	1	175	49	9	84	19	83	19	0%	0%

Due to issues concerning the internal queuing of vehicles within the project, the SimTraffic model was visually compared to the resulting output for accuracy. From averaging 8 individual model runs, the east driveway EB movement was found to have an average queue of 10.5 cars, which was rounded to be 11 cars, or 275 feet of queuing.

Intersection 3 **Industrial Ave/Church SW Dr** **Side-street Stop**

Direction	Lane Group	Lane	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time	
				Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Left Turn	1	175	2	4	8	15	10	18	0%	0%
WB	Shared	1	225			200	13			0%	0%

Due to issues concerning the internal queuing of vehicles within the project, the SimTraffic model was visually compared to the resulting output for accuracy. From averaging 8 individual model runs, the southwest driveway WB movement was found to have an average queue of 7.3 cars, which was rounded to be 8 cars, or 200 feet of queuing.

Intersection 4 **Industrial Ave/Church NW Dr** **Side-street Stop**

Direction	Lane Group	Lane	Storage (ft)	Average Queue (ft)		95th Queue (ft)		Maximum Queue (ft)		Block Time	
				Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Pocket	Upstream
SB	Left Turn	1	115	14	9	38	18	38	19	0%	0%
WB	Shared	1	467	43	6	72	18	73	18	0%	0%

Signal Warrant Analysis – Existing Plus Project Conditions

Note: Calculation excludes the EB Right-turn volume (per the CA MUTCD) because it operates at LOS A.



Sheet No 1 of 1

Major Street Washington Boulevard
 Minor Street Industrial Avenue

Project Bridgeway Christian Church
 Scenario Existing Plus Project Conditions
 Peak Hour AM

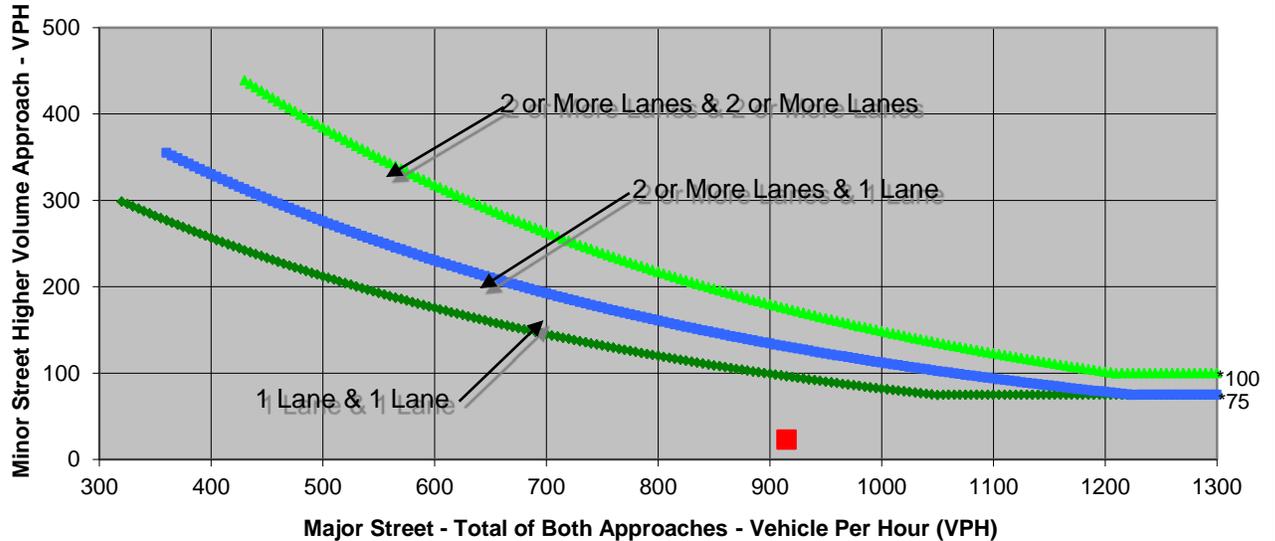
Turn Movement Volumes

	NB	SB	EB	WB
Left	243	0	23	0
Through	284	372	0	0
Right	0	16	0	0
Total	527	388	23	0

Major Street Direction

x North/South
 East/West

**Figure 4C-4
 Warrant 3, Peak Hour (70% Factor)
 (Rural Areas)**



* Note: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

	Major Street	Minor Street	<u>Warrant Met</u>
	Washington Boulevard	Industrial Avenue	
Number of Approach Lanes	2	1	<u>NO</u>
Traffic Volume (VPH) *	915	23	
<p>* Note: Traffic Volume for Major Street is Total Volume of Both Approches. Traffic Volume for Minor Street is the Volume of High Volume Approach.</p>			



❶ Study Intersection/Driveway

Project Site



Figure 1
Study Area



1. Washington Blvd/Industrial Ave	2. Washington Blvd/Church East Dwy	3. Industrial Ave/Church SW Dwy	4. Industrial Ave/Church NW Dwy

- 1** Study Intersection/Driveway
- Turn Lane
- Stop Sign
- Signal
- xx** Sunday Morning Peak Hour (10:15 - 11:15 AM) Traffic Volume
- Project Site

Note:
Traffic counts collected on September 21, 2014.

Figure 2
Sunday Morning Peak Hour
Traffic Volumes and Lane Configurations -
Existing Conditions





N:\2014\Projects\3259_BridgewayChurchTrafficStudy\Graphics\Draft\GIS\MXD\fig03a_inboundTrip.mxd

-  Project Trip Distribution
-  Project Site



Figure 3a
Inbound Project Trip Distribution

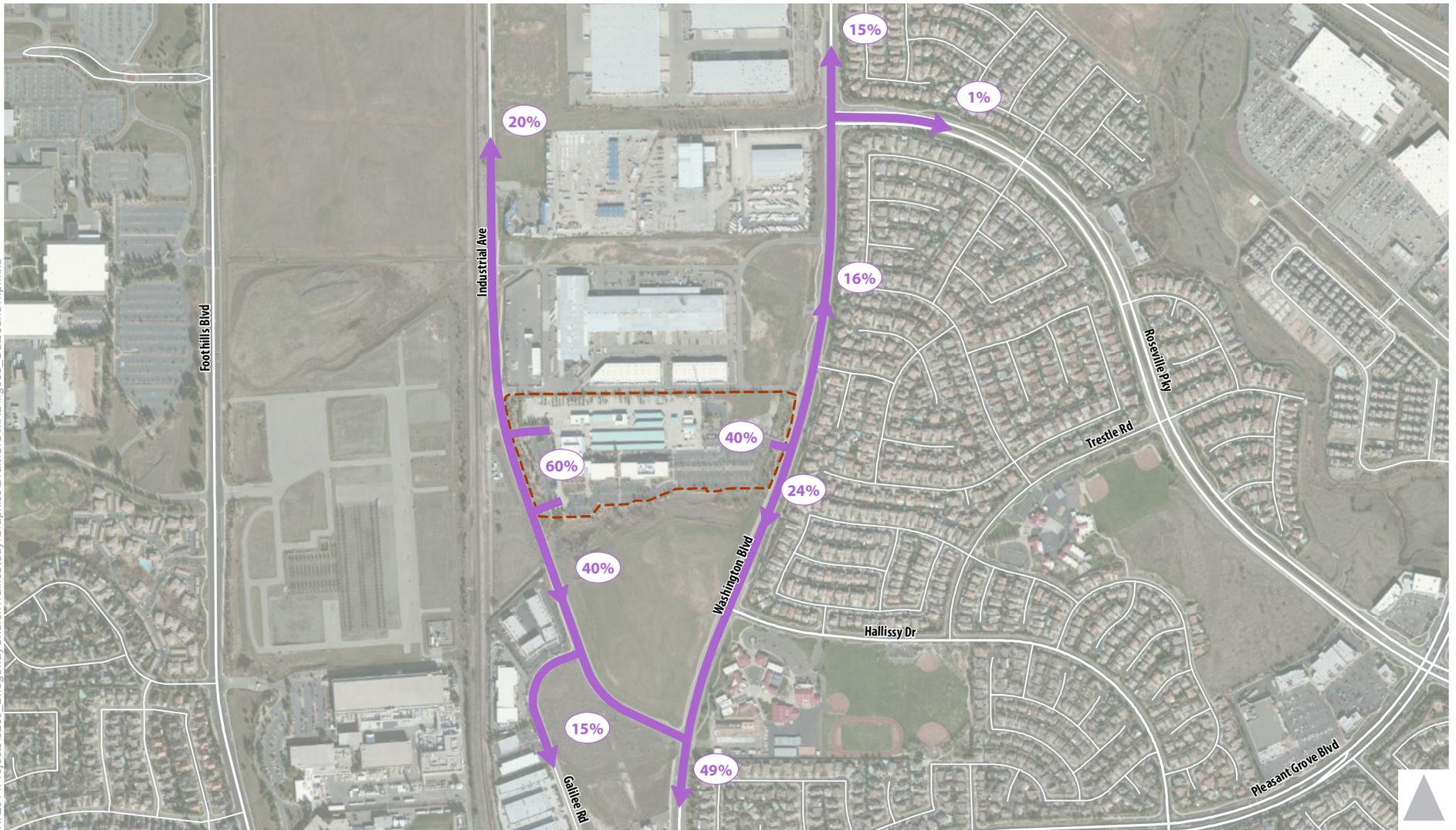


Figure 3b
Outbound Project Trip Distribution



1. Washington Blvd/Industrial Ave	2. Washington Blvd/Church East Dwy	3. Industrial Ave/Church SW Dwy	4. Industrial Ave/Church NW Dwy
<p>Industrial Ave</p> <p>0 148</p> <p>0 156</p> <p>168 117</p> <p>Washington Blvd</p>	<p>Church East Dwy</p> <p>198 0</p> <p>99 148</p> <p>118 0</p> <p>Washington Blvd</p>	<p>Industrial Ave</p> <p>62 12</p> <p>49 186</p> <p>43 218</p> <p>Church SW Dwy</p>	<p>Industrial Ave</p> <p>12 31</p> <p>75 63</p> <p>49 43</p> <p>Church NW Dwy</p>

- 1** Study Intersection/Driveway
- Turn Lane
- Stop Sign
- Signal
- xx** Sunday Morning Peak Hour (10:15 - 11:15 AM) Traffic Volume
- Project Site

Figure 4
**Sunday Morning Peak Hour
 Traffic Volumes and Lane Configurations -
 Project Conditions Only**





1. Washington Blvd/Industrial Ave	2. Washington Blvd/Church East Dwy	3. Industrial Ave/Church SW Dwy	4. Industrial Ave/Church NW Dwy
<p>Industrial Ave</p> <p>16 385</p> <p>23 282</p> <p>257 295</p> <p>Washington Blvd</p> <p>Signal</p>	<p>Church East Dwy</p> <p>198 253</p> <p>99 148</p> <p>118 201</p> <p>Washington Blvd</p> <p>Signal</p>	<p>Industrial Ave</p> <p>211 12</p> <p>49 186</p> <p>148 218</p> <p>Church SW Dwy</p> <p>Signal</p>	<p>Industrial Ave</p> <p>161 31</p> <p>75 63</p> <p>154 43</p> <p>Church NW Dwy</p> <p>Signal</p>

- 1** Study Intersection/Driveway
- Turn Lane
- Stop Sign
- Signal
- xx** Sunday Morning Peak Hour (10:15 - 11:15 AM) Traffic Volume
- Project Site

Figure 5

Sunday Morning Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Project Conditions

