

DRAFT ENVIRONMENTAL IMPACT REPORT

BELVEDERE-TIBURON LIBRARY EXPANSION PROJECT

SCH# 2009052003

Prepared for:

Town of Tiburon

Scott Anderson

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Tiburon, California 94920



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BELVEDERE-TIBURON LIBRARY EXPANSION PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT

PREPARED FOR:

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I. INTRODUCTION

A. INTRODUCTION

The subject of this Draft Environmental Impact Report (Draft EIR) is the Belvedere-Tiburon Library Expansion Project located within the Town of Tiburon. The lead agency for this project is the Town of Tiburon, California, located at 1505 Tiburon Boulevard, Tiburon, CA 94920. A detailed description of the proposed project is contained in Section III (Project Description) of this Draft EIR.

Because the proposed project will require approval of certain discretionary actions by the Town and other governmental agencies, the proposed project is subject to the California Environmental Quality Act (CEQA). The Town determined that the proposed project may have a significant effect on the environment and that an EIR should be prepared.

B. PURPOSE OF THE DRAFT EIR

The Town has prepared this Draft EIR for the following purposes:

- To satisfy the requirements of CEQA (Public Resources Code, Sections 21000–21178) and the CEQA Guidelines (California Code of Regulations, Title 4, Chapter 14, Sections 15000–15387).
- To inform the general public, the local community, and responsible and interested public agencies of the nature of the Belvedere-Tiburon Library Expansion Project, its possible environmental effects, possible measures to mitigate those effects, and alternatives to the proposed project.
- To enable the Town to consider environmental consequences when deciding whether to approve the Belvedere-Tiburon Library Expansion Project.
- To serve as a source document for information needed by several regulatory agencies to issue permits and approvals for the proposed Belvedere-Tiburon Library expansion.

The determination that the Town of Tiburon is the “lead agency” is made in accordance with Sections 15051 and 15367 of the CEQA Guidelines, which define the lead agency as the public agency that has the principal responsibility for carrying out or approving a project. This Draft EIR reflects the independent judgment of the Town regarding the potential environmental impacts, the level of significance of the impacts both before and after mitigation, and the mitigation measures proposed to reduce impacts.

As described in CEQA and the *CEQA Guidelines*, public agencies are charged with the duty to avoid or substantially lessen significant environmental impacts, where feasible. In discharging this duty, a public agency has an obligation to balance the project’s significant impacts on the environment with other conditions, including economic, social, technological, legal and other benefits. This Draft EIR is an informational document, the purpose of which is to identify the potentially significant impacts of the proposed project on the environment and to indicate the manner in which those significant impacts can be avoided or significantly lessened; to identify any significant and unavoidable adverse impacts that cannot be mitigated; and to identify reasonable and feasible alternatives to the proposed project that would

eliminate any significant adverse environmental impacts or reduce the impacts to a less-than-significant level.

The lead agency is required to consider the information in the EIR, along with any other relevant information, in making its decision on the Belvedere-Tiburon Library Expansion Project. Although the EIR does not determine the ultimate decision that will be made regarding implementation of the project, CEQA requires the Town to consider the information in the EIR and make findings regarding each significant effect in the EIR.

The Town will certify the EIR for the Belvedere-Tiburon Library Expansion Project. If certified, the EIR will serve as the base environmental document for the Belvedere-Tiburon Library Expansion and will be used as a basis for decisions on the project. Other agencies may also use this EIR in their review and approval process.

This Draft EIR was prepared in accordance with Section 15151 of the CEQA Guidelines, which defines the standards for EIR adequacy:

“An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection; but for adequacy, completeness, and a good faith effort at full disclosure.”

C. TYPE OF EIR

The Belvedere-Tiburon Library Expansion Project (proposed project) is intended to expand the existing Belvedere-Tiburon Public Library through the construction of a two-story addition, installation of pedestrian areas, and construction of parking on the project site. This Belvedere-Tiburon Library Expansion Project EIR is a Project EIR that evaluates the environmental effects of the proposed project. As required by CEQA and the *CEQA Guidelines*, a Project EIR examines all phases of the project including planning, construction, and operation.

D. DRAFT EIR REVIEW PROCESS

A Notice of Preparation (NOP) was prepared and distributed to the State Clearinghouse, trustee agencies, responsible agencies, and other interested parties on April 30, 2009. Distribution of the NOP established a 30-day review period for the public and agencies to identify environmental issues that should be addressed in the Draft EIR.

Pursuant to CEQA Guidelines Section 15205(b)(2), the Draft EIR will be submitted to the State Clearinghouse for distribution to state agencies. Submittal of the DEIR to the State Clearinghouse will also commence the 45-day review period. This Draft EIR is being circulated for review and comment to the public and other interested parties, agencies, and organizations for a 45-day review period. During the review period, copies of the Draft EIR will be available for review at the Town of Tiburon Planning Division and at the Belvedere-Tiburon Public Library during normal business hours. The following are the addresses for the Town of Tiburon Planning Division and the Belvedere-Tiburon Public Library:

Town of Tiburon
Planning Division
1505 Tiburon Boulevard
Tiburon, CA 94920

Belvedere-Tiburon Public Library
1501 Tiburon Boulevard
Tiburon, CA 94920

Written comments on the Draft EIR may be sent via U.S. mail and addressed to the following:

Scott Anderson, Director of Community Development
Town of Tiburon
1505 Tiburon Boulevard
Tiburon, CA 94920

Following a public hearing and after the close of the written public comment period on the Draft EIR, responses to written and recorded comments will be prepared and published. The Final EIR, which will consist of the Draft EIR, comments on the Draft EIR, written responses to those comments, and the Mitigation Monitoring Program (MMP), will then be forwarded to the Town for its consideration.

To consider approval of the proposed project, Section 15090 of the CEQA Guidelines requires the Town to certify that:

- The Final EIR has been completed in compliance with CEQA.
- The Final EIR was presented to the Town, and that the Town reviewed and considered the information contained in the Final EIR prior to approving the project.
- The Final EIR reflects the Town's independent judgment and analysis.

In conjunction with any certification of the Final EIR, the Town must also adopt written findings that address any significant environmental effect identified in the Final EIR, consistent with Section 15091 of the CEQA Guidelines. The Town must also adopt an MMP to ensure implementation of mitigation measures that have been incorporated into the project to reduce or avoid significant effects during project construction and/or implementation.

If feasible mitigations are not available to reduce significant environmental impacts to a less-than significant level, those impacts are considered significant and unavoidable. If the Town elects to approve the proposed project, and the proposed project would have significant unavoidable impacts, the Town would also be required to identify the specific overriding reasons for approving the project, based on the Final EIR and any other information in the public record. This “Statement of Overriding Considerations” would be incorporated into the Findings and would explain the specific reasons why the benefits of implementation of the proposed project override the unavoidable environmental effects that would result from project implementation.

E. INTENDED USES OF THE EIR

This document provides relevant information concerning the potential environmental effects associated with the construction and operation of the proposed project. As defined by CEQA, a Lead Agency is the public agency with the principal responsibility for carrying out or approving a project. The Town of Tiburon is the Lead Agency for approval of the project. Upon completion of the EIR process, the Town must certify the Final EIR before approving the project or a project alternative.

The project would ultimately require the following actions or approvals from the Town of Tiburon:

- General Plan Amendment (includes revisions to the Tiburon 2020 Land Use Diagram and Tiburon 2020 text)
- Master Plan Amendment to the Point Tiburon Master Plan (PD#42)
- Precise Plan Amendment to the Point Tiburon Precise Plan (PD#42)
- Rezoning
- Conditional Use Permit
- Site Plan and Architectural Review approval
- Grading permit
- Building permit
- Review of on-site flood control
- Approval of the Stormwater Control Plan (post-construction water quality BMPs, as outlined by MCSTOPPP)
- Encroachment permits (Caltrans and Town of Tiburon)

The Town of Tiburon would be responsible for granting the requested land use approvals. Other approvals from entities are expected to include the following:

- Permission from Sewerage Agency of Southern Marin (SASM) for development over the existing 15-foot easement that includes a pressure wastewater treatment line.
- Approval from Marin Municipal Water District (MMWD) for relocation of an on-site underground water line and easement and for compliance with water conservation regulations.
- Approval from Pacific Gas & Electric Company (PG&E) for relocation of an on-site underground electrical line and underground utility box and new easement.
- Approval from Tiburon Fire Protection District (TFPD) for adequate fire suppression access, in-building sprinkler system, and vegetation management.
- Approval from Sanitary District No.5 for connection of the new facilities to the public sewer system.

In addition to the Town and the above agencies, several federal, state, and regional responsible agencies may have discretionary authority over specific aspects of the proposed project. These include, but are not limited to, the following:

- Army Corps of Engineers (Corps) — Issuance of a 404 permit for the discharge of dredged or fill material into the waters of the United States, including wetlands.
- California Department of Transportation (Caltrans) — Issuance of an Encroachment Permit for changes to access and other improvements on Tiburon Boulevard (SR-131). Ensures compliance with all traffic related standards relative to state highways.
- Bay Area Regional Water Quality Control Board (RWQCB) — Issuance of a National Pollution Discharge Elimination System (NPDES) permit for construction activities disturbing more than 1 acre and permit for dewatering during construction, and approval of operational stormwater treatment.
- Bay Area Air Quality Management District (BAAQMD) — BAAQMD ensures that all applicable federal and state air quality standards are achieved and maintained.

In addition, the project may require Section 7 consultation with U.S. Fish and Wildlife Service (USFWS) for potential impacts to sensitive species, in coordination with CDFG.

F. ORGANIZATION OF THE DRAFT EIR

This Draft EIR is organized into eight sections as follows:

Section I (Introduction): This section provides an introduction and a description of the intended uses of the EIR and the review and certification process.

Section II (Executive Summary): This section includes a summary of the project description, environmental impacts that would result from implementation of the proposed project, proposed mitigation measures, and the level of significance of the impact before and after mitigation.

Section III (Project Description): This section presents a complete description of the proposed project including project location, project characteristics, and project objectives. This section also provides an overview of the study area's environmental setting including a description of existing and surrounding land uses, history and background of the project and project site, and a discussion of related projects to be analyzed in the EIR.

Section IV (Environmental Impact Analysis): This section is the primary focus of this Draft EIR. Each environmental issue contains a discussion of existing conditions for the project area including the regulatory setting, analysis methodology, thresholds of significance, and an assessment and discussion of the significance of impacts associated with the proposed project.

The impact analysis is further broken down to describe project impacts, cumulative impacts, mitigation measures, and level of significance of all impacts after mitigation. For significant impacts, mitigation measures to reduce or eliminate impacts are referenced by number in the impact discussion.

Section V (General Impact Categories): This section provides a discussion of the potential growth inducement of the proposed project as well as a summary of any significant unavoidable impacts associated with the proposed project.

Section VI (Alternatives to the Proposed Project): This section includes an analysis of a range of reasonable alternatives to the proposed project to provide informed decision making in accordance with Section 15126(f) of the CEQA Guidelines. The range of alternatives selected is based on their ability to feasibly attain most of the basic objectives of the project and avoid or substantially lessen any of the significant effects of the project.

Section VII (Preparers of the EIR and Persons Consulted): This section presents a list of lead agency, other agencies and consultant team members that contributed to the preparation of the Draft EIR. This section also identifies persons consulted during preparation of the Draft EIR.

Section VIII (References): This section provides full references of sources cited in the Draft EIR.

G. LEVELS OF SIGNIFICANCE

This EIR uses a variety of terms to describe the levels of significance of adverse impacts identified during the course of the environmental analysis. The following are definitions of terms used in this EIR:

- **No Impact:** There is no impact that would apply based on the project as described or based on project-specific standards or general standards.
- **Less Than Significant Impact:** Impacts that are adverse, but that do not exceed the specified standards of significance.
- **Potentially Significant Impact:** Significant impacts that may ultimately be determined to be less than significant; the level of significance may be reduced in the future through further definition of the project detail. Potentially significant impacts may also be impacts about which there is not enough information to draw a final conclusion; however, for the purpose of this EIR, they are considered significant. Such impacts are equivalent to significant impacts and require the identification of feasible mitigation measures.
- **Significant Impact:** Impacts that exceed the defined standards of significance and that can be eliminated or reduced to a less than significant level through the implementation of feasible mitigation measures.
- **Significant and Unavoidable Impact:** Impacts that exceed the defined standards of significance and that cannot be eliminated or reduced to a less than significant level through the implementation of feasible mitigation measures.

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II. EXECUTIVE SUMMARY

A. INTRODUCTION

This summary is intended to highlight the major areas of importance in the environmental analysis for the proposed project as required by Section 15123 of the CEQA Guidelines. The summary includes a brief description of the project, the project objectives, areas of controversy/issues to be resolved, and a summary of alternatives to the proposed project. In addition, this section provides a table summarizing: (1) potential environmental impacts that would occur as a result of the proposed project; (2) the level of significance of the environmental impacts prior to implementation of any applicable mitigation measures; (3) the recommended mitigation measures and/or project requirements that avoid or reduce significant environmental impacts; and (4) the level of significance after mitigation measures are implemented (refer to Table II-1, Summary of Impacts/Mitigation Measures at the end of this section).

B. PROPOSED PROJECT

The proposed project would expand the existing Belvedere-Tiburon Public Library through the construction of a two-story addition. The existing 10,500 square foot (sf) Library (11,990 sf including a mechanical mezzanine area) would be expanded to 28,500 sf (29,990 sf including the mechanical mezzanine area) in floor area. The project would also result in changes to vehicular access points; changes to site parking, including the installation of a new fifty-two (52) car parking area; and relocation of the existing Zelinsky Park. Approximately fifty-one (51) existing parking spaces would be eliminated by the project.

The project would also include lighting and landscaping improvements, including the installation of a Town Plaza and Zelinsky Promenade/Garden Plaza extending from Tiburon Boulevard to Zelinsky Park, restoration of the existing Zelinsky Park area, landscaping, and installation of a Story Time Area and Staff Patio.

One bioretention treatment area is proposed to the south of the parking area. The parking lot would be surfaced with a combination of asphalt and pervious asphaltic concrete; and would be landscaped with trees and plants. Stormwater would flow through the pervious paving. Additionally, runoff from the roof of the proposed Library addition would flow to a ground flow-through planter located to the north of the addition.

The proposed project would increase the existing development intensity on the Library parcels from a Floor Area Ratio (FAR) of 0.46 to an FAR of approximately 0.69. This change in FAR translates to an increase in total square footage on those parcels from approximately 11,990 sf to approximately 29,990 sf, or a net change of 18,000 sf. Upon buildout of the proposed project, impervious area would be increased from approximately 38 percent to approximately 42 percent.

C. PROJECT OBJECTIVES

The objectives of the proposed project include the following:

- Create new spaces that will allow the Library to better fulfill its mission as a learning, technology, and cultural center for all age groups.
- Increase shelving and floor space for library collections in all formats.
- Expand the Children's Room to offer services to children up to age 12. The current space is adequate only for children up to toddler age.
- Add a new Teen Area that will feature relevant materials and collections, a teen gathering space, and group and quiet study areas.
- Provide increased seating capacity and work spaces in public areas.
- Create a dedicated technology center with 20 computer stations. The technology center will allow for hands-on daily training and supported patron computer access.
- Expand programming space to provide
 - A meeting room for 80+ adults
 - Storytelling space for 30 children and parents
 - A conference room for 10-14
 - Four small study rooms
- Enlarge work and office space for library staff and volunteers
- Create new space for a library bookstore and a small café to serve as revenue sources for the library.
- Expand storage space in all areas of the Library.

D. SIGNIFICANT EFFECTS

CEQA requires a discussion of potentially significant environmental changes that could result from the project. The project would result in significant impacts to air quality (consistency with an applicable air quality plan), aesthetics (changes to scenic vistas), noise (construction groundborne vibration or groundborne noise levels and substantial temporary increase in noise), and traffic (parking). See Table II-1 for a summary of project impacts and mitigation measures.

E. AREAS OF CONTROVERSY

This EIR addresses environmental issues that are known or were raised during the Notice of Preparation (NOP) public review period. Letters were received from Caltrans, the Federated Indians of the Graton Rancheria, Native American Heritage Commission, and members of the public. The Town anticipates that views, biological resources, hydrology, land use, and parking would be the areas of controversy for the project.

F. ALTERNATIVES

Three alternatives were analyzed that would avoid or substantially lessen some of the significant effects of the project. These alternatives include the following:

- Alternative A: No Project /No Build
- Alternative B: Revised Site Plan
- Alternative C: Reduced Library

G. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table II-1 summarizes the various environmental impacts associated with the project; includes the mitigation measures recommended to reduce or avoid the environmental impacts; and identifies the level of impact significance after mitigation.

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**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
AESTHETICS			
<i>Impact AES-1: Would the project have a substantial adverse effect on a scenic vista?</i>	S	Other than not constructing the project, no mitigation measures are available to reduce this impact.	SU
<i>Impact AES-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</i>	NI	None Required.	NI
<i>Impact AES-3: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?</i>	LTS	None Required.	LTS
<i>Impact AES-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</i>	LTS	None Required.	LTS
AIR QUALITY			
<i>Impact AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?</i>	S	Other than not preparing a General Plan Amendment, no mitigation measures are available to reduce this impact.	SU
<i>Impact AQ-2: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?</i>	S	Mitigation Measure AQ-2a Construction Emissions: Implementation of the following measures would reduce airborne dust by reducing and controlling loose soils in areas subject to dust creating activity. As a condition of the construction contracts, the project sponsors shall require that construction contractors follow these construction practices: a. Water all active construction areas at least twice daily.	LTS

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ul style="list-style-type: none"> b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard. c. Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the construction sites. d. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction sites. e. Sweep public streets adjacent to construction sites daily (with water sweepers) if visible soil material is carried onto the streets. f. Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more). g. Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.). h. Limit traffic speeds on unpaved roads to 15 miles per hour. i. Install sandbags or other erosion control measures to prevent silt runoff to public roadways. j. Replant vegetation in disturbed areas as soon as possible. k. Wash off the tires or tracks of all trucks and equipment leaving the construction site. l. Install wind breaks at the windward sides of the construction areas m. Suspend excavation and grading activities when 	

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
<i>Impact AQ-3: Would the project expose sensitive receptors to substantial pollutants?</i>	LTS	wind (as instantaneous gusts) exceeds 25 miles per hour. None Required.	LTS
<i>Impact AQ-4: Would the project create objectionable odors?</i>	NI	None Required.	NI
<i>Impact AQ-5: Green House Gas Emissions: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?</i>	LTS	None Required.	LTS
BIOLOGICAL RESOURCES			
<i>Impact BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S Fish and Wildlife Services?</i>	S	Mitigation Measure BIO-1a Special Status Species: California red-legged frog (CRLF) A qualified biologist (hereafter, biological monitor), capable of monitoring projects with potential habitat for California red-legged frogs (CRLF) shall be present at the site as follows: Prior to and within 3 days of installation of exclusion fencing (type to be determined through consultation with CDFG and USFWS), the monitor shall survey the location for the installation for the presence of CRLF. In addition, should any burrows be observed, the burrows shall be inspected by the biologist to determine if it is being used by the species. Should CRLF be observed, the area shall be vacated and re-inspected in one week. If no animal use is noted, the burrows shall be carefully excavated using a	LTS

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>small trowel or shovel. Careful prodding using a blunt object will aid in determining the course of the tunnel such that the tunnel is excavated from the sides rather than the top, reducing the potential for any injury should an animal be present. Excavated burrows with no CRLF shall be left open so they cannot be re-occupied. If any non-listed species are located, they shall be translocated outside of the construction zone. Should any individual CRLF be found during the field survey or excavation, the area where that individual has been found shall remain undisturbed. If any life stage of the CRLF is found during these surveys or excavations, the Department of Fish and Game and the US Fish and Wildlife Service shall be contacted immediately, and activities that could result in take shall be postponed until appropriate actions are taken to allow project activities to continue.</p> <p>2. During installation of construction zone exclusion fencing, the biological monitor shall be present and will oversee the installation of all construction fencing. The exclusionary fencing shall be installed along the Marsh boundary first, leaving the southeastern property boundary open so that if any animals are within the construction zone, they will have the opportunity to move out of the area freely. Once it is confirmed that no animals remain within the project boundary, the remaining exclusionary fencing shall be placed.</p> <p>Immediately following installation of exclusion fencing, the biological monitor shall survey the enclosed construction zone for the presence of CRLF. If any life stage of the CRLF is found during these surveys, the</p>	

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Department of Fish and Game and the U.S. Fish and Wildlife Service shall be contacted immediately, and activities that could result in take shall be postponed until appropriate actions are taken to allow project activities to continue.</p> <p>The biological monitor shall be present at all times during restoration area planting activities outside the construction zone and within the buffer area, to monitor for the presence of CRLF.</p> <p>The biological monitor shall prepare a training document in both English and Spanish about the animals of concern, their identification, and the methods of avoidance and reporting requirements and procedures, should the species be observed. The document shall provide photographs of the species and notification numbers for the monitor, the Department of Fish and Game, and the U.S. Fish and Wildlife Service. The training document and contact information for the monitor shall be posted at the construction zone and maintained in the monitoring log. Every contractor, sub-contractor and construction worker shall be provided a copy of the training document in advance of their respective construction activities and shall be required to adhere to its contents.</p> <p>A highly visible warning sign shall be installed along the project perimeter. The warning sign shall be in English and Spanish and shall state: "Stay Out - Habitat Area of Federally Protected Species." A document drop shall be attached to several warning signs and stocked with a supply of training documents.</p> <p>The biological monitor shall conduct weekly site visits</p>	

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>when construction is occurring to verify that all construction zone exclusionary fencing is in place and functioning as intended. Any repair or maintenance to the fencing deemed necessary by the biological monitor shall be completed under the monitor's supervision. Such maintenance activities include adequate removal of vegetation at the construction fence line to ensure that vegetation "ladders" for species access are not allowed to establish.</p> <p>Once construction activities are complete, the exclusion fencing shall be removed under the supervision of the biological monitor. Prior to the removal of the buffer area/restoration area fencing, permanent exclusionary measures shall be put in place to prevent special status species movement beyond the buffer areas. Wildlife movement through the site shall be facilitated via the buffer zone established between the exclusionary fencing and the Marsh.</p> <p>The general contractor shall assign a crew member that will be responsible for conducting site inspections, monitoring gate opening and closing, and assuring that other species protection measures are in place and being enforced when the Biological Monitor is not present. The crew member shall adhere to the procedures contained in the training document and shall be able to contact the biological monitor should any violations be noted or listed species observed on-site.</p> <p>The biological monitor has the authority to halt all or some construction activities and or modify all or some construction methods as necessary to protect habitat and</p>	

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>individual sensitive species. The monitor shall be responsible for contacting USFWS should any endangered or threatened species be observed within the construction zones.</p> <p>The biological monitor shall complete daily monitoring reports for each day present, to be maintained in a monitoring log-book kept on site. Reports must contain the date and time of work, weather conditions, biological monitor's name, construction or project activity and progress performed that day, any listed species observed, any measures taken to repair and or maintain fencing, and any construction modifications required to protect habitat. The monitoring log-book with compiled reports shall be submitted to the Town of Tiburon upon cessation of construction as part of a construction monitoring report.</p> <p>Birds (including the salt marsh common yellow throat)</p> <p>While no nests of raptors or other birds were observed on the site during the reconnaissance survey conducted by CAJA's biologist, there is a potential for new nests to be established prior to project implementation, or during later phases of construction. In addition, Railroad Marsh's dense willow riparian habitat exists along the northeastern property boundary and could provide nesting habitat for the salt marsh common yellow throat, a special status species, in addition to common bird species. Tree removal, vegetation clearing, or disturbance in the immediate vicinity of a nest if active use could result in abandonment of the nest or loss of eggs and young, which would be a violation of the Migratory Bird Treaty Act. Preconstruction</p>	

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>surveys would be necessary in advance of construction during the nesting season (March through August) to confirm presence or absence of any new nests. This includes removal of landscape shrubs and trees required for the relocation of Zelinsky Park. Potential impacts to nesting birds are considered to be a potentially significant impact.</p> <p>Mitigation Measure BIO- 1b: Any active raptor or other nests in the vicinity of proposed grading shall be avoided until young birds are able to leave the nest (i.e., fledged) and forage on their own. Avoidance may be accomplished either by scheduling grading and tree removal during the non-nesting period (September through February), or if this is not feasible, by conducting a pre-construction survey for raptor nests. Provisions of the pre-construction survey and nest avoidance, if necessary, shall include the following:</p> <p>If grading is scheduled during the active nesting period (March through August), a qualified wildlife biologist shall conduct a pre-construction nesting survey no more than 14 days prior to initiation of grading to provide confirmation on presence or absence of active nests in the vicinity.</p> <p>If active nests are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with CDFG and implemented to prevent nest abandonment. At a minimum, grading in the vicinity of the nest shall be deferred until the young birds have fledged. A nest-setback zone of at least 300 feet shall be established for raptors and 100 feet for other birds within which all construction-related disturbances shall be prohibited. The perimeter of the nest-setback zone shall be fenced or adequately</p>	

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p><i>Impact BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game, or the U.S Fish and Wildlife Service?</i></p>	<p>S</p>	<p>demarcated (e.g. high visibility fencing, staking or flagging), and construction personnel restricted from the area.</p> <p>If permanent avoidance of the nest is not feasible, impacts shall be minimized by prohibiting disturbance within the nest-setback zone until a qualified biologist verifies that the birds have either a) not begun egg-laying and incubation, or b) that the juveniles from the nest are foraging independently and capable of independent survival at an earlier date. A survey report by the qualified biologist verifying that the young have fledged shall be submitted to the Town of Tiburon and CDFG prior to initiation of grading in the nest-setback zone.</p>	<p>LTS</p>
		<p>Mitigation Measure BIO-2a: Proposed project construction activities will not result in impacts to project area wetlands and/or habitat for special status species known to occur in Railroad Marsh, immediately adjacent to the site. The applicant's shall obtain verification of the current wetland delineation and shall consult with the regulatory agencies regarding special status species. The applicant shall continue to coordinate all project activities potentially regulated by State, Federal, and local agencies and shall obtain all necessary permits from CDFG, Corps, USFWS, and the RWQCB as required by federal and State law to avoid, minimize or offset impacts to any species listed under either the State or federal Endangered Species Acts or protected under any other State or federal law.</p> <p>Evidence that the applicant has secured any required authorization from these agencies shall be submitted to the Town of Tiburon prior to issuance of any grading or</p>	

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>building permits for the project.</p> <p>Mitigation Measure BIO-2b: Sensitive and general habitat features outside the limits of approved grading and development shall be protected by identifying a construction and development boundary on all project plans and prohibiting construction equipment operation within this boundary. The boundary shall be staked and flagged in the field with a highly visible color coded system and all construction and equipment operators shall be instructed to remain outside this no-disturbance boundary for the duration of construction. This measure is in addition to the wildlife exclusion fencing described in Mitigation Measure Bio-1a and applies to the protection of all habitat features outside of the project limits.</p> <p>Mitigation Measure BIO-2c: The area between the proposed Library expansion and Railroad Marsh shall be enhanced to improve habitat value and to protect sensitive riparian, marshland and open water habitats:</p> <p>Invasive non-native plants occurring in the buffer and within the riparian woodland adjacent to the project site including acacia, eucalyptus, pampas grass, French broom, Himalaya berry, poison hemlock, curly dock, and fennel shall be removed in order to enhance the habitat value of the riparian woodland and to prevent further spread of non-natives into Railroad Marsh. The current lawn areas within the project boundary contain non-native invasive weeds such as wild oats, wild radish, bristly ox-tongue and others. This same mix of non-native annual grasses and weeds exists throughout upland areas adjacent to the south side of</p>	

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Railroad Marsh. The Library Agency and the Town of Tiburon shall coordinate the enhancement of these areas to incorporate native forbs and grasses and to eradicate non-native invasives in the ongoing maintenance of the area in accordance with goals set forth in the Invasive Species and Open Space Management Policies of the Tiburon 2020 Open Space & Conservation Element.</p> <p>Permanent signage shall be installed to inform and educate the public about Railroad Marsh and its sensitive habitats. Signage shall be placed at an adequate distance from the Marsh edge in order to discourage intrusion on sensitive habitats. Signage shall provide information on the history of the marsh, habitat and species composition as well as the sensitivity of these habitats and the need to restrict human and dog intrusion into the Marsh area.</p>	
<p><i>Impact BIO-3: Would the project 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?</i></p>	<p>S</p>	<p>Implementation of BIO-1a through Bio -2c as well as HYDRO -1a and HYDRO-1b.</p>	<p>LTS</p>
<p><i>Impact BIO-4: Would the project interfere substantially with the movement of any native resident of migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites?</i></p>	<p>S</p>	<p>Implementation of BIO-1a through Bio -2c as well as HYDRO -1a and HYDRO-1b.</p>	<p>LTS</p>
<p><i>Impact BIO-5: Would the project conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</i></p>	<p>LTS</p>	<p>None Required</p>	<p>LTS</p>

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
<p><i>Impact BIO-6: Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</i></p>	<p>NI</p>	<p>None Required.</p>	<p>NI</p>
<p>HYDROLOGY AND WATER QUALITY</p>			
<p><i>Impact HYDRO-1: Would the project violate water quality standards or waste discharge requirements?</i></p>	<p>S</p>	<p>Mitigation Measure HYDRO 1a. Prepare and implement an erosion control plan and SWPPP for the construction phase of the project, in accordance with NPDES permit requirements. The SWPPP will describe methods for preventing discharge of construction and post-construction related pollutants to the Town's municipal stormwater system and to Railroad Marsh. The plan should outline specific methods for minimizing exposure of graded areas adjacent to Railroad Marsh, and construction activities for portions of the project adjacent to the Marsh shall be limited to the dry season (May through September).</p> <p>Mitigation Measure HYDRO 1b. Prepare a Stormwater Control Plan (SCP), following the procedures outlined by MCSTOPPP. The SCP shall include the project SWPPP (see Mitigation Measure HYDRO-1a above) as well as a description of post-construction BMPs being implemented. Bioretention features will be designed following the guidance found in MCSTOPPP's stormwater quality manual and the California Storm Water BMP Handbook for New and Redevelopment. If it is determined that pervious pavement is not feasible for the parking area, additional bioretention features or area will be included to treat all impervious surfaces within the new parking area,</p>	<p>LTS</p>

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		and the library bioretention features shall be designed to treat all rooftop area of the new library expansion. Bioretention facilities and areas of pervious pavement shall include an underdrain system due to the clayey nature of the soil on-site as well as the presence of near-surface groundwater.	
<i>Impact HYDRO-2: Would the project 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)?</i>	LTS	None Required.	LTS
<i>Impact HYDRO-3: Would the project 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?</i>	LTS	None Required.	LTS
<i>Impact HYDRO-4: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?</i>	S	Mitigation Measure HYDRO-4a: Upon completion of the final project design and prior to Town approval, the applicant shall complete a site drainage study to quantify the effects of the increased impervious surfaces on the 100-year peak runoff from the project site. If the study identifies increases in 100-year peak flow, specific design measures shall be incorporated into the project to reduce peak flow rates for the 100-year event to at or below pre-project levels. Design measures to control runoff may include the expansion of areas underlain by permeable pavement, reduction in impervious surface area, and/or	LTS

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>enlarging/adding water quality or other stormwater control features to provide additional detention. The results of this study shall be submitted to the Town of Tiburon for approval.</p> <p>Mitigation Measure HYDRO-4b: The final drainage map for the Tiburon Library project shall be reviewed by the Town engineer to verify that where the project has increased the drainage area to any individual storm drain, that drain has sufficient capacity to receive the estimated increase in flows without flooding. If individual storm drain capacity is not sufficient, then potential flow to that storm drain shall be reduced to below capacity by increasing pervious surfaces, incorporating swales or other means of detention/retention, or rerouting flows to storm drains that have sufficient capacity.</p>	
<i>Impact HYDRO-5: Would the project 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?</i>	S	Implementation of Mitigation Measures HYDRO-1a and 1b and HYDRO-4a and 4b.	LTS
<i>Impact HYDRO-6: Would the project otherwise substantially degrade water quality?</i>	S	Implementation of Mitigation Measures HYDRO-1a and 1b.	LTS
<i>Impact HYDRO-7: Would the project 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?</i>	NI	None Required.	NI
<i>Impact HYDRO-8: Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?</i>	LTS	None Required.	LTS

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
<i>Impact HYDRO-9: Would the project 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?</i>	S	Mitigation Measure HYDRO-9: The project shall incorporate a continuous berm at no less than 10.5 feet NAVD88 in elevation to maintain the existing separation between the Railroad Marsh and the library building. The elevation of the landscaped area east of the proposed parking lot shall be raised so that the crest of the area is the same elevation as the existing pathway east of the project site (10.5 feet NAVD88).	LTS
<i>Impact HYDRO-10: Would the project expose people or structures to inundation by seiche, tsunami, or mudflow?</i>	LTS	None Required.	LTS
LAND USE AND PLANNING			
<i>Impact LU-1: Would the project physically divide an established community?</i>	NI	None Required.	NI
<i>Impact LU-2: Would the project 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 with the purpose of avoiding or mitigating an environmental effect?</i>	LTS	None Required.	LTS
<i>Impact LU-3: Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?</i>	NI	None Required.	NI
NOISE			
<i>Impact NOISE-1: Would the project result in exposure of persons to or generation of noise in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</i>	S	Mitigation Measure NOISE-1a. Construction of the proposed project shall be restricted to the hours of 7:00 A.M. to 5:00 P.M. Monday through Friday, and 9:30 A.M. to 4:00 P.M. on Saturdays. Only quiet work is allowed to be performed on Saturdays, such that noise from any	LTS

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>source associated with the permitted work, including but not limited to construction activity, amplified sound, and worker's voices shall not be plainly audible beyond the property line. Work covered by a permit shall not be performed on Sunday or on holidays observed by the Town of Tiburon.</p> <p>Mitigation Measure NOISE-1b. Noise and groundborne vibration construction activities whose specific location on the project site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be conducted as far as possible from the nearest noise- and vibration-sensitive land uses.</p> <p>Mitigation Measure NOISE-1c. Construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.</p> <p>Mitigation Measure NOISE-1d. The use of those pieces of construction equipment or construction methods with the greatest peak noise generation potential shall be minimized. Examples include the use of drills and tractors.</p> <p>Mitigation Measure NOISE-1e. The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices.</p>	

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Mitigation Measure NOISE-1f: Barriers such as plywood structures or flexible sound control curtains shall be erected between the proposed project and sensitive receptors to minimize the amount of noise to the maximum extent feasible during construction.</p> <p>Mitigation Measure NOISE-1g: All construction truck traffic shall be restricted to truck routes approved by the Town, which shall avoid residential areas and other sensitive receptors to the extent feasible.</p>	
<i>Impact NOISE-2: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</i>	S	Construction activities associated with the project would expose persons or existing structures to excessive groundborne vibration or groundborne noise levels that would result in human annoyance. Other than not constructing the project, no mitigation measures are available to reduce this impact.	SU
<i>Impact NOISE-3: Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</i>	LTS	None Required.	LTS
<i>Impact NOISE-4: Would the project result in substantial temporary or periodic increase in ambient noise levels in the project vicinity?</i>	S	Construction activities associated with the project would expose persons to excessive noise levels that would result in a substantial temporary increase in ambient noise levels. Other than not constructing the project, no mitigation measures are available to reduce this impact.	SU
<i>Impact NOISE-5: Would the project result in exposure of people residing or working at the project site to excessive noise levels from a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public or public use airport?</i>	NI	None Required.	NI

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
<i>Impact NOISE-6: Would the project result in exposure of people residing or working at the project site to excessive noise levels from a private airstrip?</i>	NI	None Required.	NI
TRANSPORTATION/TRAFFIC			
<i>Impact TRANS-1: Would the project conflict with the Town of Tiburon Level of Service standards for signalized intersections or unsignalized intersections?</i>	LTS	None Required.	LTS
<i>Impact TRANS-2: Would the project result in impacts to regional roadways (Tiburon Boulevard), by resulting in additional project traffic that would deteriorate the LOS from LOS D to E during the P.M. peak hour period?</i>	LTS	None Required.	LTS
<i>Impact TRANS-3: Would the project result in project traffic or roadway design results in a substantial increase in unsafe circulation conditions?</i>	LTS	None Required.	LTS
<i>Impact TRANS-4: Would the project result in conflicts with adopted policies and plans supporting alternative transportation?</i>	LTS	None Required.	LTS
<i>Impact TRANS-5: Result in inadequate emergency access?</i>	NI	None Required.	NI
<i>Impact TRANS-6: Result in inadequate parking capacity?</i>	S	Other than not constructing the project, no mitigation measures under the sole control of the Town or applicant are available to reduce this impact.	SU
<i>Impact TRANS-7: Would the project conflict with the Town of Tiburon Level of Service standards for signalized intersections or unsignalized intersections for cumulative traffic conditions?</i>	LTS	None Required.	LTS
<i>Impact TRANS-8: Signal Warrant Analysis</i>	S	Mitigation Measure TRANS-8. The intersection of Mar West Street and Tiburon Boulevard satisfies a peak hour traffic signal warrant and shall be included in the Town's	LTS

**Table II-1
Summary of Impacts/Mitigation Measures**

Environmental Impacts	Level of Significance Prior Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>list of intersections that are considered for traffic signal installation. The Town shall employ their own criteria, for ranking and prioritization, including other signal warrants and accident history, when considering the need and timing for traffic signal installation.</p> <p>The Town's Traffic Mitigation Fee Resolution (No. 02-2007) exempts "municipal and other governmental uses" from payment of traffic mitigation fees. Were the Library project not exempt, the total traffic mitigation fees based on the projected 131 new PM peak trips would be approximately \$690,000.</p>	
<p><i>NI = No Impact</i> <i>LTS = Less Than Significant</i> <i>S = Significant</i> <i>SU = Significant Unavoidable</i></p> <p><i>Source: Belvedere-Tiburon Library Expansion Project EIR, 2010.</i></p>			

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III. PROJECT DESCRIPTION

A. OVERVIEW OF THE ENVIRONMENTAL SETTING

This section of the Draft EIR provides a brief overview of the project site's existing regional and local setting. Additional descriptions of the environmental setting as it relates to each of the environmental issues analyzed in Section IV (Environmental Impact Analysis) of this Draft EIR are included in the environmental setting discussions contained within Sections IV.B through IV.H.

Regional and Local Setting

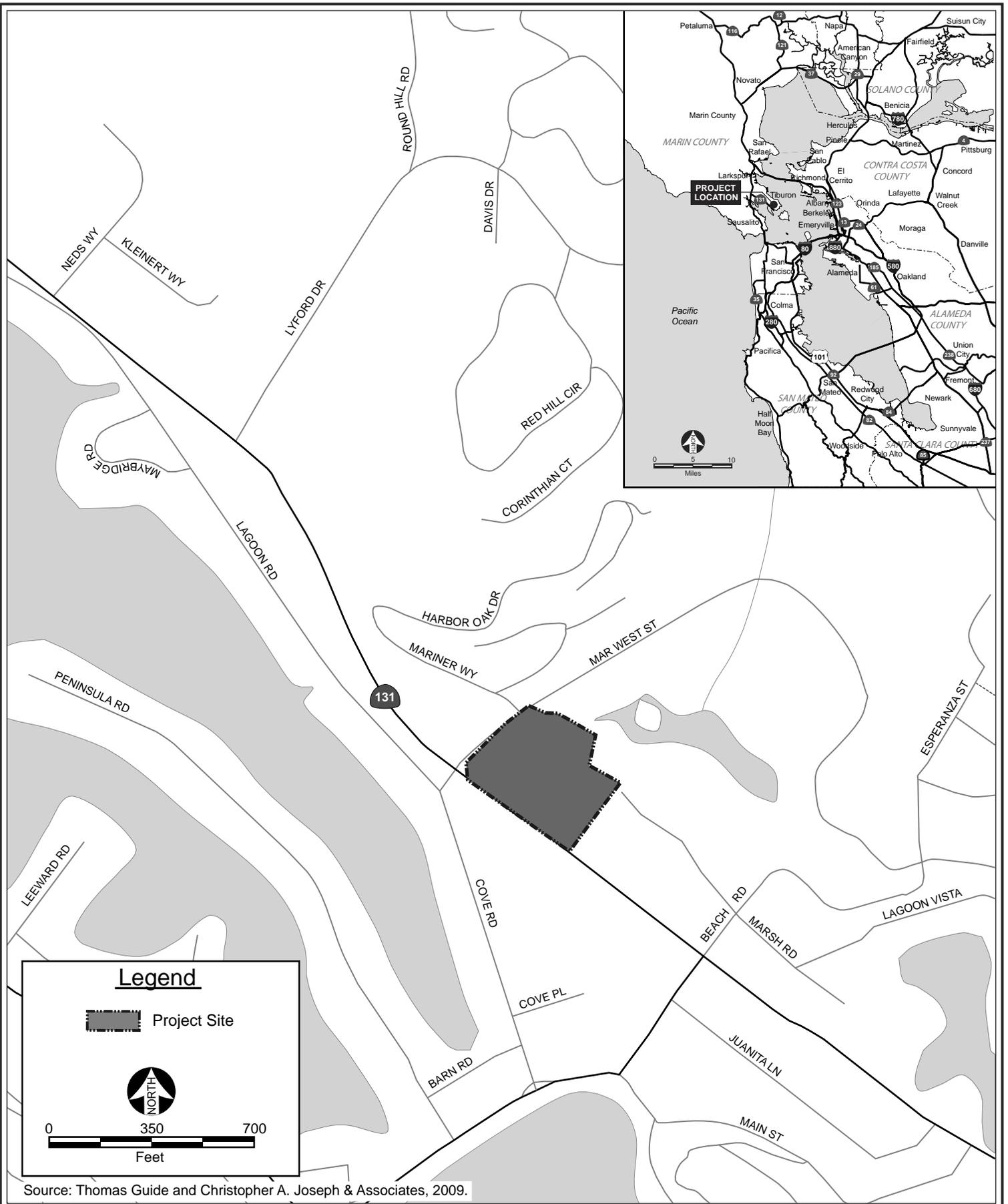
The project site is located in the San Francisco Bay Area within the southern portion of the County of Marin (County) in the Town of Tiburon (Town) (see Figures III-1 and III-2). The Town of Tiburon is located on a peninsula which extends from southeastern Marin County into San Francisco Bay, approximately seven miles north of the City of San Francisco. Regional access to Tiburon is by U.S. Highway 101, which is approximately 3.5 miles northwest of the project site. U.S. Highway 101 connects to San Francisco to the south and San Rafael and Sonoma County to the north.

The project site is located near the western shore of the San Francisco Bay in the southern part of the Town. The project site is bounded by the Railroad Marsh to the northeast, Mar West Street and commercial and residential uses to the northwest, Tiburon Boulevard to the southwest, and Tiburon Town Hall and associated parking to the southeast. The Point Tiburon Marsh Condominiums are located approximately 250 feet southeast of the project site.

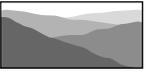
Project Site

The project site is located at 1501 and 1505 Tiburon Boulevard on portions of four assessor parcels near the intersection of Tiburon Boulevard with Mar West Street. The project site consists of the following: 1) the existing 0.95-acre Library parcels (APN 058-171-93 and -94); 2) the existing 0.5-acre Town Hall parcel (APN 058-171-92); and 3) an approximately 0.9-acre portion of the Town-owned Zelinsky Park parcel (APN 058-171-62). As shown in Figure III-2, the project site is currently developed with the Belvedere-Tiburon Library and Town Hall parking areas, Zelinsky Park, and the existing Belvedere-Tiburon Library building. Zelinsky Park, portions of which were installed and improved in 2001, includes an irrigated turf area, paved pathway, trees and groundcover, benches, and a commemorative photo display dedicated to the Zelinsky family. The existing Library building was completed in 1997 in the Craftsman style with cedar shingle siding, painted window frames, painted wood trim, and simulated slate roofing. The existing building is approximately 10,540 square feet (sf) on the first level with an approximately 1,450 square-foot mechanical mezzanine area. Views of the project site are shown in Figure III-3.

From approximately 1884 until 1984, the northern part of the project site was part of the Northwestern Pacific Railroad Yard. The railroad track crossed the property in the approximate vicinity of what is now the paved pathway. The track was removed in about 1968 and the land was dedicated to the Town of



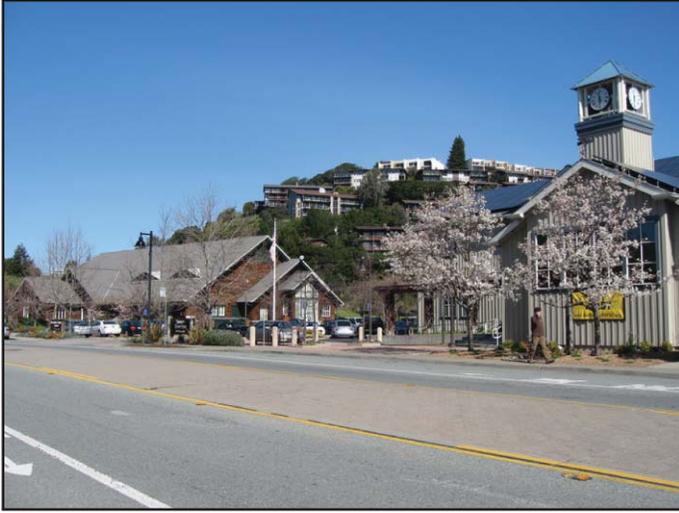
Source: Thomas Guide and Christopher A. Joseph & Associates, 2009.



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Figure III-1
Belvedere-Tiburon Library
Regional and Project Vicinity Map





View 1: View from Tiburon Boulevard looking northwest.



View 2: View from behind Town Hall looking northwest.



View 3: View from behind Town Hall looking northeast.



View 4: View from Mar West Street looking southeast.

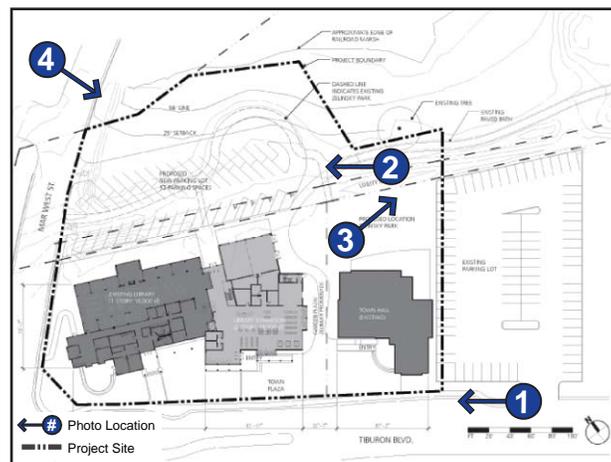


PHOTO LOCATION MAP

Source: Christopher A. Joseph & Associates, 2009.



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Figure III-3
Views of the Project Site

Tiburon in 1984. The southern portion of the project site was dedicated to the Town of Tiburon in a series of dedications made by the Zelinsky family in the 1980s and 1990s. The Town of Tiburon turned over a portion of the land donated by the Zelinsky family to the Library Agency in the 1990s.

The southwesterly half of the project site is located within a 100-year flood zone according to the most recent FEMA flood maps.

Existing Water and Wastewater Infrastructure

An underground pressurized wastewater line is located within the site and is aligned in an east-west direction just north of the existing Library. This line is located within a 15-foot easement held by the Sewerage Agency of Southern Marin (SASM), and no development is allowed over the easement without permission of SASM. A six-inch storm drain pipe is also located in this general area, within the 15-foot easement maintained by SASM.

The project site is also crossed by a water line easement (width unknown) and a 10-foot wide electrical line easement, located about 45 feet and 32 feet northeast, respectively, from the 15-foot wide wastewater line easement. These two lines also cross the project site in a roughly east-west direction.

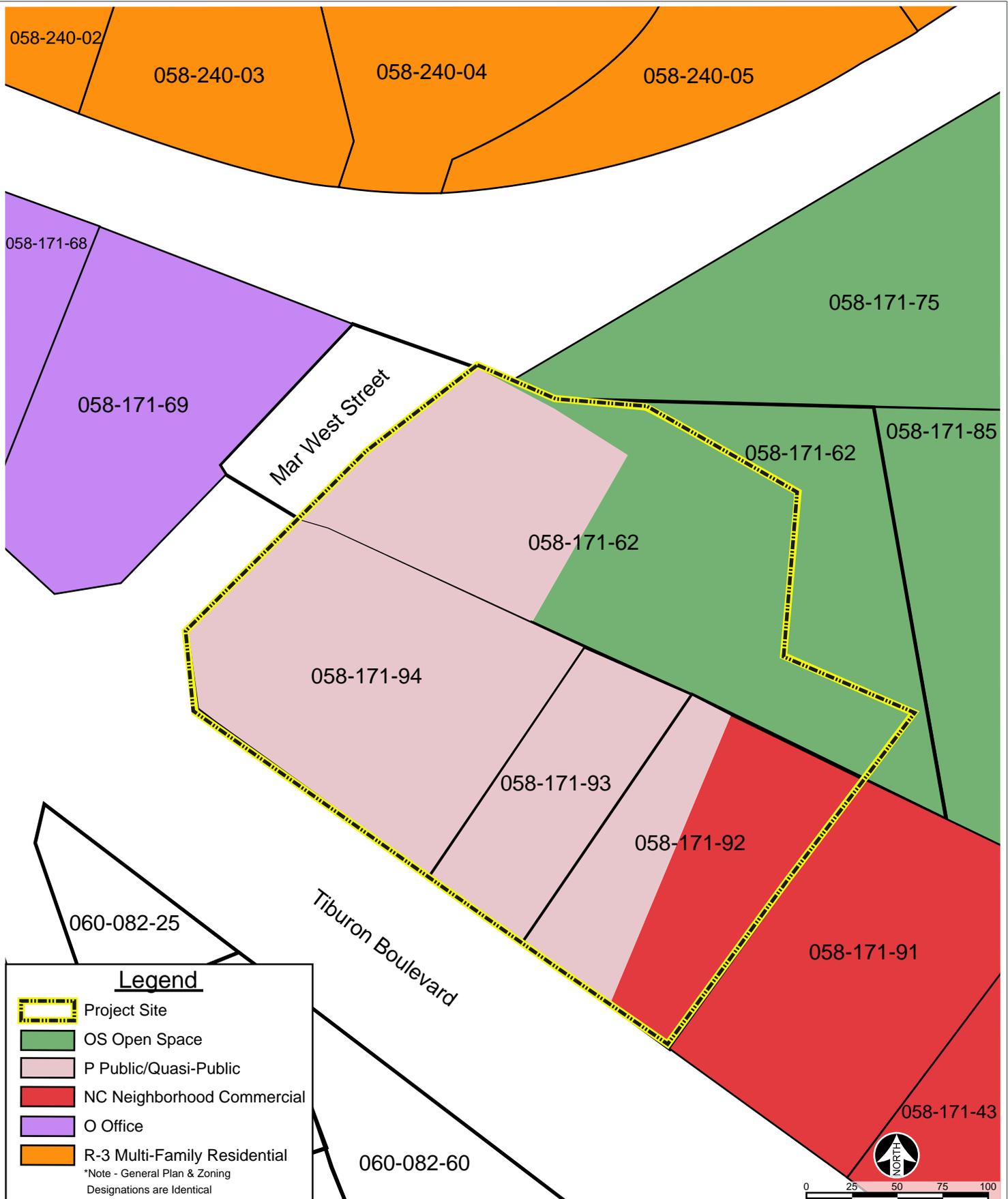
Irrigation lines serving Zelinsky Park are also located near or under the project site. A Pacific Gas and Electric Company 10-foot wide electrical easement and box are located at the western edge of the project site. These serve the existing library. An easement line for a grade crossing agreement runs along the eastern side of Mar West Street. This easement is left over from the earlier railroad line that previously existed at the site.

Existing Land Use Regulations

Land use for the project site is governed by the Town of Tiburon General Plan (Tiburon 2020) and the Zoning Ordinance of the Town of Tiburon. The northeastern half of the project site is roughly located within the boundaries of Planned Development No. 42, also known as the Point Tiburon Planned Development. A Master Plan and a Precise Plan have previously been adopted for the Point Tiburon Planned Development.

General Plan

As shown in Figure III-4, Tiburon 2020 designates APN 058-171-94, 058-171-93, and portions of APN 058-171-92 and APN 058-171-62 as Public/Quasi-Public (P). This land use category is intended for educational facilities, governmental and quasi-public building or facilities; utility facilities and similar facilities owned or operated by public/non-profit agencies. The maximum Floor Area Ratio (FAR) is 1.0. Tiburon 2020 designates the remaining portion of APN 058-171-62 as Open Space (OS). This category is intended for lands that are set aside for natural resource protection, public health and safety, scenic qualities, and for passive recreation (such as hiking trails). The maximum FAR is 0.1 for existing buildings, and no new buildings are allowed.



Source: <http://gis.co.marin.ca.us/MMDataviewer>, April 27, 2009; Tiburon Zoning Map & General Plan Land Use Diagram.

Point Tiburon Master Plan and Point Tiburon Precise Plan

The Point Tiburon Master Plan, adopted in 1979, and the Point Tiburon Precise Plan, adopted in 1980, both designate the portions of the project site within APN 058-171-62 as Open Space. In 2004, the Town amended the Point Tiburon Master Plan and Point Tiburon Precise Plan to re-designate approximately 0.37 acres of APN 058-171-62 to Public/Quasi-Public (P).

Zoning

As shown in Figure III-4, the Tiburon Zoning Ordinance designations for the various parcels and portions of parcels correspond directly to the Tiburon 2020 General Plan designations. Specifically, the portions of the project site designated as Public/Quasi-Public in the General Plan are zoned Public/Quasi-Public in the Zoning Ordinance, and the portions of the project site designated as Open Space in the General Plan are zoned as Open Space. Through a prior mapping discrepancy, a portion of the existing Tiburon Town Hall parcel is designated as Neighborhood Commercial.

The Public/Quasi-Public (P) zone is intended to provide for public and quasi-public uses, and to recognize existing public and quasi-public uses and facilities which are expected to remain in a similar use in the foreseeable future. Uses allowed in this zone include parks, open spaces, educational, institutional, recreational, utility, and governmental buildings and facilities. Building limitations for this zone state that building heights shall not exceed 30 feet, lot coverage shall not exceed 50 percent; minimum lot size is 10,000 sf, and the maximum FAR shall not exceed 1.00 (including associated parking structures). Per Section 16-32.040 of the Zoning Ordinance, libraries require a minimum of one parking stall per 500 sf of gross floor area.

The Open Space (OS) zone is intended to preserve those lands within the Town set aside for permanent open space. While much of the open space-zoned land in Tiburon is publicly owned, a considerable portion is privately held with recorded use restrictions limiting the property to open space use. Uses permitted in this zone include passive recreational and open space uses such as hiking, picnicking, and the enjoyment of nature. Building limitations for this zone state that there shall be no new structures allowed on open space lands. Existing structures may be maintained or reconstructed as provided in Sections 16-26.040 of the Zoning Ordinance when consistent with the General Plan.

Surrounding Land Uses

Surrounding land uses include commercial, office, residential and open space. Commercial and residential uses are present along the south side of Tiburon Boulevard. Additional commercial uses are present east of the project site. Multi-family residential uses and an office complex are present to the north and west of the project site. The Railroad Marsh, which is designated as an Open Space area, is located northeast of the project site. Surrounding land uses are shown in Figure III-5.



View 1: View from project site looking northwest.



View 2: View from project site looking northeast.



View 3: View from the project site looking northeast.



View 4: View from Peninsula Club looking southwest towards the project site.

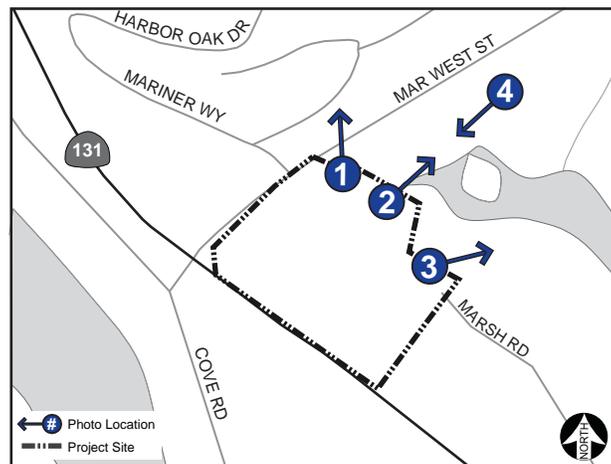


PHOTO LOCATION MAP

Source: Christopher A. Joseph & Associates, 2009.



B. PROJECT CHARACTERISTICS

The proposed project would expand the existing Belvedere-Tiburon Public Library through the construction of a two-story addition. The existing 10,500 sf Library (11,990 sf including a mechanical mezzanine area) would be expanded by 18,000 sf to 28,500 sf (29,990 sf including the mechanical mezzanine area) in floor area. The project would also result in changes to vehicular access points; changes to site parking, including the installation of a new fifty-two (52) space car parking area; and relocation of the existing Zelinsky Park. Approximately fifty-one (51) existing parking spaces would be eliminated by the project.

The project would also include lighting and landscaping improvements, including the installation of a Town Plaza and Zelinsky Promenade/Garden Plaza extending from Tiburon Boulevard to Zelinsky Park, restoration of the existing Zelinsky Park area, landscaping, and installation of a Story Time Area and Staff Patio.

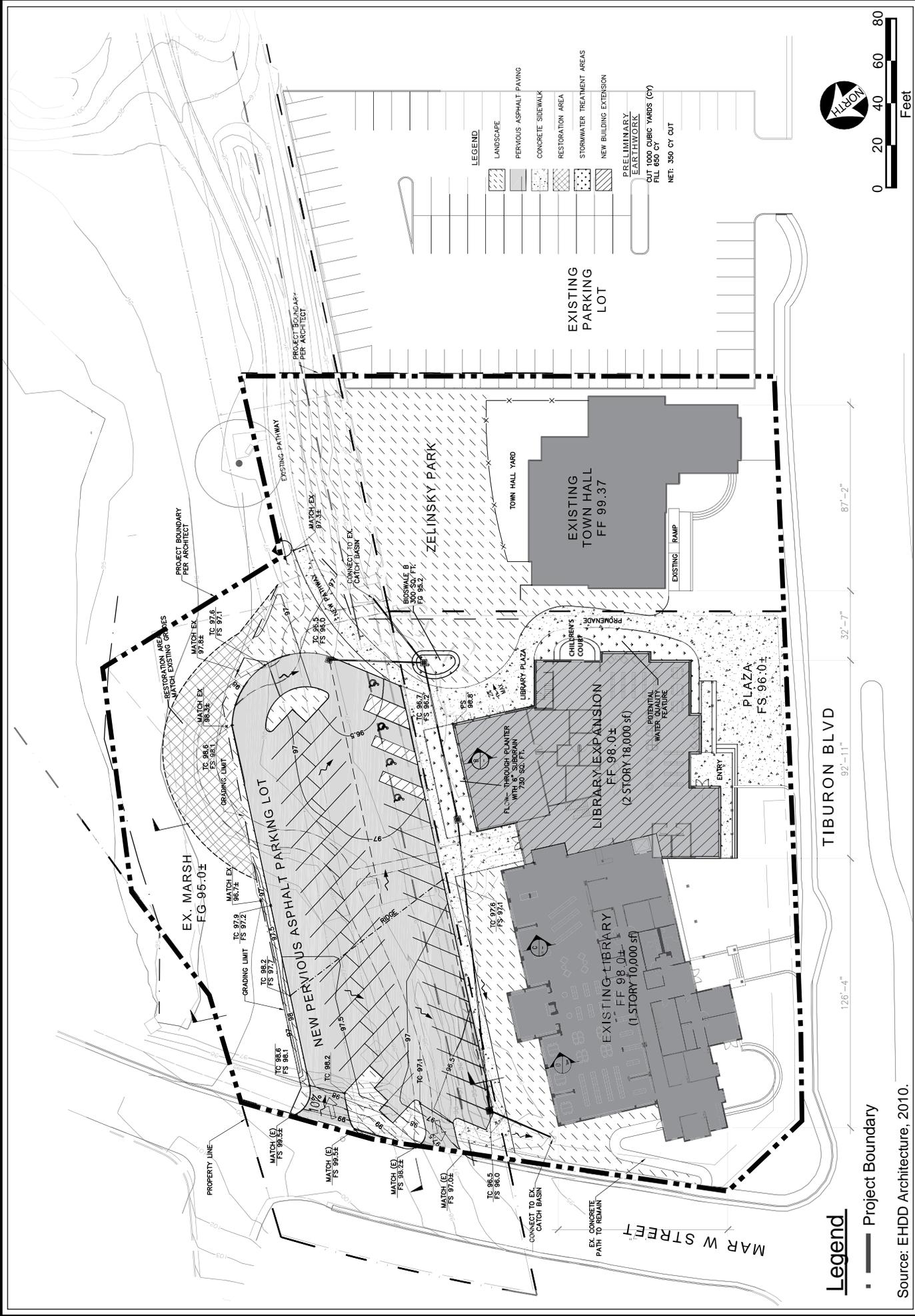
One bioretention treatment area is proposed to the south of the parking area. The parking lot would be surfaced with a combination of asphalt, pervious asphaltic concrete and landscaped with trees and plants. Stormwater would flow through the pervious paving. Additionally, runoff from the roof of the proposed Library addition would flow to a ground flow thru planter located to the north of addition.

The proposed site plan is shown in Figure III-6. A conceptual cross section of the parking area is shown in Figure III-7. Conceptual plans and views are illustrated in Figures III-8 through III-13 and described further below.

The proposed project would increase the existing development intensity on the Library parcels from an FAR of 0.46 to an FAR of approximately 0.69. This change in FAR translates to an increase in total square footage on those parcels from approximately 11,990 sf to approximately 29,990 sf, or a net change of 18,000 sf. Upon buildout of the proposed project, impervious area would be increased from approximately 38 percent to approximately 42 percent.

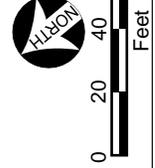
Library Expansion and Operations

As shown in Figure III-8, the Library expansion would be constructed as an addition to the Library, extending east from the existing building. It would occupy a portion of the existing parking lot that currently serves the Town Hall and Library. As discussed below, the existing parking area between the Library and Town Hall would be relocated to the north and behind the existing Library and proposed addition. Figures III-9 and -10 illustrate the proposed Library program areas and floor plan for the first and second levels. As shown in Figures III-11 through III-13, the Library addition would be the same height as the existing Library, creating a continuous roofline with no increase in overall building height.



LEGEND

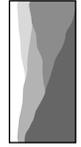
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[Pattern]	CONCRETE SIDEWALK
[Pattern]	RESTORATION AREA
[Pattern]	STORMWATER TREATMENT AREAS
[Pattern]	NEW BUILDING EXTENSION
[Pattern]	PRELIMINARY EARTHWORK
[Pattern]	CUT 1000 CUBIC YARDS (CY)
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[Pattern]	NET: 350 CY CUT



Legend

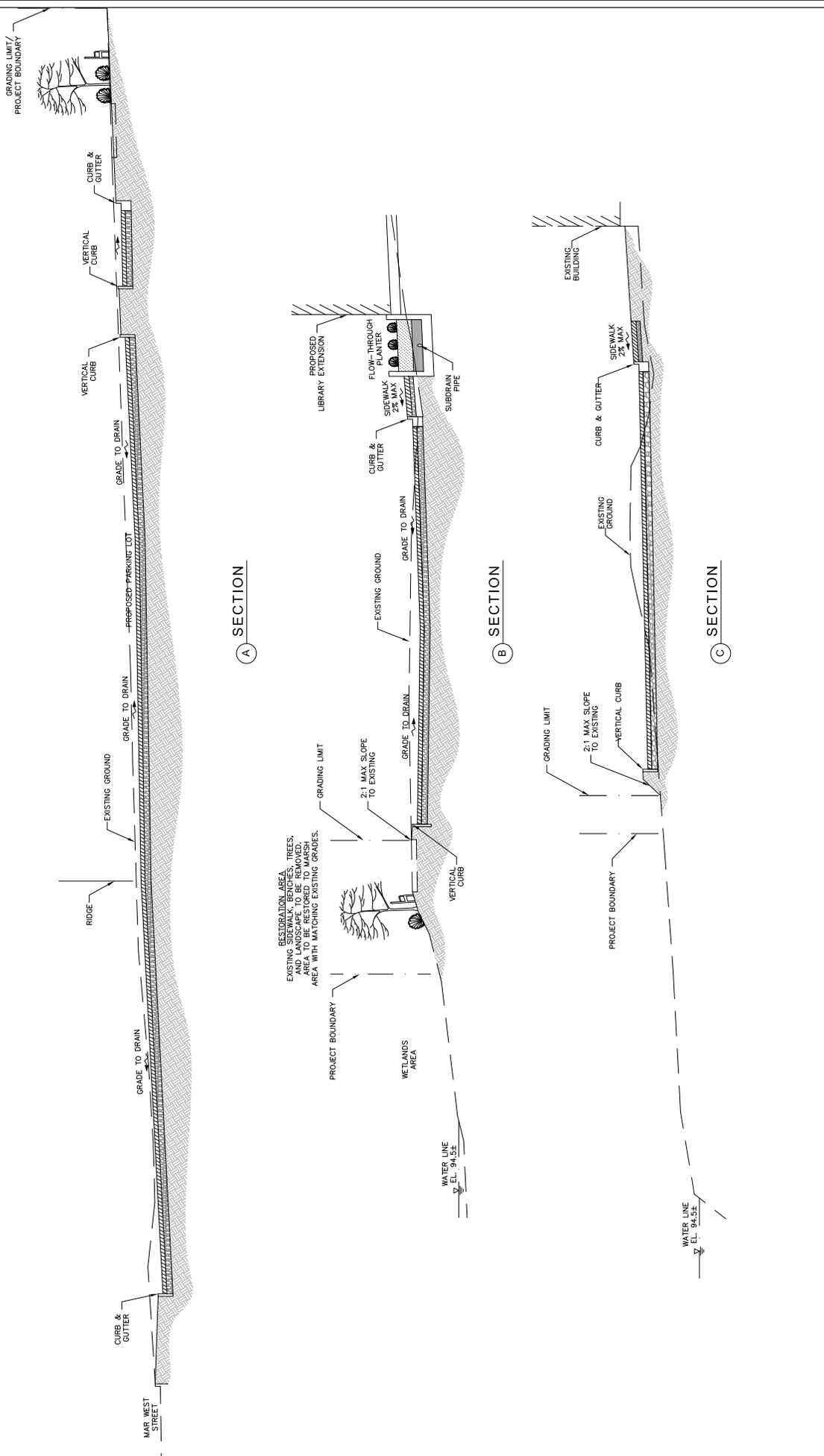
- Project Boundary

Source: EHDD Architecture, 2010.



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Belvedere-Tiburon Library Proposed Site Plan
Figure III-6

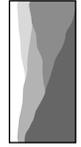


A SECTION

B SECTION

C SECTION

Source: BKF Engineers, March 11, 2010.



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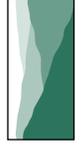
Figure III-7
Project Cross Section

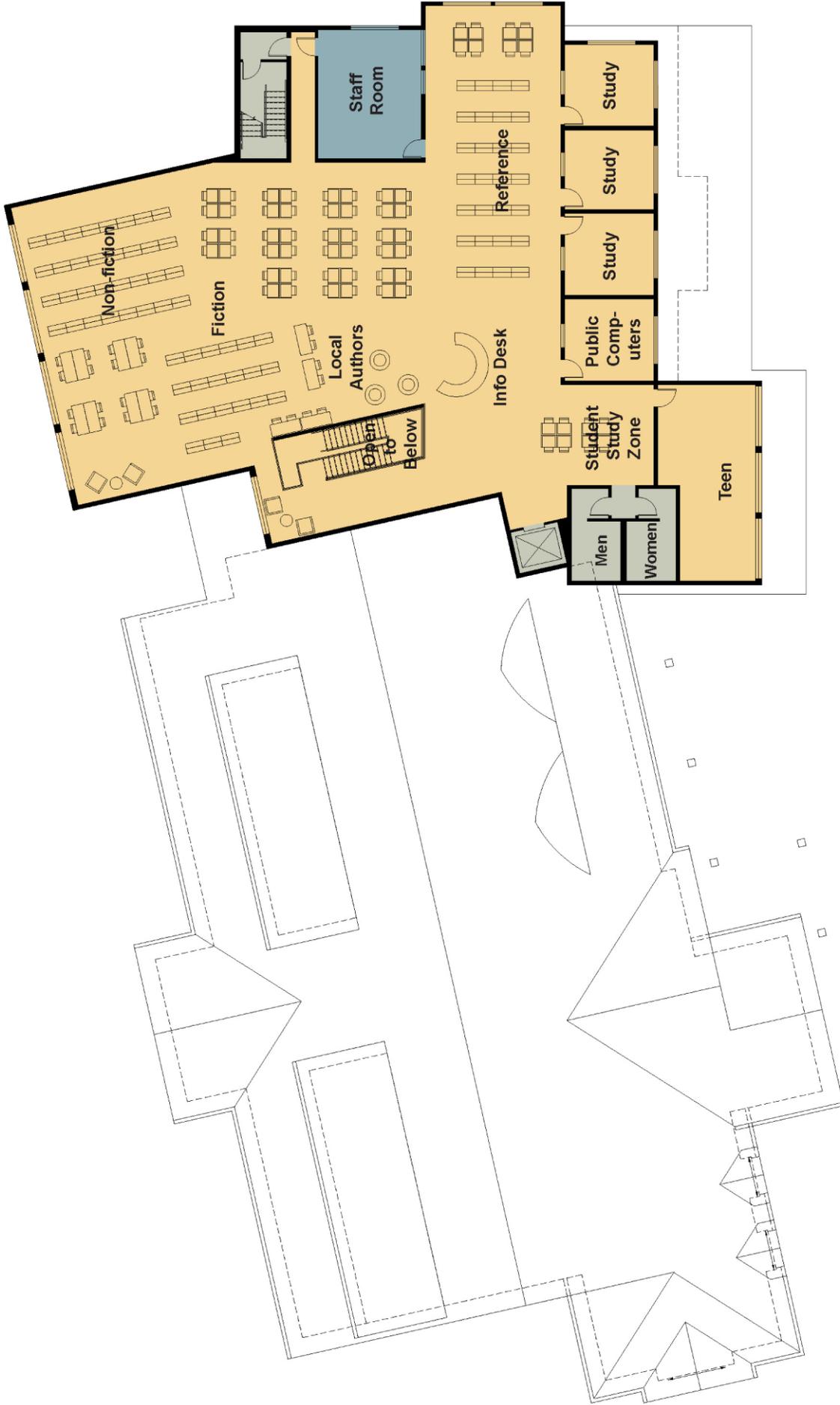


Source: EHDD Architecture, March, 2010.

Figure III-9
Belvedere-Tiburon Library Conceptual First Level Plan

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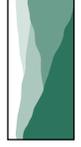
Source: EHDD Architecture, March 2010.

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Figure III-10
 Belvedere-Tiburon Library Conceptual Second Level Plan



Source: EHDD Architecture, November 6, 2008.



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Figure III-11
Belvedere-Tiburon Library Conceptual View from Tiburon Boulevard I



Source: EHDD Architecture, November 6, 2008.

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Figure III-12
Belvedere-Tiburon Library Conceptual View from Tiburon Boulevard at Mar West



Source: EHDD Architecture, November 6, 2008.

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Figure III-13
Belvedere-Tiburon Library Conceptual View from Mar West

The second floor of the addition would be accommodated through the use of a dormered roof. The architectural style and exterior materials of the addition would be similar to and compatible with the existing Library. The roof of the existing Library would be replaced with similar material to the addition. Runoff from the roof would be conveyed to a bioretention area to the north of the Library.

The Library addition would include two public entries, one to the south of the building allowing access from Town Plaza and one at the rear (north) allowing access from the parking lot. Both entries would be ADA compliant. The existing Library entry from Tiburon Boulevard would be maintained. An existing ramped emergency exit door opening onto Mar West Street would be converted into an additional staff entry into the building.

In part, the expansion of the Library would provide the following:

- Increased Children's Services library and a Children's Program Room, including an indoor Story Time area;
- A Young Adult/Teen shelving, study and program area;
- Quiet Study and Groups Study rooms;
- New, enlarged Community Room;
- Storage space;
- Office space;
- Computer resource center;
- Increased use of automation technologies for patron self-service and library staff efficiency;
- Increased book shelving capacity;
- A small bookstore café or coffee cart service; and
- A used book sales area.

The hours of operation for the Library are not expected to change from the existing hours: 10:00 a.m. to 6:00 p.m. on Monday, 10:00 a.m. to 9:00 p.m. on Tuesday, Wednesday, and Thursday; 10:00 a.m. to 5:00 p.m. on Friday and Saturday; and 12:00 p.m. to 5:00 p.m. on Sunday. Some evening activities such as lectures, movie screenings, and similar civic activities would occur in the new addition and could occur up until 9:30 p.m. Full time employees may increase from 12 to 14 upon implementation of the project.

The Library would include new outdoor amenities, such as plazas, courtyards, and Staff Patio, which are described below. Other major project components are discussed below in greater detail.

Landscaping Overview

The proposed expansion of the Belvedere Tiburon Library offers an opportunity to create unique outdoor spaces that enhance the site's natural environment and views, improve pedestrian circulation and extend

the programmatic features of the new library space into the landscape. The goals of the landscape plan include: providing the Library and City Hall with an arrival and event space called Town Plaza, creating strong pedestrian connections to new site features along with a visual link to the wetland, and enhancing the relationship between the new Library and its environs for all users, including staff and visitors of all age groups. The existing trees along Tiburon Boulevard will be preserved. The existing mature tree and narrative plaque in the existing Zelinsky Park describing the importance of the Zelinsky family to the area would be maintained.

In order to protect the Railroad Marsh wetland, site improvements such as paths would be kept outside a 25-foot wetland buffer zone. Any construction disturbance to the buffer zone such as the relocation of the existing Zelinsky Park would require the following landscape treatment: re-grading to match existing and new grades while preventing erosion, and planting the area with grasses that are both native to the region and appropriate for planting adjacent to emergent vegetation. An informal recreational path of decomposed granite or asphalt would be installed running along this grassy upper shore, outside the 25' buffer. Wetland restoration is not considered a requirement of this project, however, existing vegetation in the area includes rather dense shrubs at the northern edge of the marsh, adjacent to Mar West Street. These shrubs and would remain undisturbed and be protected during construction.

Zelinsky Park

Zelinsky Park plays a crucial role in the community and the new site plan takes measures to retain key components of the existing Park. The proposal for relocating the Park maintains several essential design features, including an open turf lawn bordered by an informal, curving path, along with accent trees for spatial definition and shade. The proposed Zelinsky Park would be relocated adjacent to the proposed library Plaza and Town Hall. Portions of the improved areas of Zelinsky Park would be relocated to an area behind the Town Hall building and would replace the existing 19 parking spaces currently located behind the building. The Park would be designed in a semi-formal manner similar to the existing park. The Park would be accessible via paved pathways from both the Library and Town Hall. Pedestrian access to Zelinsky Park from Tiburon Boulevard would be via the Zelinsky Promenade/Garden Plaza, which would be located between Town Hall and the Library addition and which would create a park-like connection to the street and new Town Plaza.

Multi-Use Pathway

The existing multi-use pathway connecting areas southeast of the site to Zelinsky Park and Mar West Street would be rerouted to accommodate the relocated Zelinsky Park and would connect to the Zelinsky Promenade/Garden Plaza. The path would consist of decomposed granite and would provide access and connection to all areas of the project site.

Parking Lot

The new 52-space parking lot would be accessed from Mar West Street. Four (4) spaces in the lot would be ADA compliant. The lot would serve both the Library and Town Hall. The lot would be surfaced with

a combination of asphalt, pervious asphaltic concrete, and landscaped with trees and plants. Stormwater would flow through the pervious paving. The Library addition would have rain water leaders outfall directly into an above ground flow thru planter. In both of these facilities, the stormwater would filter through a layer of sandy loam at an infiltration rate of 5 inches per hour. The clean stormwater would be collected in a perforated pipe surrounded by Class II permeable base and discharged into the public storm drain system. The tree planting plan in the parking lot would include: shade trees at parking islands to reduce heat island effect and perimeter trees that provide screening of cars from Zelinsky Park while preserving views of nearby hills.

Town Plaza

The proposed Town Plaza would be an open informal space with pedestrian access connecting the Library and Town Hall. The plaza would be versatile, accommodating both programmed events and everyday uses. The surface of the plaza would be precast concrete pavers in a band pattern. The paving would be broken up by accent trees in raised concrete planters. These planters would also support a series of wood benches that can be utilized for small group gatherings, as well as provide seating for larger events. The trees and planters would create an arrival threshold for both the library expansion and Town Hall, while also unifying the plaza space.

Zelinsky Promenade/Garden Plaza

The Zelinsky Promenade/Garden Plaza would be a curving, linear pathway and landscaped area intended as both a pedestrian connection between the Town Plaza and Zelinsky Park. This curvilinear garden would serve as a pedestrian link between the Town Plaza and wetland frontage, as well as offering an intimate sensory experience. The central pathway is a continuation of the concrete pavers found in the Town Plaza. Along either side of the curving path are informal gardens that feature shade trees, shrubs and ground covers that would feature year-round color and texture. The Zelinsky Promenade/Garden Plaza would provide an important visual link between Tiburon Boulevard and Railroad Marsh and surrounding hills.

Outdoor Story Time Area

An outdoor gathering space for Children's programming would be located at the northeast edge of the Library addition in a Story Time Area. The space would consist of a low amphitheater consisting of two to three concrete steps facing the building, separating pedestrian space from the Story Time Area. Vegetation on the back side the amphitheater would screen this area from the parking lot.

Library Plaza

The northeast edge of the Library addition would feature a small-scale plaza for informal gatherings adjacent to the relocated Zelinsky Park. The space would offer a buffer from the main path running through the site without obscuring views into the park. The space would be adjacent to the Children's Library and suitable for use for children's programming.

Staff Patio

The Staff Patio would be located on the west corner of the project site near the corner of Tiburon Boulevard and Mar West Street in a landscaped area. The patio would provide a dedicated space for staff use along Tiburon Boulevard. Screening elements such as shrub and tree plantings would be employed to offset any traffic noise from the street. The patio would also be terraced in two levels, separated by 2 to 3 steps with raised concrete planters separating the patio from the garden. Patio paving would be precast concrete pavers, and site furnishings would include movable tables and chairs with umbrellas.

Streetscape

The existing street trees along Tiburon Blvd. would be preserved where possible and additional trees planted as required to fill in. Near the plaza arrival space, the street trees would merge with the plaza grove to create a seamless, inviting edge between the public sidewalk and the new Town Plaza.

Vehicle and Pedestrian Access and Circulation

Vehicular access to the project site would be relocated from Tiburon Boulevard to two dedicated one way driveways driveway on Mar West Street. The curb cut along Tiburon Boulevard that serves the existing parking lot would be closed. Additional street parking would be provided along Tiburon Boulevard in place of the existing curb cut.

Lighting

Site and architectural lighting systems would be installed to provide illumination levels recommended for safety for pedestrian and vehicular traffic by the Illumination Engineering Society of North America. Lighting would be designed to appropriately illuminate signage and wayfinding system components to make information clearly legible at night. Lighting would be designed to avoid unnecessary light pollution by use of “cut-off” fixtures designed to prevent the upward cast of light where appropriate and to consider ambient light generated by buildings in the design of site lighting systems to help prevent over lighting. Lighting would be designed to conform with the U.S. Green Building Council LEED “Light Pollution Reduction” standards. Lighting design would consider color rendition, energy consumption and long term maintenance.

Greening Concepts

The proposed expansion would embody sustainable design goals and would seek certification with the United States Green Building Council LEED program. The building would be designed to reduce energy consumption through high-efficiency lighting and HVAC systems, extensive use of indoor daylight, and an efficient building envelope. Site design would use design strategies that reduce runoff water quantities and ensure good water quality. As discussed above, lighting would be designed to reduce light pollution to the outdoors. Building materials will be high in recycled content, use renewable resources, and wood will be sourced from sustainable forests.

Construction Activities

The site is fairly level and thus extensive grading is not anticipated at this time, although some filling and overall soils import would be required. The exact amount of grading would be determined when a specific building design is finalized. Construction vehicles are anticipated to use Tiburon Boulevard and Mar West Street for access to the site. Construction would occur over 14 to 18 months.

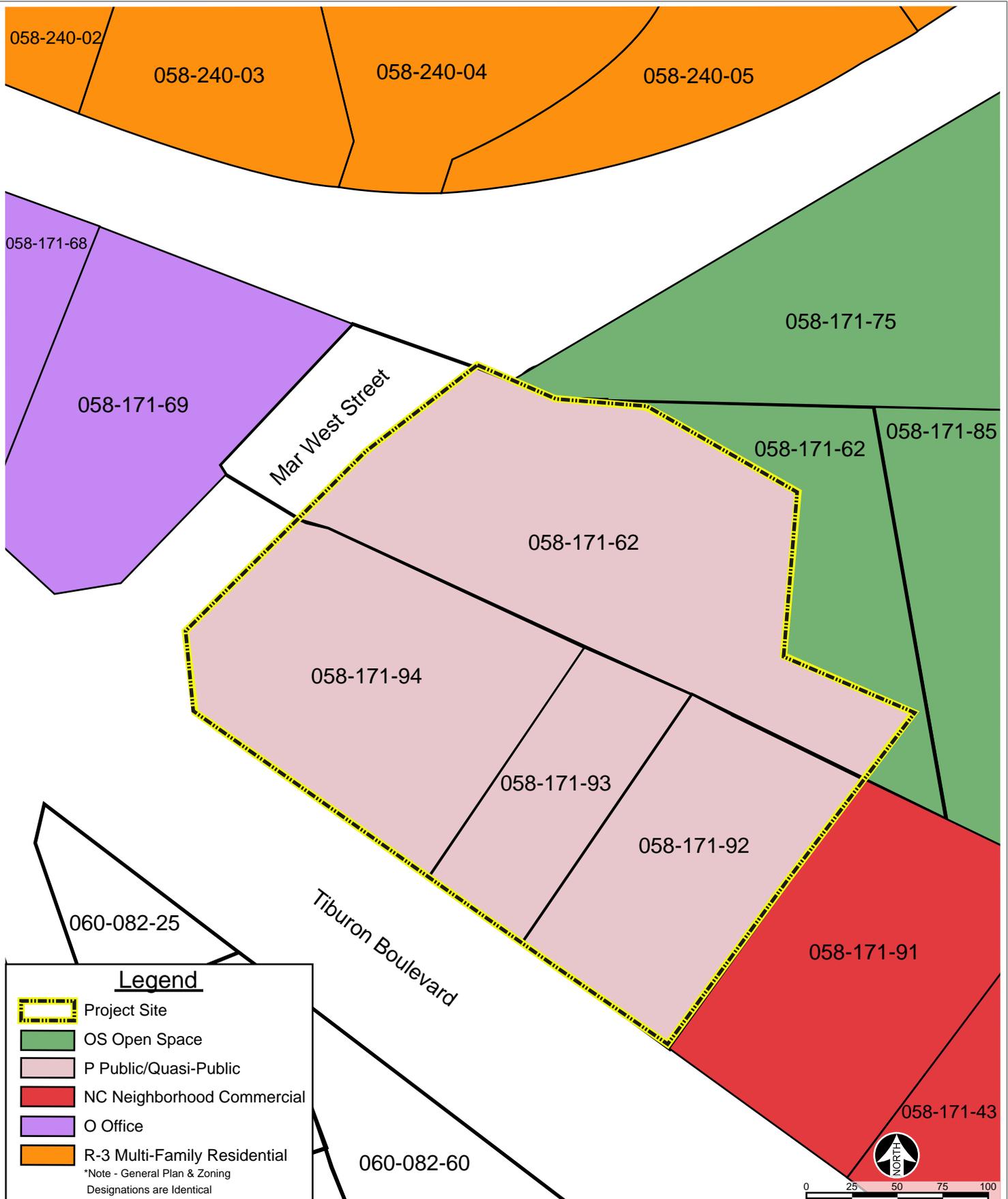
Proposed Land Use

To be consistent with the Town of Tiburon General Plan, Point Tiburon Master Plan, Point Tiburon Precise Plan, and the Zoning Ordinance of the Town of Tiburon, the proposed project would require General Plan Amendments, a Master Plan Amendment, a Precise Plan Amendment, and a rezoning. The approximately 15,000 square foot portion of the Town-owned parcels currently designated in the General Plan and Point Tiburon Master Plan and Point Tiburon Precise Plan as Open Space would be re-designated as Public/Quasi-Public (see Figure III-14). Those same portions would need to be rezoned from Open Space to Public/Quasi-Public in the Tiburon Zoning Ordinance. In addition, Policy OSC-20 in the Town of Tiburon General Plan would be amended to add an exception from the 100-foot setback provision in the case of public projects benefiting a substantial segment of the community.

C. PROJECT OBJECTIVES

The objectives of the proposed project include the following:

- Create new spaces that will allow the Library to better fulfill its mission as a learning, technology, and cultural center for all age groups.
- Increase shelving and floor space for library collections in all formats.
- Expand the Children's Room to offer services to children up to age 12. The current space is adequate only for children up to toddler age.
- Add a new Teen Area that will feature relevant materials and collections, a teen gathering space, and group and quiet study areas.
- Provide increased seating capacity and work spaces in public areas.
- Create a dedicated technology center with 20 computer stations. The technology center will allow for hands-on daily training and supported patron computer access.



Source: <http://gis.co.marin.ca.us/MMDataviewer>, April 27, 2009; Tiburon Zoning Map & General Plan Land Use Diagram.

- Expand programming space to provide:
 - A meeting room for 80+ adults
 - Storytelling space for 30 children and parents
 - A conference room for 10-14
 - Four small study rooms
- Enlarge work and office space for library staff and volunteers
- Create new space for a library bookstore and a small café to serve as revenue sources for the library.
- Expand storage space in all areas of the Library.

D. DISCRETIONARY ACTIONS

Implementation of the proposed project would typically require the following actions or approvals from the Town of Tiburon or other agencies:

- General Plan Amendment (includes revisions to the Tiburon 2020 Land Use Diagram and Tiburon 2020 text)
- Master Plan Amendment to the Point Tiburon Master Plan (PD#42)
- Precise Plan Amendment to the Point Tiburon Precise Plan (PD#42)
- Rezoning
- Conditional Use Permit
- Site Plan and Architectural Review approval
- Building permit
- Encroachment permits (Caltrans and Town of Tiburon)

The Tiburon General Plan Downtown Element Program DT-u calls for the Town to “facilitate expansion of the Belvedere-Tiburon Public Library by employing streamlined permit review processes typically used for major public projects.” Past uses of streamlining have generally involved exempting a project from the Zoning Ordinance provisions (including but not limited to Conditional Use Permit and Site Plan

and Architectural Review permits) in lieu of a formal permitting review procedure conducted solely by the Tiburon Town Council.

Other approvals from local entities are expected to include the following:

- Permission from Sewerage Agency of Southern Marin (SASM) for development over the existing 15-foot easement that includes a pressure wastewater treatment line.
- Approval from Marin Municipal Water District (MMWD) for relocation of an on-site underground water line and easement.
- Approval from Pacific Gas & Electric Company (PG&E) for relocation of an on-site underground electrical line and underground utility box and new easement.
- Approval from Tiburon Fire Protection District (TFPD) for adequate fire suppression access and in-building sprinkler system.
- Approval from Sanitary District No.5 for connection of the new facilities to the public sewer system.

In addition to the Town and the above agencies, several federal, state, and regional responsible agencies may have discretionary authority over specific aspects of the proposed project. These include, but are not limited to, the following:

- Army Corps of Engineers (Corps) — Issuance of a 404 permit for the discharge of dredged or fill material into the waters of the United States, including wetlands.
- California Department of Transportation (Caltrans) — Issuance of an Encroachment Permit for changes to access on Tiburon Boulevard (SR-131). Ensures compliance with all traffic related standards relative to state highways.
- Bay Area Regional Water Quality Control Board (RWQCB) — Issuance of a National Pollution Discharge Elimination System Permit (NPDES) for construction activities disturbing more than 1 acre and permit for dewatering during construction, and approval of operational stormwater treatment. Issuance of a 401 certification for impacts to wetlands/waters of the state.
- Bay Area Air Quality Management District (BAAQMD) — BAAQMD ensures that all applicable federal and state air quality standards are achieved and maintained.

In addition, the project may require Section 7 consultation with U.S. Fish and Wildlife Service (USFWS) for potential impacts to sensitive species, in coordination with CDFG.

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IV. ENVIRONMENTAL IMPACT ANALYSIS

A. IMPACTS FOUND TO BE LESS THAN SIGNIFICANT

INTRODUCTION

Section 15128 of the CEQA Guidelines states:

“An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.”

As allowed under Section 15128 of the CEQA Guidelines, this section discusses why implementation of the proposed project would not result in significant environmental impacts related to the topics listed below and, therefore these issues are not discussed in detail in Section IV of this Draft EIR.

AGRICULTURE AND FOREST RESOURCES

The project would not result in the conversion of state-designated agricultural land from agricultural use to another non-agricultural use. According to the Farmland Mapping and Monitoring Program (FMMP), the project site is designated as urban or built-up land and does not contain prime farmland, unique farmland, or farmland of statewide importance.¹ Therefore, implementation of the proposed project would not result in any impacts related to the conversion of important farmland. No significant impacts would occur and no further analysis of this issue is required.

The project would not result in a conflict with existing zoning for agricultural use or a Williamson Act contract. The project site is located along Tiburon Boulevard and consists of parcels that are designated Public/Quasi-Public (P) or Open Space (OS) by the Town of Tiburon General Plan and Tiburon Zoning Ordinance. Neither of these designations allows agricultural uses. The project site is not subject to a Williamson Act contract.² Furthermore, there are no parcels zoned for agricultural use or under a Williamson Act contract in the project area. Therefore, implementation of the proposed project would not conflict with zoning for agricultural use or a Williamson Act contract. No significant impacts would occur and no further analysis of this issue is required.

The Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). As stated above, the project site is designated Public/Quasi-Public (P) or Open Space (OS) by the Town of Tiburon General Plan and Tiburon Zoning Ordinance. No lands on the project site are zoned as forest

¹ Farmland Mapping and Monitoring Program, Marin County Important Farmland 2006(map), website: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2006/mar06.pdf>, accessed July 28, 2009.

² Williamson Act Program, Marin County Williamson Act Lands 2006 (map), website: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Map%20and%20PDF/Marin/Marin_wa_06_07.pdf, accessed July 28, 2009.

land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). Therefore, development of the proposed project would not conflict with zoning forest land, timberland, or Timberland Production. No significant impacts would occur and no further analysis of this issue is required.

The Project would not result in the loss of forest land or conversion of forest land to non-forest use. As stated above, development of the proposed project would not convert any forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)) to a non-forest land use. Moreover, the project site is surrounded by developed land also designated as urban or built-up land. No significant impacts would occur and no further analysis of this issue is required.

The Project would not 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. As stated above, the project site is surrounded by developed land also designated as urban or built-up land and there are no lands designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance or any forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)) on the site or in the surrounding area. Therefore, development of the proposed project would not result in any impacts to agricultural, forest, or timberland resources as related to conversion of farmland to non-agricultural use. No significant impacts would occur and no further analysis of this issue is required.

CULTURAL RESOURCES

Responses to these thresholds are based on the results of a cultural resources survey prepared for the proposed project by Tom Origer & Associates on July 24, 2009. See Appendix B for the full text of the report.

Archival research found that the study area had not been surveyed for the presence of cultural resources and that there are seven known archaeological sites within a one-half mile of the project. Two previous surveys were conducted adjacent to the study area. In 1984, David Chavez surveyed about eight acres east of the existing library for a marsh reclamation project that expanded the capacity of a small lagoon. More recently, Caltrans archaeologists completed a study along Tiburon Boulevard (State Route 131) between Highway 101 and the Town of Tiburon for a highway resurfacing project. Neither survey identified cultural resources that could extend into the present study area.

Review of ethnographic literature found no report ethnographic sites within or near the study area. Historical maps show that the project location was bay and marshland during the 1800s and the first half of the 1900s. No buildings are depicted within the study area. The Tiburon branch of the San Francisco &

North Pacific Railroad, which ran along the historical marsh edge, was completed in 1884 (Heig 1984:33-34), and is shown on the early maps. The railroad grade runs through the northern part of the study area.

The project would not cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5. No architecturally historic resources would be impacted by the proposed project because no historical buildings or structures are located on the project site.³ Therefore, implementation of the proposed project would not result in any impacts related a change in the significance of an architecturally historic resource. No significant impacts would occur and no further analysis of this issue is required.

The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5. No prehistoric or historical archaeological resources were found at the project site.⁴ Shell fragments were observed in the grassy area between the existing Library and the lagoon. However, none appeared to be archaeological in nature, as the fractures were relatively fresh and deterioration of the shell was minimal. These items might be a result of fill deposition and scouring of the lagoon during a reclamation project in the 1980s. However, there is the possibility that buried archaeological deposits could be present and accidental discovery could occur. As required under *CEQA Guidelines* § 15064.5, measures have been incorporated into the project in the event that archaeological remains are uncovered. Specifically, the project would incorporate the following measures as a condition of approval including:

CR-1: A Native American monitor and a qualified archaeologist shall be present during construction grading and trenching. In the event that additional subsurface archaeological resources are encountered during the course of grading and/or excavation, all development shall temporarily cease in these areas until the Town's Planning Department is contacted and a qualified archaeologist properly assesses the resources and makes recommendations for their disposition. Prehistoric archaeological site indicators include: obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire affected stones. Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps). Construction activities could continue in other areas. If any findings are determined to be significant by the archeologist, they shall be subject to scientific analysis; duration/disposition of archaeological specimens as agreed to by the Native

³ A Cultural Resources Survey of the Belvedere-Tiburon Library Expansion, Tiburon, Marin County, California, Vicki Beard of Tom Origer & Associates, July 24, 2009, at page 7.

⁴ *Ibid*, at pages 7 and 8.

American community, land owner, and the County; and a report prepared according to current professional standards.

The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. There are no known paleontological resources or unique geological features on the project site.⁵ Therefore, implementation of the proposed project would not result in any impacts related to the destruction of a unique paleontological resource or geologic feature. No significant impacts would occur and no further analysis of this issue is required.

The project would not disturb any human remains, including those interred outside of formal cemeteries. No human remains are known to be buried on the site. However, the project would incorporate the following measures as a condition of approval in the event that human remains are discovered. No significant impacts would occur and no further analysis of this issue is required.

CR-2: If human remains are encountered, excavation or disturbance of the location shall be halted in the vicinity of the find, and the county coroner contacted. If the coroner determines the remains are Native American, the coroner shall contact the Native American Heritage Commission. The Native American Heritage Commission shall identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendent shall make recommendations regarding the treatment of the remains with appropriate dignity.

GEOLOGY/SOILS

The site is located within the Coast Range Geomorphic Province of California. The regional bedrock geology consists of complexly folded, faulted, sheared, and altered sedimentary, igneous, and metamorphic rock of the Jurassic-Cretaceous age (65 to 190 million years ago). The regional topography is characterized by northwest-southeast trending mountain ridges and intervening valleys that were formed as a result of tectonic activity between the North American Plate and the Pacific Plate. Extensive faulting during the Pliocene Age (1.8 to 7 million years ago) formed the uneven depression that is now the San Francisco Bay. The more recent tectonic activity within the Coast Range Geomorphic Province is concentrated along the San Andreas Fault zone, a complex group of generally parallel faults.

The site is located on the southern edge of the Tiburon Peninsula on a reclaimed wetland. Geologic mapping by Rice, et al (1976) shows that colluvial deposits (Qc) exist within the property limits. These deposits are mainly unconsolidated and unsorted soil and weathered rock fragments transported downslope via gravity. The Library and proposed expansion are located near a geologic contact between the aforementioned colluvium, alluvium (material transported by rivers or streams), and fill over Bay

⁵ *Initial Study for the Belvedere-Tiburon Library Proposed Expansion General Plan Amendment and Rezoning, March 2004, at page 28.*

Mud. The Tiburon Peninsula Ridge is mapped mainly as Franciscan Melange (fm) consisting of sandstone, chert, greenstone, and serpentine.

No subsurface exploration has been conducted for the project as the design is still in the conceptual phase. However, based on the geotechnical investigation for the original Library construction and for the Town Hall site,^{6,7} subsurface conditions are expected to consist of approximately 10-feet of clayey fill over Bay Mud. Soft compressible Bay Mud underlies the fill and likely ranges in thickness from 30 to 40 feet. Bay Mud is a highly compressible, sensitive, marine clay deposit. Old Bay Clay underlies the Bay Mud and consists of stiff sandy clays. Groundwater, while varying seasonally, should be relatively close to the Bay Mud/Fill.

The project site was filled around 1966 to reclaim marshlands.^{8,9} The existing Library was completed in 1997 and the foundation consisted of a compensated mat foundation. The mat foundation included removing fill soils roughly equivalent to the dead and long-term live loads of the Library structure. Adding no new net load from the structure onto the site minimized new settlement of the underlying Bay Mud.

The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; or seismic-related ground failure, including liquefaction; or landslides. The project site is not located within an Alquist-Priolo¹⁰ Earthquake Fault Zone. The Hayward Fault is located ten miles east of the project site and the San Andreas Fault is located nine miles west of the project site. Therefore, implementation of the proposed project would not result in any impacts related to rupture of a known earthquake fault. No significant impacts would occur and no further analysis of this issue is required.

The project site is subject to seismic ground shaking similar to other areas in the seismically-active Bay Area. Due to its close proximity, the San Andreas Fault presents the highest potential for severe ground shaking, though earthquakes along several active faults in the region could cause moderate to strong ground shaking at the project site. The intensity of earthquake ground motion would depend on the characteristics of the generating fault, distance to the fault and rupture zone, earthquake magnitude, earthquake duration and site specific geologic conditions. The site is underlain with Soft Bay Mud and the

⁶ Miller Pacific Engineering Group, 1991. *Preliminary Geotechnical Report Proposed Town Hall Ned's Way Site Tiburon, California.*

⁷ Miller Pacific Engineering Group, 1993. *Geotechnical Investigation Tiburon Library, Tiburon, California.*

⁸ Miller Pacific Engineering Group, 1991. *Preliminary Geotechnical Report Proposed Town Hall Ned's Way Site Tiburon, California.*

⁹ Miller Pacific Engineering Group, 1993. *Geotechnical Investigation Tiburon Library, Tiburon, California.*

¹⁰ *The Alquist Priolo Earthquake Fault Zoning Act prohibits placing most structures for human occupancy across traces of active faults. These fault zones are shown on maps issued by the Department of Conservation's Division of Mines and Geology.*

UBC soil type of SE (soft soil site) that applies to the project area may significantly amplify earthquake ground motions depending on the earthquake characteristics and local geologic conditions.¹¹

As part of the project design phases, a design-level geotechnical investigation would be conducted as part of the design phase to evaluate site response and seismic criteria for structural design. The proposed project would be required to comply the Uniform Building Code and with the requirements as recommended in the geotechnical report. Project design plans would be reviewed by the Town for compliance prior to issuance of grading and building permits. No significant impacts would occur and no further analysis of this issue is required.

Liquefaction refers to the sudden, temporary loss of soil strength during strong ground shaking. This phenomenon can occur where there are saturated, loose, granular (sandy) deposits subjected to seismic shaking. Liquefaction-related phenomena include seismically-induced settlement, flow failure, and lateral spreading. Based on the subsurface exploration for the existing Library and Town Hall, and the mapped geology, liquefiable soils at the site are not anticipated.¹² Therefore, implementation of the proposed project would not result in any impacts related to seismic-related ground failure, including liquefaction. No significant impacts would occur and no further analysis of this issue is required.

Landslides are not considered a hazard because the surface topography of the project site is relatively flat. Therefore, implementation of the proposed project would not result in any impacts related to landslides. No significant impacts would occur and no further analysis of this issue is required.

The project would not result in substantial soil erosion or the loss of topsoil. Sandy soils on moderate slopes or clayey soils on steep slopes are susceptible to erosion when exposed to surface water flows. Within the project area, surficial soils are relatively clayey and slopes are relatively flat. However, concentrated surface water flows could result in localized erosion. The project would include a bioretention treatment area to the south of the parking area. The parking lot would be surfaced with a combination of asphalt, pervious asphaltic concrete and landscaped with trees and plants. Stormwater would be flow through the pervious paving. Additionally, runoff from the roof of the proposed Library addition would flow to a ground flow thru planter located to the north of addition. With implementation of these project features, it is not anticipated that any impacts related to substantial soils erosion or the loss of topsoil would result. No significant impacts would occur and no further analysis of this issue is required.

The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. As stated above, implementation of the proposed project would not result in any significant impacts related to seismic-related ground failure, including liquefaction, or

¹¹ *Initial Study for the Belvedere-Tiburon Library Proposed Expansion General Plan Amendment and Rezoning, March 2004 at page 30.*

¹² *Ibid, at page 32.*

landslides. An estimated 30 to 40 feet of soft compressible Bay Mud underlies the site. Based on the 1993 investigation by Miller Pacific Engineering Group, the original site elevation (prior to filling in 1966) was most likely at or slightly above sea level. Settlement of the Bay Mud has occurred since the placement of the fill, and it is estimated that an additional four inches of settlement may occur over the next 50 years. Any new load placed on the site would cause additional settlement.

As part of the design phase, a geotechnical report would be prepared for the project that investigates the specifics of the site and recommends grading, design, and construction requirements that would be incorporated into the project design. The geotechnical report would be reviewed together with the project plans by the Town as part of the project approval process to ensure compliance with these requirements. No significant impacts would occur and no further analysis of this issue is required.

The project would not be located on expansive soil, creating substantial risks to life or property. Based on borings performed by Miller Pacific Engineering Group in January 1993 for the existing Library, the site contains approximately ten feet of fill overlying Bay Mud. The fill is a Gravelly Clay (CL) to Clayey Gravel (GC). These materials have a low plasticity index and therefore a low expansive potential. The threat of expansive soils on the site is low. Therefore, implementation of the proposed project would not result in any impacts related to substantial risks to life or property due to expansive soil. No significant impacts would occur and no further analysis of this issue is required.

The project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. No septic tanks or alternative wastewater disposal systems are proposed at the site. The proposed project would connect to existing wastewater treatment and disposal facilities. Therefore, implementation of the proposed project would not result in any impacts related to septic tanks or alternative wastewater disposal systems. No significant impacts would occur and no further analysis of this issue is required.

HAZARDS & HAZARDOUS MATERIALS

The project would not create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials. The project would involve the expansion of the existing Library, changes to site parking, and relocation of the existing Zelinsky Park. During construction, a minor amount of hazardous materials (e.g., paints, solvents, etc.) could be used but all contractors are expected to abide by regulations regarding the transport, use, and disposal of such materials. The types of hazardous materials associated with routine, day-to-day operation of the proposed project would include landscaping chemicals that would be used in quantities typical for recreational uses and typical cleaning solvents used for janitorial purposes. Therefore, implementation of the proposed project would not result in any impacts related to the routine transport, use or disposal of hazardous materials. No significant impacts would occur and no further analysis of this issue is required.

The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the

environment. As stated above, the project would involve the expansion of the existing Library, changes to site parking, and relocation of the existing Zelinsky Park and does not propose the routine transport, use, or disposal of substantial quantities of hazardous materials. Therefore, implementation of the proposed project would not have the potential to create upset or accidental release of substantial quantities of hazardous materials. No significant impacts would occur and no further analysis of this issue is required.

The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The project site is located approximately .2 mile from Belvedere Nursery School (located at 15 Cove Road Place) and approximately .3 mile from Reed Elementary School (located at 11999 Tiburon Boulevard). However, as stated above, the project would not involve the routine transport, use, disposal, or accidental release of substantial quantities of hazardous materials. Therefore, implementation of the proposed project would not have the potential to emit substantial quantities of hazardous materials within one-quarter mile of an existing or proposed school. No significant impacts would occur and no further analysis of this issue is required.

*The project would not be located on a site which is included on a list of hazardous materials sites.*¹³ The project is not located on a list of hazardous materials sites. Therefore, implementation of the proposed project would not create a significant hazard to the public or the environment related its location on a hazardous materials site. No significant impacts would occur and no further analysis of this issue is required.

The project is not 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, nor would the project result in a safety hazard for people residing or working in the project area. No public airports or public use airports are located in the Town. The nearest public airport is Oakland International Airport which is approximately 17 miles southwest of the project site at 1 Airport Drive in the City of Oakland.¹⁴ Therefore, implementation of the proposed project would not have the potential to result in an aircraft-related safety hazard for people residing or working in the project area. No significant impacts would occur and no further analysis of this issue is required.

The project is not within the vicinity of a private airstrip, nor would the project result in a safety hazard for people residing or working in the project area. No private airstrips are located in the Town. The nearest private airstrip is San Rafael Airport, located ten miles north of the project site at 397 Smith Ranch Road in the City of San Rafael.¹⁵ Therefore, the project is not located in the vicinity of a private airstrip and implementation of the proposed project would not have the potential to result in an aircraft-

¹³ Department of Toxic Substances Control, EnviroStor, Selection for "94920", website: <http://www.envirostor.dtsc.ca.gov/public/>, accessed July 28, 2009.

¹⁴ Google Earth, accessed July 28, 2009.

¹⁵ Ibid.

related safety hazard for people residing or working in the project area. No significant impacts would occur and no further analysis of this issue is required.

The project would not impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project would not affect an emergency response plan. While the project would expand the existing Library, such development would conform with all applicable local, county, regional, State, and federal regulations pertaining to emergency safety. Therefore, implementation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No significant impacts would occur and no further analysis of this issue is required.

The project would not 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. The California Department of Forestry and Fire Protection has recommended a wildland fire susceptibility map for Marin County. According to this map, the project site is not within a very high fire hazard zone.¹⁶ Railroad Marsh, which has heavy vegetation at the edge of the water, is located just north of the site. However, the potential for wildland fire within this area is not considered significant due to management of the marsh currently undertaken by the Town and the type of vegetation that grows in the area.¹⁷ Therefore, implementation of the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. No significant impacts would occur and no further analysis of this issue is required.

MINERAL RESOURCES

The project would not 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 nor would it 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. The project site is not designated by the State or Tiburon 2020 as an area of mineral resource. Therefore, the proposed project would not 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. Furthermore, as the site is currently developed with a parking area and Zelinsky Park, and there are no adjacent areas that are being mined, the project would not alter its status with respect to the availability of mineral resources. Therefore, implementation of the proposed project would not result in any impacts related to the availability of a known mineral resource or a locally-important mineral resource recover site. No significant impacts would occur and no further analysis of this issue is required.

¹⁶ California Department of Forestry and Fire Protection – Fire and Resource Assessment Program, Very High Fire Hazard Severity Zones in LRA: As Recommended By CAL FIRE for Marin County, CA, October 16, 2008.

¹⁷ Initial Study for the Belvedere-Tiburon Library Proposed Expansion General Plan Amendment and Rezoning, March 2004, at page 36.

POPULATION/HOUSING

The project would not 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). With respect to resulting in direct population growth, the project does not propose the construction of any new housing. Substantial population growth related to employment would be induced because only two new employees would be generated by the proposed project. In addition, it is not likely that construction workers would relocate their place of residence as a consequence of working on the proposed project. With respect to resulting in indirect population growth, vehicular access to the project site would be relocated from Tiburon Boulevard to a driveways on Mar West Street but no road extensions are proposed. In addition, the project site is within the limits of the Town, which is served by the Marin Municipal Water District (MMWD). Utility infrastructure extensions throughout the project site are required to serve the proposed project, and such infrastructure improvements would be limited to the site only. Therefore, implementation of the proposed project would not result in any impacts related to population growth. No significant impacts would occur and no further analysis of this issue is required.

The project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. No housing would be removed or impacted to allow construction of the project. No significant impacts would occur and no further analysis of this issue is required.

The project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No people would be displaced to allow construction of the project. Therefore, implementation of the project would not result in any impacts related to the construction of replacement housing. No significant impacts would occur and no further analysis of this issue is required.

PUBLIC SERVICES

The project would not 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 performances objectives for any of the public services: fire protection, police protection, schools, parks, or other public facilities. No new governmental or service-related facilities would need to be constructed to serve the project. The project is currently adequately served by police and fire services. The proposed expansion of the Library and relocation of Zelinsky Park would not increase capacity to the extent that additional police and fire services would be needed. Furthermore, because the project would not induce population growth, no increased demand on existing schools would occur.

The Tiburon Fire Protection District has reviewed the plans that are available for the project at this time and has recommended components that would be incorporated into the project to comply with the

requirements of the California Fire Code and the Tiburon Fire Protection District. Specifically, the project would incorporate the Tiburon Fire Protection District's requirements including:¹⁸

- An additional fire hydrant to be located on Tiburon Boulevard near the Pedestrian Plaza between Town Hall and the proposed project.
- The proposed new parking lot is required to provide the required minimum fire apparatus access and it is required to provide a minimum 20 feet in unobstructed width throughout the "U" shaped driving portion of the lot. The curve at the rear of the parking lot shall have a minimum 20 foot inside radius.
- Properly illuminated pathways conforming to the requirements for exit egress shall be required from all exits to the public way.

Therefore, implementation of the proposed project would not result in any impacts related to the provision of new or physically altered governmental facilities. No significant impacts would occur and no further analysis of this issue is required.

RECREATION

The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The project does not propose the construction of any new housing and no substantial population growth related to employment would be induced as only two new employees would be generated by the proposed project. The two new employees generated by the proposed project would potentially use Zelinsky Park; however, the addition of two new park uses is not likely to result in substantial physical deterioration. Because the project would not increase the number of residents within the Town and would not significantly increase the usage of Zelinsky Park or other parks within the Town or the region, implementation of the proposed project would not result in any impacts related to the provision of new or physically altered governmental facilities development of the proposed project would not result in substantial physical deterioration of recreational facilities. No significant impacts would occur and no further analysis of this issue is required.

The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Upon implementation of the project, Zelinsky Park would be relocated from its current location in the northern portion of the project site to an area directly behind the Town Hall building and would replace the existing 19 parking spaces currently located behind the building. Physical impacts that could result from the relocation of Zelinsky Park are addressed throughout Section IV of the Draft EIR. No significant impacts would occur and no further analysis of this issue is required.

¹⁸ Ron Barney, Fire Marshal, Tiburon Fire Protection District, written correspondence with Tiburon Planning Department, January 7, 2009.

UTILITIES & SERVICE SYSTEMS

The project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB). The project is not expected to result in significant increase in wastewater demands and would not create any exceedance of wastewater treatment requirements of the RWQCB. No significant impacts would occur and no further analysis of this issue is required.

The project would not 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. The project proposes to expand the existing 10,500 sf Library (11,990 sf including a mechanical mezzanine area) by 18,000 sf to 28,500 sf (29,990 sf including the mechanical mezzanine area) in floor area. Due to the relatively small size of the proposed expansion, no new water or wastewater treatment facilities would be required, nor would any expansions of existing facilities be needed. The existing pressurized wastewater line that crosses the project site would not be impacted because the project does not propose any development over the easement. Furthermore, the proposed project would comply with MMWD Landscape Ordinance 385, which requires the MMWD to review and approve a project's working drawings for planting and irrigation systems prior to providing water service for new landscape areas or improved or modified landscape areas. Implementation of the proposed project would not result in any impacts related to the construction of new water or wastewater treatment facilities or expansion of existing facilities. No significant impacts would occur and no further analysis of this issue is required.

The project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. A connection to the existing storm drainage system would be required for the project. The project would include bioretention areas and the use of permeable pavement. Measures have been incorporated into the project that will require that the final drainage map for the project shall be reviewed by the Town engineer to verify that where the project has increased the drainage area to any individual storm drain, that drain has sufficient capacity to receive the estimated increase in flows without flooding. The measures further specify that if individual storm drain capacity is not sufficient, potential flow to that storm drain shall be reduced to below capacity by increasing pervious surfaces, incorporating swales or other means of detention/retention, or rerouting flows to storm drains that have sufficient capacity. Therefore, no significant environmental impacts are anticipated because the Town would ensure that the system would be adequate to handle runoff from the site. No significant impacts would occur and no further analysis of this issue is required.

The project would not have sufficient water supplies from existing entitlements and resources, so new or expanded entitlements are needed. The MMWD, via Service No. 60960, provides water to APN 058-171-94 for the existing Library.¹⁹ The proposed project would not impair MMWD's ability to continue service

¹⁹ *Joseph Eischens, Engineering Technician, Marin Municipal Water District, written correspondence with Tiburon Planning Department, December 22, 2008.*

to this property. However, MMWD records indicate the property had an annual consumption rate of 1.09 acre-feet in 2008,²⁰ which is above its annual water entitlement of 0.97 acre-feet. The purchase of an additional water entitlement will be required to meet the demand of the proposed project.²¹ Therefore, the proposed project would not have sufficient water supplies from existing entitlements. The MMWD, via Service No. 61737, provides water to APN 058-171-62 for landscape irrigation for the existing Zelinsky Park. The proposed project would not impair MMWD's ability to continue service to this property. UTIL-1 provides instructions for the acquisition of an additional water entitlement. With implementation of this measure into the project conditions of approval, no significant impacts would occur and no further analysis of this issue is required.

UTIL-1 To secure an additional water entitlement, the Town shall complete a Water Service Application and pay any required fees or the Town shall transfer an unused entitlement from another site owned by the Town.²²

The project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Sanitary District No.5 of Marin County operates a Treatment Facility located at 2001 Paradise Drive in the Town. The Treatment Facility has the capacity for treating any additional flows generated by the proposed project.²³ Along Tiburon Boulevard, Sanitary District No.5 has an eight-inch gravity sewer line which can handle the additional flows which the library is currently connected to. No significant impacts would occur and no further analysis of this issue is required.

The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. The Mill Valley Refuse Company provides solid waste service for the existing Library. The Redwood Landfill located in Novato has a remaining capacity of 12,900,000 cubic yards and would have adequate capacity to serve the project.²⁴ No significant amount of solid waste is expected to be generated by the construction and operation of the proposed project and the Library would continue to participate in local recycling efforts. No significant impacts would occur and no further analysis of this issue is required.

²⁰ Dan Anderson, Environmental Services Coordinator, Marin Municipal Water District, electronic mail correspondence with CAJA staff, June 22, 2009.

²¹ Joseph Eischens, Engineering Technician, Marin Municipal Water District, written correspondence with Tiburon Planning Department, December 22, 2008.

²² Dan Anderson, Environmental Services Coordinator, Marin Municipal Water District, electronic mail correspondence with CAJA staff, June 22, 2009. The MMWD recommends securing at least an additional entitlement of 0.12 acre-feet to match the 2008 consumption.

²³ Robert Lynch, District Manager, Sanitary District No. 5, response to request for service information from CAJA staff, May 20, 2009.

²⁴ California Integrated Waste Management Board, Facility/Site Summary Details: Redwood Sanitary Landfill (21-AA-0001), website: <http://www.ciwmb.ca.gov/SWIS/21-AA-0001/Detail/>, accessed August 18, 2009.

The project would comply with federal, state, and local statutes and regulations related to solid waste. As stated above, no significant amount of solid waste is expected to be generated by the proposed project and the Library would continue to participate in recycling efforts. No significant impacts would occur and no further analysis of this issue is required.

IV. ENVIRONMENTAL IMPACT ANALYSIS

B. AESTHETICS

INTRODUCTION

This section of the Draft EIR describes existing aesthetic and visual resources on the project site and in the surrounding area. It also evaluates the potential for aesthetic and visual impacts associated with implementation of the proposed project. A regulatory framework is provided in this section describing applicable agencies and regulations related to the proposed project.

Preparation of this section used information from various sources including a site visit, site photography and visual simulations, and architectural renderings.

ENVIRONMENTAL SETTING

Regional Visual Character

The Town of Tiburon is located on the Tiburon Peninsula, surrounded on three sides by the San Francisco Bay, Raccoon Straits, and Richardson Bay. From the San Francisco Bay, the Tiburon Peninsula rises steeply to the Tiburon Ridge, which extends from Ring Mountain (elevation 602 feet) at the western edge of the City through Mount Tiburon (elevation 748 feet) in the eastern part of the Tiburon Peninsula. Angel Island, a State Park located within the Town limits, rises from San Francisco Bay to a height of 788 feet at Mount Livermore. The southwest facing side of the Tiburon Peninsula, overlooking Richardson Bay, consists primarily of open spaces and sloping grasslands. The north-facing side, overlooking San Francisco Bay and San Pablo Bay is sparsely developed and steep with dense tree cover over much of the area. The central spine of the Tiburon Ridge is an important feature that defines the geographic context of the Town.

Local Visual Character

The project site is located in the “Upper Tiburon Boulevard” area as described in the General Plan Downtown Element. Upper Tiburon Boulevard is the principal vehicular entrance to Downtown Tiburon. Land uses along Upper Tiburon Boulevard are primarily commercial and civic and include an office complex, the Tiburon Town Hall/Belvedere-Tiburon Public Library/Zelinsky Park/Railroad Marsh complex; the Boardwalk shopping center; a former grocery store (now vacant); two banks; a delicatessen; and surface parking lots. All of the commercial buildings in the Upper Tiburon Boulevard area (except for the two-story Belvedere-Tiburon Office Park) are single story. Tiburon Town Hall is a partial two-story structure, and the Library, while single-story in function, has the height of a two-story structure. According to the General Plan, Upper Tiburon Boulevard is considered underdeveloped.

The character of the project area is influenced by rolling hills, open space, and commercial, office, and residential land uses. Commercial and residential uses are present along the south side of Tiburon Boulevard. Additional commercial uses are present east of the project site. Multi-family residential uses

and an office complex are present to the north and west of the project site. The Railroad Marsh, which is designated as an Open Space area, is located northeast of the project site.

On-Site Visual Character

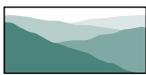
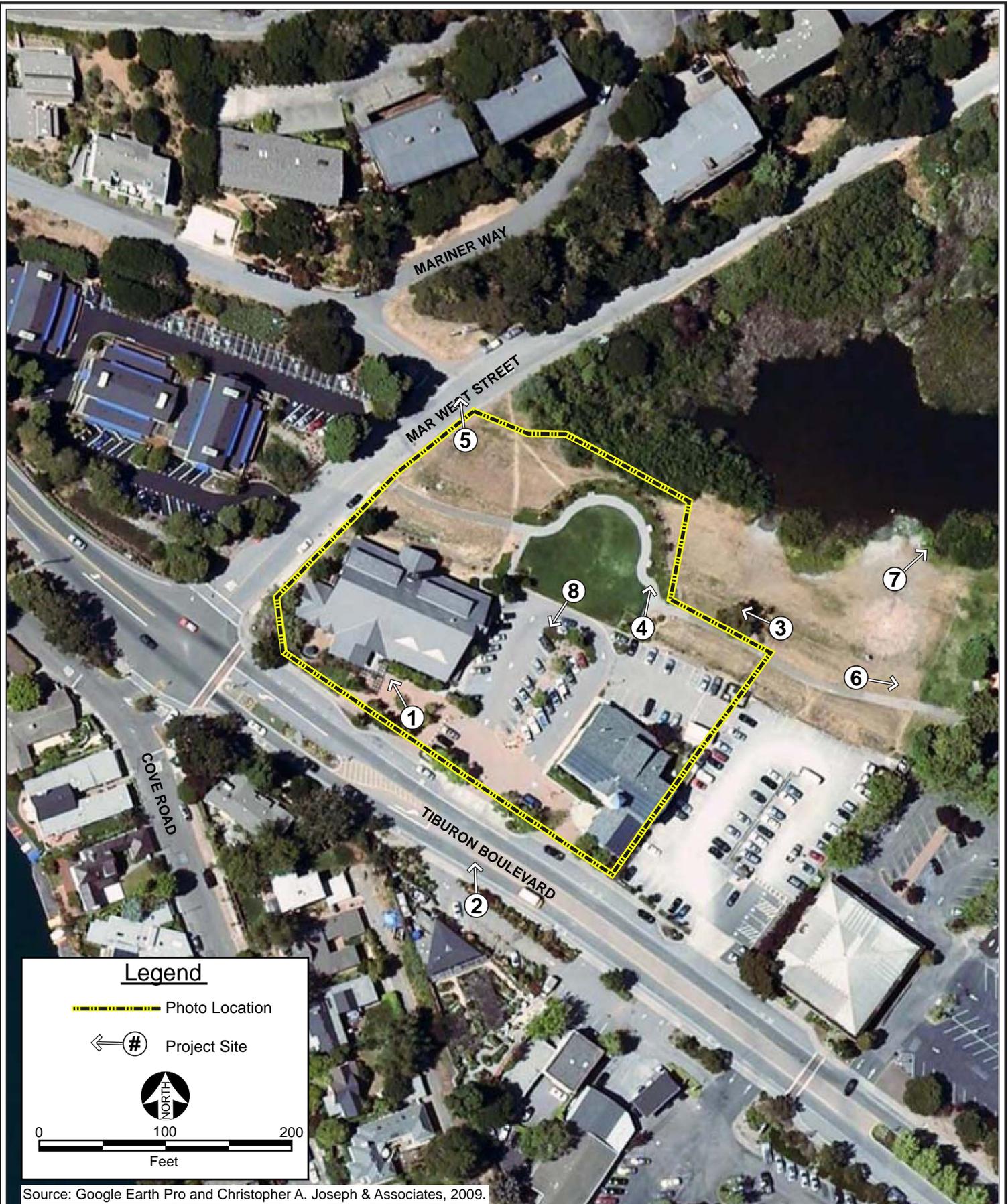
Figure IV.B-1 shows the location of photos of various areas of the project site and views from the project site. As shown in Figure IV.B-2, the project site is currently developed with the Belvedere-Tiburon Library and Town Hall and associated parking areas. The existing Library building was completed in 1997 in the Craftsman style with cedar shingle siding, painted window frames, painted wood trim, and simulated slate roofing. The entry way to the site is faced with interlocking pavers. As shown in View 1, the paved entry area extends to the existing Library entrance and includes planters landscaped with native plants. As shown in View 2, the existing Library is separated from the Town Hall, by a landscaped asphalt parking area. The Tiburon Ridge is visible from the center of the project site and Tiburon Boulevard. Additionally, portions of open space areas on the project site, including Zelinsky Park and the vegetation associated with Railroad Marsh, are visible from Tiburon Boulevard and the parking area.

Zelinsky Park (see Figure IV.B-3) includes an irrigated turf area, paved pathway, trees and landscaping shrubs, benches, and a commemorative photo display dedicated to the Zelinsky family. Due to the location of this part of the project site on the larger civic center complex, closer public views of the back of the project site are primarily available to pedestrians and bicyclists using the paved path that crosses the site and to motorists at the intersection of Mar West Street and Mariner Way. Willows and other vegetation associated with the nearby Railroad Marsh are visible on the northern edge of the project site. Figure IV.B-4 (View 5) shows views from the paved path looking toward the Point Tiburon Marsh Condominiums and the hill rising above Mar West Street and views of residential units to the east on Marsh Road (View 6). Vegetation at the site includes lawn, native grasses, and some introduced trees associated with the landscaping of Zelinsky Park and residential uses.

Scenic Resources

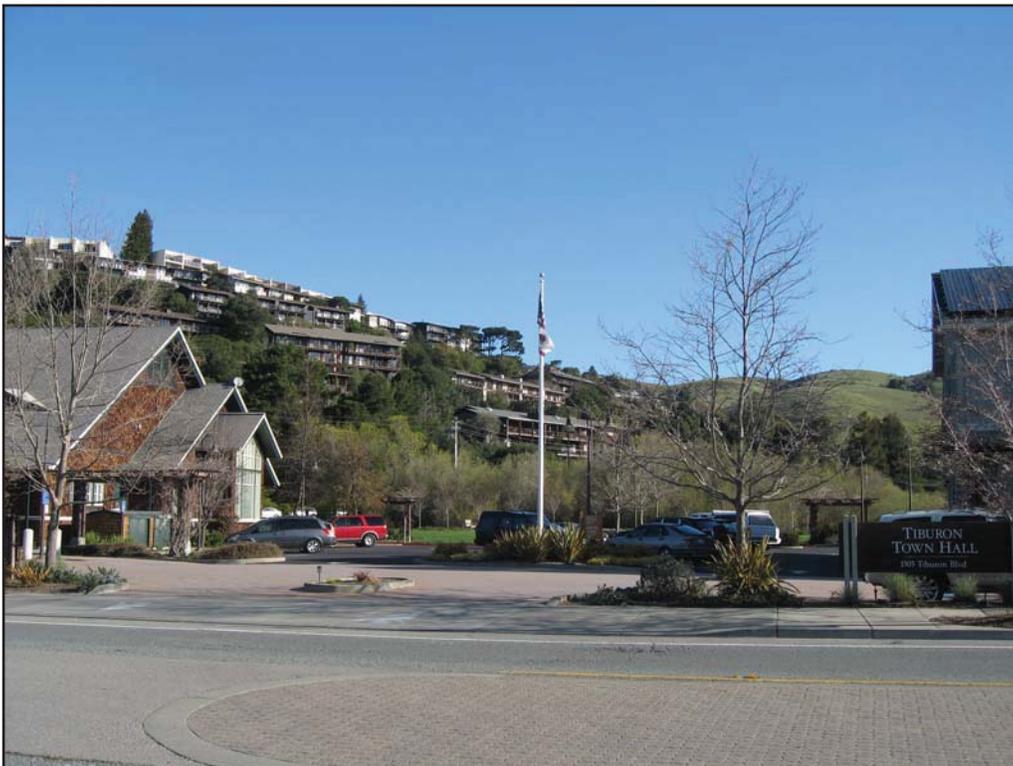
The Railroad Marsh area immediately north of the project is designated in the Tiburon General Plan (Tiburon 2020) as Public Open Space. Besides the water, ridgelines are described in Tiburon 2020 as the most visually defining open space attribute and greatest opportunity for community scenic value in the Tiburon Planning Area. Additionally, Tiburon 2020 contains Ridgeline policies that establish that ridgelines have the highest value to the community as open space.

The Open Space and Conservation Element specifically contains View policies that call for the protection and preservation of view corridors and open space views from key roadways, including Tiburon Boulevard, Trestle Glen Boulevard, and Paradise Drive. The project site is not located on a significant ridgeline or adjacent to a significant ridgeline as designated in the General Plan. However, views of the Tiburon Ridgeline are available from the project site and surrounding areas, including Tiburon Boulevard.



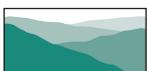


View 1: Looking north towards the Belvedere-Tiburon Library.



View 2: Looking northeast across Tiburon Boulevard towards the Belvedere-Tiburon Library and Tiburon Town Hall site.

Source: Christopher A. Joseph & Associates, 2009.



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Figure IV.B-2
Belvedere-Tiburon Library and Town Hall Site



View 3: Looking north across Zelinsky Park.



View 4: Looking northeast across Zelinsky Park.

Source: Christopher A. Joseph & Associates, 2009.



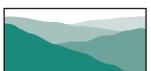


View 5: Looking northwest from Zelinsky Park towards residential uses on Mariner Way.



View 6: Looking east from Zelinsky Park towards residential uses adjacent to the park.

Source: Christopher A. Joseph & Associates, 2009.



Views from the Project Site

Views from the project site include views to the north of Tiburon Ridge and to the south of Belvedere (see Figure IV.B-5). As shown in View 7, views to the north include Railroad Marsh in the mid-ground and Tiburon Ridge in the background. Railroad Marsh is surrounded by riparian vegetation and trees. Tiburon Ridge is vegetated predominately with grass and some low shrubs. From this viewpoint, St. Hilary's Church can be seen midway up Tiburon Ridge. Residential development surrounded by mature trees and landscaping is visible surrounding St. Hilary's Church, both below and above it. As shown in View 8, views of the south side of Tiburon Boulevard and the Belvedere peninsula are also available from the project site. The Belvedere peninsula is hilly and developed with hillside homes surrounded by mature trees.

Light and Glare

Glare impacts tends to occur when a person's eyes have difficulty in adjusting to bright lights with a darker background. Glare can occur from a direct light source, such as oncoming headlights in the night; or indirectly from reflected light sources, such as light shining off water or buildings, depending on the angle of the sun. The project site is currently developed with buildings and parking areas. Therefore, the site is lit in the evening by low level lights from the Town Hall, existing Library, and the surface parking lot. Sources of light and glare from the existing library and Town Hall complex affect the project site due to their close proximity. Headlights or windshields of vehicles and streetlights along Mar West Boulevard are also a source of light and glare.

REGULATORY SETTING

Federal

There are no federal regulations related to aesthetics that would apply to the proposed project.

State

Caltrans Scenic Highway Program

California's Scenic Highway Program is administered by the California Department of Transportation (Caltrans). The Scenic Highway Program was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated.

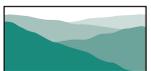


View 7: Looking towards ridgelines in Tiburon.



View 8: Looking across the project site from Zelinski Park.

Source: Christopher A. Joseph & Associates, 2009.



The project is located along Tiburon Boulevard, which is State Route 131. State Route 131 is not an eligible or officially designated State Scenic Highway. The section of U.S. Highway 101 that is an Officially Designated State Scenic Highway under the State Scenic Highway program is not in the vicinity of the project site.¹

Regional/Local

Town of Tiburon General Plan (Tiburon 2020)

Tiburon 2020 sets forth policy guidelines for decision making on issues related to development and conservation in the Town of Tiburon. Policies related to aesthetics are contained in the Open Space and Conservation Element of Tiburon 2020. Additionally, the Downtown Element contains policies related to aesthetics that are specific to the Downtown area. As the project site is located within the area covered under the Downtown Element, these policies apply as well. Section IV.F (Land Use and Planning) assesses the consistency of the proposed project with the relevant goals and policies of Tiburon 2020.

Downtown Tiburon Design Handbook

The Downtown Tiburon Design Handbook is intended to serve as a guide for the retention, revitalization, and new construction of buildings, storefronts, and streetscapes in Downtown Tiburon. The Handbook consists of goals, basic design concepts, and design guidelines. While the guidelines address many specific design elements, they differ from absolute standards found in ordinances, and are non-prescriptive in nature. Their major objective is to promote the development of recognizable building designs and site furnishings consistent through the Downtown and responsive to Tiburon's historic legacy.

ENVIRONMENTAL IMPACTS

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

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

¹ California Department of Transportation, *Scenic Highway Program, Eligible and Designated Routes*, website: <http://www.dot.ca.gov/hq/LandArch/scenic/cahisys4.htm>, April 24, 2009.

Project Impacts

Impact AES-1 Implementation of the proposed project would have a substantial adverse effect on a scenic vista. (SU)

The project site is not within an area designated as a scenic vista by Tiburon 2020. However, Tiburon 2020 does identify the Tiburon Ridge as a Significant Ridgeline. The southwest facing side of the Tiburon Peninsula, overlooking Richardson Bay and the project site, consists primarily of open spaces and sloping grasslands. According to Tiburon 2020, the central spine of the Tiburon Ridge is an important feature that defines the geographic context of the Town. The Tiburon Ridge is visible from many areas of the project site, including parking areas, Zelinsky Park, and open space areas near Zelinsky Park. Views of Tiburon Ridge are also visible through the project site from Tiburon Boulevard looking north.

Tiburon 2020 contains Ridgeline policies that establish that ridgelines have the highest value to the community as open space. Additionally, the Open Space and Conservation Element specifically contains View policies that call for the protection and preservation of view corridors and open space views from key roadways, including Tiburon Boulevard, Trestle Glen Boulevard, and Paradise Drive.

Visual simulations of the Library addition were prepared for this analysis to simulate view blockage.² Figure IV.B-6 shows the existing and proposed views from Tiburon Boulevard. As shown in Figure IV.B-6 (View 1, Existing), currently views of the Tiburon Ridge and open space areas are available from Tiburon Boulevard. The extent of these views varies seasonally, with larger views available in the winter when the deciduous trees lining Tiburon Boulevard drop their leaves. Views of Tiburon Ridge are also available in the parking areas on the site, from Zelinsky Park, and open space areas near Zelinsky Park.

As shown in Figure IV.B-6 (View 1, Proposed), construction of the Library addition would substantially limit views of Tiburon Ridge from Tiburon Boulevard. Although the Library addition is similar in height to the existing Library, the extension of the Library roofline across the area currently occupied by the open area of the parking lot would limit the views of Tiburon Ridge available from Tiburon Boulevard and other public areas such as the shared Town Hall/Library parking lot. Views of Tiburon Ridge from Zelinsky Park would not be affected as the Library addition would be to the south of the viewer.

The Open Space and Conservation Element specifically contains View policies that call for the protection and preservation of view corridors and open space views from key roadways, including Tiburon Boulevard. Construction of the project, specifically the Library addition, would substantially limit views of the Tiburon Ridge from public viewing places including Tiburon Boulevard. This impact would be a substantial, adverse impact to a scenic vista.

² *The design of the Library is conceptual at this point and design-level details are not available. These visual simulations were prepared using the most up to date conceptual design images provided by the Library and do not represent the finished design of the Library. Therefore, these simulations were prepared to show view blockage, the Library footprint, and massing of the proposed Library addition only and should not be referenced as indicators of design details for the project.*



View 1, Existing: View from Tiburon Boulevard.



View 1, Proposed: View from Tiburon Boulevard.

Note: Simulated views display preliminary design study, final project may be different.

Source: Christopher A. Joseph & Associates, 2009.



As the only way to avoid this impact would be to either decrease the height of the addition or to not construct the addition, this impact would be *significant and unavoidable*.³

Impact AES-2 Implementation of the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. (NI)

The project site is located along Tiburon Boulevard, State Route 131. However, State Route 131 is not an eligible or officially designated State Scenic Highway and there would be *no impact*.

Impact AES-3 Implementation of the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. (LTS)

The project site is currently developed with the existing Belvedere-Tiburon Library building, associated Belvedere-Tiburon Library and Town Hall parking areas, Zelinsky Park, and open space areas. The existing Library building was completed in 1997 in the Craftsman style with cedar shingle siding, painted window frames, painted wood trim, and simulated slate roofing. The existing building is approximately 10,540 square feet (sf) on the first level with an approximately 1,450 square-foot mechanical mezzanine area. The shared parking area is accessed from Tiburon Boulevard. The parking area is landscaped and includes planter median and flagpole between the two rows of parking spaces. Zelinsky Park, portions of which were installed and improved in 2001, includes an irrigated turf area, paved pathway, trees and groundcover, benches, and a commemorative photo display dedicated to the Zelinsky family. Areas of the project site on either side of Zelinsky Park are undeveloped, with the exception of a paved path, and used as an informal open space by area residents. Railroad Marsh is adjacent to the northern edge of the project site.

The proposed project would expand the existing Belvedere-Tiburon Public Library through the construction of a two-story addition. The existing 10,500 sf Library (11,990 sf including a mechanical mezzanine area) would be expanded by 18,000 sf to 28,500 sf (29,990 sf including the mechanical mezzanine area) in floor area. The Library addition would be the same height as the existing Library, creating a continuous roofline with no increase in overall building height. The second floor of the addition would be accommodated through the use of a dormered roof. The architectural style and exterior materials of the addition would be similar to and compatible with the existing Library, including the roofing materials, to create an additional that matches the style and materials of the existing Library.

The proposed site plan is shown in Figure IV.B-7, parking that is currently located between the Library and Town Hall would be relocated to the rear of the Library. The new 52-space parking lot would be accessed from Mar West Street. The existing Tiburon Boulevard access would be closed and landscaping would be installed along Tiburon Boulevard consistent with the existing landscaping. The parking lot

³ *The previous environmental documentation prepared for the original Library and Town Hall buildings did not conclude that those projects would create a significant unavoidable impact due to the fact that a different General Plan was in place at the time of the environmental review.*

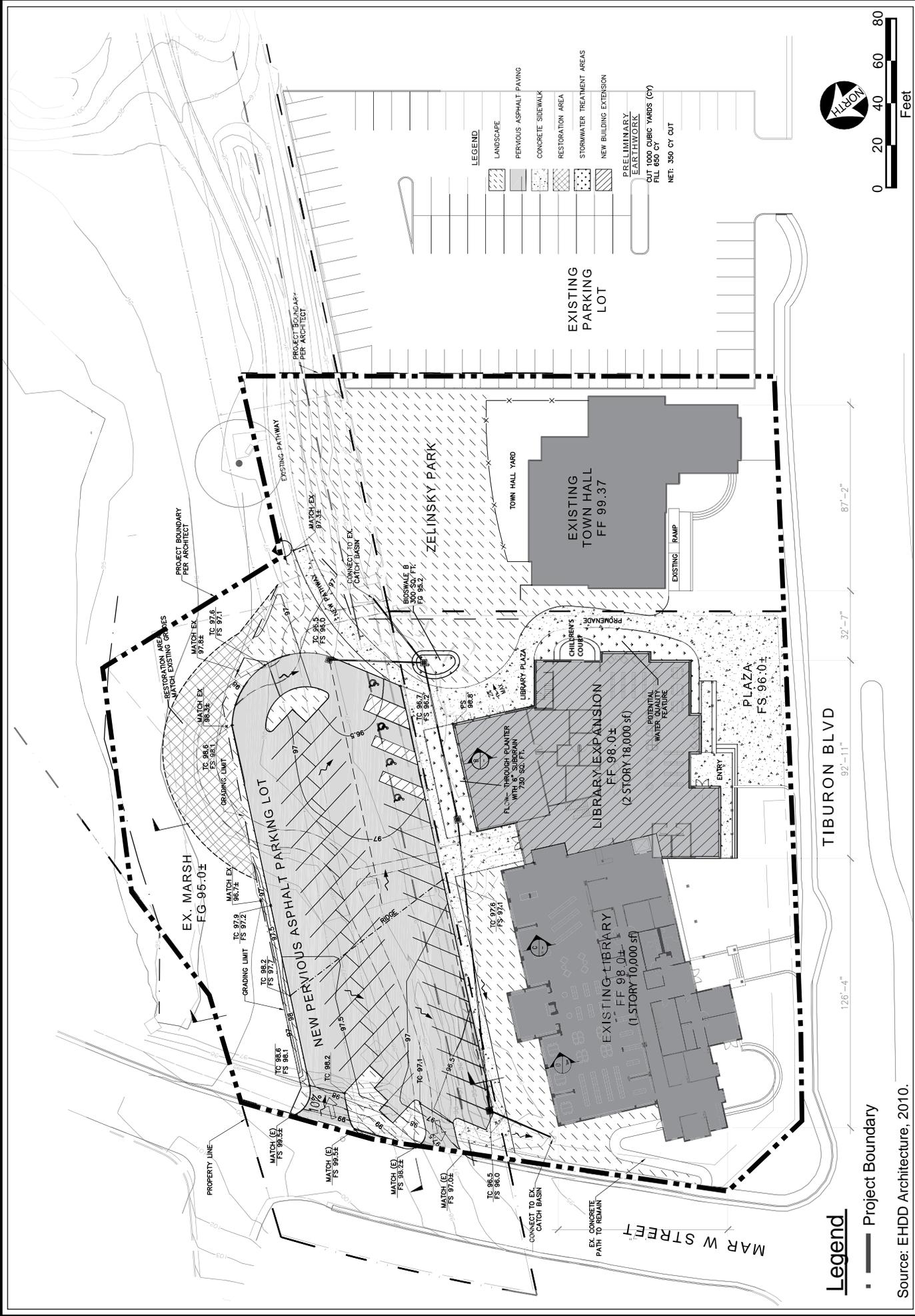
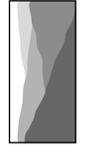


Figure IV.B-7
Belvedere-Tiburon Library Proposed Site Plan

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Legend

- Project Boundary

Source: EHDD Architecture, 2010.



would be surfaced with pervious asphalt and landscaped with trees and plants. Landscaping would provide some screening of the parking lot from the Library, Zelinsky Park, and surrounding nearby land uses. The project would also include lighting and landscaping improvements, including the installation of a Town Plaza along Tiburon Boulevard between the Library and Town Hall and Zelinsky Promenade/Garden Plaza extending from Tiburon Boulevard to Zelinsky Park. Outside Library amenities would include a Story Time Area and Staff Patio. Site furnishing, lighting, and landscaping would be consistent with the policies and specifications of the Downtown Tiburon Design Handbook.

Visual simulations of the Library addition were prepared for this analysis to show size and massing of the Library addition.⁴ Figure IV.B-8 shows the existing and proposed views of the Library addition from the paved pathway east of Zelinsky Park and west of the Railroad Marsh condominiums. As shown in View 2, Existing, the area where the Library addition would be constructed is an area currently occupied by the shared Town Hall/Library parking lot and the proposed parking lot would be located in an area that is currently open space.

As shown in Figure IV.B-8 (View 2, Proposed), the addition would be similar in massing to the existing Library and Town Hall. Construction materials proposed for the Library addition would match the existing Library; e.g., cedar shingle siding, painted window frames, painted wood trim, and simulated slate roofing. Therefore, the addition would be consistent with the existing Library and Town Hall buildings on the site.

Figure IV.B-9 shows the existing and proposed views of the Library addition from the intersection of Mar West Street and Mariner Way. As shown in Figure IV.B-9, the height and scale of the addition would be consistent with the existing Library. Again, construction materials would match the existing Library building, creating a seamless addition to the Library. Therefore, the Library addition would be compatible in scale, massing, and design features/materials with the existing Library and would not degrade the visual quality of the site.

The project site is currently developed with civic and open space uses. These uses would continue and the project would not introduce new types of or incompatible uses on the site. Closure of the Tiburon Boulevard driveway, relocation of the parking lot, and construction of the Town Plaza and Zelinsky Promenade/Garden Plaza would improve the visual quality of the site viewed from Tiburon Boulevard by replacing a driveway and parking lot with the Town Plaza and Zelinsky Promenade/Garden Plaza. Open space areas behind the Library would be developed with a parking lot; however, the parking lot would include landscaping and would be landscaped near Mar West Street, between the Library and parking lot.

⁴ *The design of the Library is conceptual at this point and design-level details are not available. These visual simulations were prepared using the most up to date conceptual design images provided by the Library and do not represent the finished design of the Library. Additionally, these simulations do not include landscaping and park details due to lack of design-level information on their exact location. Therefore, these simulations were prepared to show view blockage, the footprint, and massing of the proposed Library addition only and should not be referenced as indicators of design details for the project.*



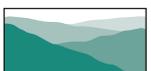
View 2, Existing: View from Railroad Marsh Area.



View 2, Proposed: View from Railroad Marsh Area.

Note: Simulated views display preliminary design study, final project may be different.

Source: Christopher A. Joseph & Associates, 2009.





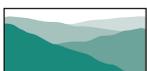
View 3, Existing: View from Mar West Street and Mariner Way.



View 3, Existing: View from Mar West Street and Mariner Way.

Note: Simulated views display preliminary design study, final project may be different.

Source: Christopher A. Joseph & Associates, 2009.



This development on the site would be consistent and compatible with the existing development and the Downtown Tiburon Design Handbook and would not substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, this impact would be *less than significant* and no mitigation measures are required.

Impact AES-4 Implementation of the proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. (LTS)

The types of lighting that would be incorporated into the design of the project would be similar to the existing lighting on the site. Due to the increase in building size and addition of parking to the project site, additional sources of lighting and reflective surfaces would be introduced. The proposed lighting would ensure that on-site lighting would be directed toward the interior of the project site boundary, away from neighboring land uses. The lighting on the site would be consistent with lighting of the other commercial and civic uses in the area and the proposed project would not include light sources such as illuminated billboards or light fixtures associated with outdoor sporting events. Likewise, the exterior surfaces of the proposed structures would be constructed with typical surface materials and coatings, similar to those found on the existing library. The nearest light-sensitive land uses are the residential uses located over 100 yards away across Mar West Street. These residential uses are not immediately adjacent to the project site; thus light and glare spillover from the project site would not occur at these locations. Overall, the proposed project would not result in a substantial increase in light or glare which could adversely affect day or nighttime views in the project area and this impact would be *less than significant* and no mitigation measures are required.

CUMULATIVE IMPACTS

The area considered for the cumulative analysis of aesthetics impacts includes the Town of Tiburon. Tiburon is a small community with a village-like Downtown area. Tiburon has a number of scenic resources and scenic vistas, including views of areas outside of the Town such as San Francisco, Golden Gate Bridge, East Bay, and San Francisco Bay. Scenic vistas of features within the Town include Ring Mountain Open Space Preserve, the Tiburon Ridge, and Angel Island. The Town of Tiburon Zoning Ordinance includes extensive development review policies and procedures to limit the impact of new development on scenic vistas and Tiburon 2020 includes policies to reduce impact on scenic vistas. However, as analyzed in the Tiburon 2020 Draft EIR, these policies would not serve to fully mitigate potential project-specific impacts from new development within the Town, which found impacts to scenic vistas as significant and unavoidable.

Construction of the project, specifically the Library addition, would substantially limit views of the Tiburon Ridge from public viewing places including Tiburon Boulevard. As the only way to avoid this impact would be to either decrease the height of the addition or not construct the addition, this impact would be a substantial, adverse impact to a scenic vista. Given that impacts to scenic vistas from cumulative development have been found to be significant and unavoidable in the Tiburon 2020 Draft

EIR, this impact would contribute to this impact further and would be *cumulatively significant and unavoidable*.

IV. ENVIRONMENTAL IMPACT ANALYSIS

C. AIR QUALITY

INTRODUCTION

This section evaluates the potential impacts on air quality resulting from implementation of the proposed project. This includes the potential for the proposed project to conflict with or obstruct implementation of the applicable air quality plan, to violate an air quality standard or contribute substantially to an existing or projected air quality violation, to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors affecting a substantial number of people.

This section has been prepared using analytical methodologies and evaluation criteria recommended by the Bay Area Air Quality Management District (BAAQMD) in the document entitled, “*BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans*”, published in December of 1999, as well as the Town of Tiburon’s General Plan (Tiburon 2020). As recommended, all three main categories of air pollutants are assessed; criteria air pollutants, toxic air contaminants, and greenhouse gases.

These sources include including the Town of Tiburon General Plan and the Belvedere-Tiburon Library Expansion Project Traffic Impact Analysis prepared by DKS Associates in 2010.

ENVIRONMENTAL SETTING

The project site is located in the Town of Tiburon, which is an incorporated town in Marin County, California. The Town of Tiburon is located within the nine-county San Francisco Bay Area Air Basin (Basin), which encompasses seven counties (Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara and Napa) and portions of two others (southwestern Solano and southern Sonoma). The air quality within the Basin is influenced by a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, and industry.

Air Pollutants

Air pollutant emissions within the Basin are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples are boilers or combustion equipment that produces electricity or generates heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products such as barbeque lighter fluid and hair spray. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, racecars, and self-propelled construction equipment. Mobile sources account for the majority of the air pollutant

emissions within the San Francisco Air Basin (Basin). Air pollutants can also be generated by the natural environment such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, that have been adopted for them. The federal and state standards have been set at levels considered safe to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The criteria air pollutants for which national and state standards have been promulgated and which are most relevant to air quality planning and regulation in the Bay Area include ozone, carbon monoxide (CO), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), sulfur dioxide (SO₂), and lead. A description of each of these criteria pollutants as well as their potential health impacts is presented below.

- *O*₃ is a highly reactive and unstable gas that is formed when reactive organic gases (ROGs) and nitrogen oxides (NO_x), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in areas of high ozone can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels may lead to increases in school absences, daily hospital admission rates, as well as mortality rates.
- *CO* is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport. Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes. Exposure to low levels of CO can cause fatigue, headaches, nausea, and dizziness, as well as aggravating cardiovascular disease. High concentrations of CO may be lethal with death resulting from asphyxiation.

- PM_{10} and $PM_{2.5}$ consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities. A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and the world. The elderly, people with pre-existing respiratory or cardiovascular disease and children are more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.
- NO_2 is a nitrogen oxide compound that is produced from the combustion of fossil fuels, such as in internal combustion engines (both gasoline and diesel powered) and power plant facilities. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. Commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitors. Short term exposure to NO_2 may lead to an increased resistance to air flow and airway contraction. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO_2 .
- SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere mainly as a result of burning high sulfur-content fuel oils and coal, as well as from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_x). Acute exposure to SO_2 can cause an increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties in asthmatics. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2 . Animal Very high levels of exposure to SO_2 can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.
- Pb occurs in the atmosphere as particulate matter. Present sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and the use of secondary Pb smelters. The combustion of leaded gasoline was the primary source of airborne Pb in the Basin until the use of leaded gasoline was no longer permitted for on-road motor vehicles. Pb is also present in many soils and can get re-suspended in the air.

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system.

In addition to the criteria pollutants described above, toxic air contaminants (TACs) and greenhouse gases (GHGs) are also of concern within the Bay Area. The characteristics of TACs and GHGs are briefly described below.

- *TACs* refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. They are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). In urban areas, TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources such as gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than “criteria” pollutants in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics and their effects on health tend to be felt on a local scale rather than on a regional basis.

TACs are known to cause or contribute to cancer or non-cancer health effects such as birth defects, genetic damage, and other adverse health effects. Acute health effects from TACs are attributable to sudden exposure to high quantities of air toxics. These effects include nausea, skin irritation, respiratory illness, and, in some cases, death. Chronic health effects from TACs result from low-dose, long-term exposure from routine releases of air toxics. The effect of major concern for this type of exposure is cancer, which requires a period of 10-30 years after exposure to develop.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the California Air Resources Board (ARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the ARB, and are listed as carcinogens either under the state’s Proposition 65 or under the federal Hazardous Air Pollutants programs. The United States Environmental Protection Agency (U.S. EPA) has adopted Ultra Low Sulfur Diesel (ULSD) fuel standards that went into effect in June 2006 in an effort to reduce diesel particulate matter substantially. As of June 1, 2006, refiners and importers nationwide have been required by the U.S. EPA to ensure that at least 80 percent of the volume of the highway diesel fuel they produce or import would be ULSD-compliant. By December 10, 2010, only ULSD fuel will be available for highway use nationwide. In California, which was an early adopter of ULSD fuel and engine technologies, 100 percent of the diesel fuel sold – downstream from refineries, up to and including fuel terminals that store diesel fuel – was ULSD fuel since July 15, 2006. Since September 1, 2006, all diesel fuel offered for sale at retail outlets in California have been ULSD fuel.

- *GHGs* refer to a group of compounds that are believed to affect global climate conditions. Simply put, the greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse

with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. This phenomenon results in the warming of the Earth's atmosphere. However, excessive concentrations of GHGs in the atmosphere can result in increased global mean temperatures, with associated adverse climatic and ecological consequences. Global climate change attributable to anthropogenic (human) emissions of GHGs is one of the most important and widely debated scientific, economic, and political issues in the United States. Since the industrial revolution, there has been a significant increase in the amount of greenhouse gases emitted into the atmosphere. Research has shown that this exponential increase in greenhouse gas emissions from human activities has contributed to rapid Global Climate Change. Global Climate Change, also known as global warming, is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. Although there is disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, most agree that there is a direct link between increased emissions of greenhouse gases and global temperature variations.

GHGs include carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). A general description of each of these GHGs is provided in Table IV.C-1, Description of Identified Greenhouse Gases. CO₂ is the most abundant GHG. Other GHGs are less abundant, but have higher global warming potential than CO₂. Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO₂, denoted as CO₂e.

Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions. There appears to be a close relationship between the concentration of greenhouse gases in the atmosphere and global temperatures. A number of scientists believe that the amount of greenhouse gas emissions in the atmosphere has increased at a rapid rate due to the use of machines powered by fossil fuels and that these gases are increasing global temperatures.¹ If not abated, the warming increase could reduce water supply, increase erosion of coastlines, increase seawater intrusion, increase power demand, and worsen air quality.²

¹ Intergovernmental Panel on Climate Change. *Climate Change 2007 – The Physical Science Basis, Summary for Policymakers*, 2007.

² California Environmental Protection Agency, *Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006.

**Table IV.C-1
Description of Identified Greenhouse Gases**

Greenhouse Gas	General Description
Carbon Dioxide (CO₂)	An odorless, colorless GHG, which has both natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of carbon dioxide are from burning coal, oil, natural gas, and wood.
Methane	A flammable gas and is the main component of natural gas. When one molecule of methane is burned in the presence of oxygen, one molecule of carbon dioxide and two molecules of water are released. There are no ill health effects from methane. A natural source of methane is from the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
Nitrous Oxide (N₂O)	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant.
Hydrofluorocarbons (HFCs)	HFCs are synthetic man-made chemicals that are used as a substitute for chlorofluorocarbons (CFCs) for automobile air conditioners and refrigerants. CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. As CFCs destroy stratospheric ozone, their production was stopped as required by the Montreal Protocol in 1987.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above the earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.
Sulfur Hexafluoride (SF₆)	An inorganic, odorless, colorless, non-toxic, and nonflammable gas. SF ₆ is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
<i>Source: Association of Environment Professionals, Alternative Approaches to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents, Final, June 29, 2007.</i>	

State standards have been promulgated for other air pollutants, including SO₄, hydrogen sulfide, and visibility reducing particles. The state also recognizes vinyl chloride as a TAC with an undetermined threshold level of exposure for adverse health effects. Vinyl chloride and hydrogen sulfide emissions are generally generated from mining, milling, refining, smelting, landfills, sewer plants, cement manufacturing, or the manufacturing or decomposition of organic matter. The state standards for sulfate and visibility reducing particles are not exceeded anywhere in the Basin.

Existing Regional Air Quality

Measurements of ambient concentrations of the criteria pollutants are used by the U.S. EPA and the ARB to assess and classify the air quality of each air basin, county, or, in some cases, a specific developed area. The classification is determined by comparing actual monitoring data with federal and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in “attainment.” If the pollutant exceeds the standard, the area is classified as a “nonattainment” area. If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated “unclassified.”

The U.S. EPA and the ARB use different standards for determining whether the Basin is in attainment. National and state standards are summarized in Table IV.C-2. The attainment status for the Basin regarding the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) is shown in Table IV.C-3.

Table IV.C-2
Ambient Air Quality Standards

Air Pollutant	Averaging Time	State Standard	National Standard
Ozone (O ₃)	1 Hour	0.09 ppm	--
	8 Hour	0.07 ppm	0.075 ppm
Carbon Monoxide (CO)	1 Hour	20 ppm	35 ppm
	8 Hour	9.0 ppm	9.0 ppm
Nitrogen Dioxide (NO ₂)	1 Hour	0.18 ppm	0.100 ppm
	Annual	0.030 ppm	0.053 ppm
Sulfur Dioxide (SO ₂)	1 Hour	0.25 ppm	--
	24 Hour	0.04 ppm	0.14 ppm
Particulate Matter 10 (PM ₁₀)	24 Hour	50 µg/m ³	150 µg/m ³
	Annual	20 µg/m ³	--
Particulate Matter 2.5 (PM _{2.5})	24 Hour	--	35 µg/m ³
	Annual	12 µg/m ³	15 µg/m ³

Note: The Pb standard is not listed because of the phase-out of leaded gasoline.
Source: California ARB, Ambient Air Quality Standards, website: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>, February 2010.

As can be seen in Table IV.C-3, the Basin is considered “non-attainment” for the O₃ (8-hour) and PM_{2.5} (24-hour) national standards, and is considered “non-attainment” for the O₃ (1-hour and 8-hour), PM₁₀ (24-hour and AAM) and PM_{2.5} (AAM) State standards.

**Table IV.C-3
Ambient Air Quality Attainment Status for San Francisco Bay Area Air Basin**

Pollutant	State-Level Attainment Status	National-Level Attainment Status
Ozone (1-hour)	Non-attainment	N/A
Ozone (8-hour)	Non-attainment	Non-attainment
Particulates (PM ₁₀), (24-hour)	Non-attainment	Unclassified
Particulates (PM ₁₀), (AAM)	Non-attainment	N/A
Fine Particulates (PM _{2.5}), (24-hour)	N/A	Non-attainment
Fine Particulates (PM _{2.5}), (AAM)	Non-attainment	Attainment
Carbon Monoxide (1-hour)	Attainment	Attainment
Carbon Monoxide (8-hr)	Attainment	Attainment
Nitrogen Dioxide (1-hr)	Attainment	N/A ^a
Nitrogen Dioxide (AAM)	Attainment	Attainment
Sulfur Dioxide (1-hour)	Attainment	N/A
Sulfur Dioxide (24-hour)	Attainment	Attainment
Sulfur Dioxide (AAM)	N/A	Attainment
Lead (Pb)	Attainment	Attainment

*Note: N/A = not applicable
AAM = Annual Arithmetic Mean*

^a National-Level nitrogen dioxide 1-hr standard was introduced in 2010 and attainment status for the Basin has not been determined.

Source: BAAQMD, <http://www.baaqmd.gov/Divisions/Technical-Services/Ambient-Air-Monitoring/Ambient-Air-Quality-Standards.aspx>, February 2010.

The most current average daily emissions inventory for the entire Basin and Marin County portion of the Basin is summarized in Table IV.C-4. As shown, motor vehicles generate the majority of ROG, NO_x, and CO emissions; stationary sources generate the most SO_x; and area-wide sources generate the most airborne particulates in the Basin. In Marin County portion of the Basin, motor vehicles generate the majority of ROG, NO_x, CO, and SO_x, while area-wide sources generate the most airborne particulates.

**Table IV.C-4
2008 Estimated Average Daily Regional Emissions**

Emissions Source	Emissions in Tons Per Day					
	ROG	CO	NO_x	SO_x	PM₁₀	PM_{2.5}
San Francisco Bay Area Air Basin						
Stationary (Point) Sources	106.6	44.3	50.6	45.9	16.3	12.1
Area-Wide Sources	87.9	161.9	16.9	0.6	175.5	52.9
Mobile Sources	183.1	1,541.5	380.5	14.9	20.3	16.3
Natural (non-anthropogenic) Sources	106.5	49.4	1.6	0.5	5.1	4.3

**Table IV.C-4
2008 Estimated Average Daily Regional Emissions**

Emissions Source	Emissions in Tons Per Day					
	ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}
Total Emissions	484.1	1,797.0	449.7	62.0	217.2	85.6
Marin County						
Stationary (Point) Sources	2.4	0.4	0.4	0.0	0.7	0.6
Area-Wide Sources	4.5	14.0	1.0	0.0	9.0	3.8
Mobile Sources	9.4	66.4	13.0	0.2	0.9	0.7
Natural (non-anthropogenic) Sources	7.0	3.9	0.1	0.0	0.4	0.3
Total Emissions	23.3	84.7	14.5	0.2	11.0	5.4
"-" represents data not available.						
Source: California Air Resources Board, website: http://www.arb.ca.gov/app/emsinv/emssumcat.php , February 2010.						

Existing Local Air Quality

Air quality in the Basin is monitored by the BAAQMD, which operates a regional network of air pollution monitoring stations to determine if the national and State standards for criteria air pollutants are being achieved. The BAAQMD San Rafael Monitoring Station is closest to the project site. This station currently monitors emission levels of O₃, CO, NO₂, and PM₁₀. Table IV.C-5 identifies the NAAQS and CAAQS for relevant air pollutants, the concentrations registered, and the violations of State and national pollutant standards that have occurred at the San Rafael Monitoring Station from 2006 to 2008.

As shown in Table IV.C-5, the San Rafael monitoring station measurements indicate that the ambient air concentrations in the vicinity of the project site have not exceeded the NAAQS or the CAAQS for CO, O₃, and NO₂ from 2006-2008 (most recent data available). The State 24-hour standard for PM₁₀ was exceeded once in 2006 and 2007.

Existing Air Pollutant Emissions in Local Vicinity

Air pollutant emissions are generated in the local vicinity of the project site by stationary and area-wide sources, such as space and water heating, landscape maintenance from leaf blowers and lawn mowers, consumer products, and mobile sources, primarily automobile traffic. None of the existing uses surrounding the project site involve industrial or manufacturing processes that would result in the release of toxic air emissions. Overall, motor vehicles are the primary source of pollutants in the project site vicinity.

**Table IV.C-5
Summary of Ambient Air Quality in the Project Vicinity**

Emissions Source	Standard	Year		
		2006	2007	2008
Carbon Monoxide (CO)				
Maximum 1-hour concentration measured		2.6 ppm	2.8 ppm	1.8 ppm
Days exceeding national 1-hour standard	35 ppm	0	0	0
Days exceeding State 1-hour standard	20 ppm	0	0	0
Maximum 8-hour concentration measured		1.5 ppm	1.3 ppm	1.1 ppm
Days exceeding national & State 8-hour standard	9.0 ppm	0	0	0
Ozone (O₃)				
Maximum 1-hour concentration measured		0.089 ppm	0.072 ppm	0.085 ppm
Days exceeding State 1-hour standard	0.09 ppm	0	0	0
Maximum 8-hour concentration		0.058 ppm	0.057 ppm	0.069 ppm
Days exceeding national 8-hour standard	0.075 ppm	0	0	0
Days exceeding State 8-hour standard	0.070 ppm	0	0	0
Nitrogen Dioxide (NO₂)				
Maximum 1-hour concentration measured		0.054 ppm	0.057 ppm	0.056 ppm
Days exceeding State 1-hour standard	0.25 ppm ¹	0	0	0
Annual Arithmetic Mean (AAM)		0.014 ppm	0.014 ppm	0.013 ppm
Exceedance of national AAM standard?	0.053 ppm	No	No	No
Exceedance of State AAM standard?	0.030 ppm	No	No	No
Respirable Particulate Matter (PM₁₀)				
Maximum 24-hour concentration measured		68 µg/m ³	56 µg/m ³	41 µg/m ³
Days exceeding national 24-hour standard	150 µg/m ³	0	0	0
Days exceeding State 24-hour standard	50 µg/m ³	1	1	0
Annual Arithmetic Mean (AAM)		18.1 µg/m ³	17.5 µg/m ³	18.6 µg/m ³
Exceedance of State AAM standard?	20 µg/m ³	No	No	No
<i>Note: ppm = parts per million by volume µg/m³ = micrograms per cubic meter ¹ In 2008, the nitrogen dioxide state standard was lowered from 0.25 to 0.18 ppm.</i>				
<i>Source: BAAQMD, Bay Area Air Pollution Summaries. http://www.baaqmd.gov/Divisions/Communications-and-Outreach/Air-Quality-in-the-Bay-Area/Air-Quality-Summaries.aspx, accessed February 2010.</i>				

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed national and/or state standards for CO are termed CO “hotspots.” The BAAQMD considers CO as a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots. Typical sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, hospitals, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive receptors to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential uses are considered

sensitive because people in residential areas are often at home for extended periods of time, so they could be exposed to pollutants for extended periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function.

The BAAQMD recommends the use of CALINE4, a dispersion model for predicting CO concentrations, as the preferred method of estimating localized pollutant concentrations at sensitive receptors near congested roadways and intersections. For each intersection analyzed, CALINE4 adds roadway-specific CO emissions calculated from peak-hour turning volumes to ambient CO air concentrations. For this analysis, localized CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the BAAQMD. The simplified procedure is intended as a screening analysis, which identifies a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations. The emission factors used in the analysis have been updated to EMFAC2007.

Using the simplified CALINE4 screening procedure described above, the maximum 1-hour and 8-hour CO concentrations were calculated for the four study intersections that were evaluated in the traffic report for the proposed project. The results of these calculations are presented in Table IV.C-6 for representative receptors located at each roadway edge as well as at 25, 50, and 100 feet from each roadway. The distances of 25, 50, and 100 feet from each roadway were selected because they represent locations where a person may be living or working for more than eight hours at a time. The national 1-hour CO ambient air quality standard is 35.0 ppm, and the state 1-hour CO ambient air quality standard is 20.0 ppm. The 8-hour national and state standards for localized CO concentrations are 9.0 ppm.

As shown in Table IV.C-6, existing CO concentration levels at the study intersections currently do not exceed the national and state 1-hour and 8-hour CO standards. Therefore, CO hotspots do not currently exist near these intersections.

Table IV.C-6
Existing (2009) Localized Carbon Monoxide Concentrations

Intersection	CO Concentrations in Parts per Million ^a							
	Roadway Edge		25 feet		50 feet		100 feet	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
1. Lagoon Road/Cove Road and Mar West	1.9	1.2	1.8	1.1	1.8	1.1	1.8	1.1
2. Tiburon Boulevard and Mar West	3.2	2.0	2.5	1.6	2.4	1.5	2.2	1.4
3. Mariner Way and Mar West	2.1	1.3	1.9	1.2	1.9	1.2	1.9	1.2
4. Tiburon Boulevard and Beach Road	2.4	1.5	2.1	1.3	2.0	1.3	2.0	1.2

^a The national 1-hour CO ambient air quality standard is 35.0 ppm, and the state 1-hour CO ambient air quality standard is 20.0 ppm. National and state 8-hour standards are 9.0 parts per million.
Traffic Information Source: DKS Associates, 2010.
Source: Christopher A. Joseph & Associates, February 2010. Calculation data and results are provided in Appendix C.

Existing Site Emissions

The approximately 2.35-acre project site is currently developed with the existing 10,500-square foot library. Air pollutant emissions are generated at the project site by stationary sources, such as space and water heating and architectural coatings (painting), and mobile vehicle traffic traveling to and from the site. The average daily emissions generated by the existing uses at the project site have been estimated utilizing the URBEMIS 2007 computer model recommended by the SCAQMD. The results of these calculations are shown in Table IV.C-7. Currently, the operational emissions of ROG, NO_x, and PM₁₀ at the project site do not exceed the BAAQMD thresholds for operational emissions associated with these pollutants. As shown in Table IV.C-7, motor vehicles are the primary source of air pollutant emissions associated with existing uses at the project site.

Table IV.C-7
Existing (2009) Daily Operational Emissions at
Project Site (lbs/day)

Operational Activity	ROG	NO _x	PM ₁₀
Summer			
Mobile Source Emissions	3.88	3.74	7.53
Area Source Emissions	0.19	0.12	0.01
Total Operational Emissions	4.07	3.86	7.54
Winter			
Mobile Source Emissions	4.84	5.92	7.53
Area Source Emissions	0.07	0.10	0.00
Total Operational Emissions	4.91	6.02	7.53
<i>Source: Christopher A. Joseph & Associates, February 2010. Calculation data and results provided in Appendix C</i>			

In addition, the GHG emissions resulting from the consumption of natural gas and electricity, as well as the consumption of fuel by motor vehicles traveling to and from the project site, by the existing library at the project site are shown in Table IV.C-8.

Existing State-wide and Regional Greenhouse Gas Emissions

The CEC published the *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004* in December 2006. This report indicates that California emitted between 425 to 468 million metric tons of GHG's in 1990. When considering fossil fuel emissions on a per capita basis, California is second lowest in the nation in per capita CO₂ emissions, with only the District of Columbia being lower. Between 1990 and 2000, California's population grew by 4.1 million people and during the 1990 to 2003 period, California's gross state product grew by 83 percent (in dollars, not adjusted for inflation). However, California's GHG emissions grew by only 12 percent between 1990 and 2003. The report concludes that California's ability to slow the rate of growth of GHG emissions is largely due to the success of its energy

efficiency, renewable energy programs, and commitment to clean air and clean energy. In fact, the state's programs and commitments lowered its GHG emissions rate of growth by more than half of what it would have been otherwise.

**Table IV.C-8
Existing (2009) Operational Greenhouse Gas Emissions**

Emissions Source	CO ₂ e Emissions in Metric Tons per Year
Natural Gas Consumption	19.83
Electricity Generation	41.22
Water Use	0.14
Motor Vehicles	602.67
Total	663.86
<i>Source: Christopher A. Joseph & Associates, March 2010. Calculation data and results provided in Appendix C.</i>	

In December 2008, the BAAQMD published a document entitled, "Source Inventory of Bay Area Greenhouse Gas Emissions". This document is a greenhouse gas inventory for the Bay Area, which reflects the estimated 2007 greenhouse gas emissions for all seven counties located in the jurisdiction of the BAAQMD- Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, Napa, and the southern portions of Solano and Sonoma counties. This greenhouse gas inventory is based on the standards for criteria pollutant inventories and is intended to support the BAAQMD's climate protection activities.

Based on the information contained in the "Source Inventory of Bay Area Greenhouse Gas Emissions", Table IV.C-9 below shows the regional (Bay Area) and local (Marin County, project location) 2007 greenhouse gas emissions from existing direct and indirect greenhouse gas sources. The emissions are estimated for existing industrial, commercial, transportation, residential, forestry, and agriculture activities. The estimated greenhouse gas emissions are presented in carbon dioxide equivalents, which weight each greenhouse gas by its global warming potential. The global warming potentials used in the BAAQMD document "Source Inventory of Bay Area Greenhouse Gas Emissions" are in accordance with the Second Assessment Report (SAR) of the Intergovernmental Panel on Climate Change (IPCC).

**Table IV.C-9
2007 Estimated Regional & Local Greenhouse Gas Emissions**

Emissions Source	Emissions in Million Metric Tons of CO ₂ e Per Year (2007)	
	Bay Area	Marin County
Industrial/Commercial	34.86	0.5
Residential Fuel	6.82	0.4
Electricity/Co-Generation	15.20	0.3
Off-Road Equipment	2.92	0.1
Transportation	34.87	1.3
Agricultural/Farming	1.11	0.2
Total Emissions	95.8	2.7

Source: Bay Area Air Quality Management District, Source Inventory of Bay Area Greenhouse Gas Emissions, December 2008.

Projected Impacts of Global Warming in California

According to the 2006 California Climate Action Team (CAT) Report, temperature increases arising from increased GHG emissions potentially could result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. If emissions from GHGs are not reduced significantly, the warming increase could have the following consequences in California³:

- The Sierra snowpack would decline between 70 and 90 percent, threatening California's water supply;
- Attainment of air quality standards would be impeded by increasing emissions, accelerating chemical processes, and raising inversion temperatures during stagnation episodes;
- Erosion of California's coastlines would increase as well as sea water intrusion;
- Pest infestation and vulnerability to fires of the State's forests would increase; and
- Rising temperatures would increase power demand, especially in the summer season.

³ California Environmental Protection Agency, *Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 11.*

California-Specific Adaptation Strategies

Because climate change is already affecting California and current emissions will continue to drive climate change in the coming decades, regardless of any mitigation measures that may be adopted, the necessity of adaptation to the impacts of climate change is recognized by the State of California. The 2009 California Climate Adaptation Strategy Discussion Draft begins what will be an ongoing process of adaptation, as directed by Gov. Schwarzenegger's Executive Order S-13-08. The goals of the strategy are to analyze risks and vulnerabilities and identify strategies to reduce the risks. Once the strategies are identified and prioritized, government resources would be identified. Finally, the strategy includes identifying research needs and educating the public.

Climate change risks are evaluated using two distinct approaches: (1) projecting the amount of climate change that may occur using computer-based global climate models and (2) assessing the natural or human system's ability to cope with and adapt to change by examining past experience with climate variability and extrapolating this to understand how the systems may respond to the additional impact of climate change. The major anticipated climate changes expected in the State of California include increases in temperature, decreases in precipitation, particularly as snowfall, and increases in sea level, as discussed above. These gradual changes will also lead to an increasing number of extreme events, such as heat waves, wildfires, droughts, and floods. This would impact public health, ocean and coast resources, water supply, agriculture, biodiversity, and the transportation and energy infrastructures.

Key preliminary adaptation recommendations included in the *Strategy* are as follows:

- Appointment of a Climate Adaptation Advisory Panel;
- Improved water management in anticipation of reduced water supplies, including a 20 percent reduction in per capita water use by 2020;
- Consideration of project alternatives that avoid significant new development in areas that cannot be adequately protected from flooding due to climate change;
- Preparation of agency-specific adaptation plans, guidance or criteria by September 2010;
- Consideration of climate change impacts for all significant state projects;
- Assessment of climate change impacts on emergency preparedness;
- Identification of key habitats and development of plans to minimize adverse effects from climate change;
- Development of guidance by the California Department of Public Health by September 2010 for use by local health departments to assess adaptation strategies;
- Amendment of Plans to assess climate change impacts and develop local risk reduction

strategies by communities with General Plans and Local Coastal Plans; and

- Inclusion of climate change impact information into fire program planning by state fire fighting agencies.

REGULATORY SETTING

Air quality in the United States is governed by the Federal Clean Air Act (FCAA). In addition to being subject to the requirements of the FCAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). At the federal level, the FCAA is administered by the U.S. EPA. In California, the CCAA is administered by the ARB at the state level and by the AQMDs at the regional and local levels.

Air quality within the Bay Area is addressed through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the Bay Area are discussed below.

Federal

Federal Ambient Air Quality Standards

The FCAA governs air quality in the United States and is administered by the U.S. EPA. The U.S. EPA is responsible for setting and enforcing the NAAQS for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The U.S. EPA also has jurisdiction over emissions sources outside state waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

As part of its enforcement responsibilities, the U.S. EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP.

Climate Change

In the past, the U.S. EPA has not regulated GHGs under the Clean Air Act because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change. However, the U.S. Supreme Court recently held that the U.S. EPA must consider regulation of motor-vehicle GHG emissions⁴. The Court ruled that GHGs fit within the Clean Air Act's definition of a pollutant and that the

⁴ Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007))

U.S. EPA did not have a valid rationale for not regulating GHGs. In April 2009, the U.S. EPA proposed an endangerment finding for GHGs under the Clean Air Act. This is the first step in regulating GHGs under the provisions of the Clean Air Act.

State

State Ambient Air Quality Standards

Although the FCAA established NAAQS, individual states retained the option to adopt more stringent standards and to include other pollution sources. California had already established its own air quality standards (i.e., CAAQS) when federal standards were established, and because of the unique meteorological problems in California, there is considerable diversity between the State and national ambient air quality standards, as shown in Table IV.C-2. California ambient standards tend to be at least as protective as national ambient standards and are often more stringent.

California Air Resources Board

The ARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the ARB conducts research, sets CAAQS, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. For example, the ARB establishes emissions standards for motor vehicles sold in California, consumer products (e.g., hair spray, aerosol paints, and barbecue lighter fluid) and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. To address diesel particulate and other TAC emissions, the ARB published the Air Quality and Land Use Handbook: A Community Health Perspective (April 2005) as an “informational guide” to prioritize the important sources of TACs and reduce exposures to proximate populations. Furthermore, the ARB also oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

Climate Change

In response to growing scientific and political concern with global climate change, California has adopted a series of laws to reduce emissions of GHGs to the atmosphere from commercial and private activities within the State.

Executive Order S-3-05

California Governor Arnold Schwarzenegger announced, on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. In response to the Executive Order, the Secretary of Cal/EPA created the Climate Action Team (CAT), which, in March 2006, published the Climate Action Team Report to Governor Schwarzenegger

and the Legislature (the “2006 CAT Report”). The 2006 CAT Report identifies a recommended list of strategies that the State could pursue to reduce climate change GHG emissions. These are strategies that could be implemented by various State agencies to ensure that the Governor’s targets are met and can be met with existing authority of the State agencies.

Assembly Bill 32

In 2006, the California State Legislature adopted Assembly Bill (AB 32), the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG emissions in California, and requires the ARB, the State agency charged with regulating statewide air quality, to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to statewide levels in 1990 by 2020. To achieve this goal, AB 32 mandates that the ARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved.

As a central requirement of AB 32, the ARB was assigned the task of developing a Scoping Plan that outlines the State’s strategy to achieve the 2020 greenhouse gas emissions limit. On December 11, 2008, ARB adopted a Scoping Plan to reduce GHG emissions to 1990 levels. The Scoping Plan’s recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program, strategies to enhance and expand proven cost-saving energy efficiency programs, California’s clean cars standards, increases in the amount of clean and renewable energy used to power the State, and a low-carbon fuel standard that will make the fuels used in the State cleaner. Furthermore, the Scoping Plan also proposes full deployment of the California Solar Initiative, high-speed rail, water-related energy efficiency measures, and a range of regulations to reduce emissions from trucks and from ships docked in California ports. ARB has until January 1, 2011, to adopt the necessary regulations to implement that plan. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Senate Bill 97

In August 2007, the Legislature adopted Senate Bill 97 (SB 97), requiring the California Office of Planning and Research (OPR) to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Resources Agency by July 1, 2009. Following receipt of these guidelines, the Resources Agency must certify and adopt the guidelines prepared by OPR by January 1, 2010.

OPR submitted its proposed guidelines to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency undertook the formal rulemaking process to certify and adopt the amendments as part of the state regulations implementing CEQA and adopted the CEQA Guidelines Amendments on December 30, 2009 and became effective on March 18, 2010.

In the CEQA Guideline Amendments, a threshold of significance for greenhouse gas emissions was not specified, nor does it prescribe assessment methodologies or specific mitigation measures. Instead, the

amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but rely on the lead agencies in making their own determinations based upon substantial evidence. The CEQA amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

Senate Bill 375

In September of 2008, the California legislature adopted SB 375, legislation which: (1) relaxes CEQA requirements for some housing projects that meet goals for reducing greenhouse-gas emissions and (2) requires the regional governing bodies in each of the state's major metropolitan areas to adopt, as part of their regional transportation plan, "sustainable community strategies" that will meet the region's target for reducing GHG emissions. SB 375 creates incentives for implementing the sustainable community strategies by allocating federal transportation funds only to projects that are consistent with the emissions reductions.

Other State Measures

The Governor and the California legislature have passed additional regulations with the intent on reducing GHG emissions in order to achieve AB 32. These include the following

- Executive Order S-01-07 requires a 10% or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by ARB.
- AB 1493 (Pavley Standard) requires ARB to adopt regulations to reduce GHG emissions for noncommercial passenger vehicles and light-duty trucks of model year 2009 and thereafter.
- Under Senate Bill 107, California's Renewables Portfolio Standard (RPS) requires retail suppliers of electric services to increase procurement from eligible renewable energy resources to 20% by 2010.
- California Executive Order S-14-08 mandates retail suppliers of electric services to increase procurement from eligible renewable energy resources to 33% by 2020.
- Senate Bill (SB) 1368 requires the California Public Utilities Commission (PUC) and California Energy Commission (CEC) to establish GHG emission performance standards for the generation of electricity.

Regional

Bay Area Air Quality Management District

The BAAQMD is the regional agency responsible for air quality regulation within the Bay Area Air Basin. The BAAQMD regulates air quality through its planning and review activities. The district has permit authority over most types of stationary emission sources and can require stationary sources to

obtain permits; it can also impose emission limits, set fuel or material specifications, or establish operational limits to reduce air emissions. The BAAQMD regulates new or expanding stationary sources of toxic air contaminants.

In January 2006, the BAAQMD, in cooperation with the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), adopted the Bay Area 2005 Ozone Strategy. The Ozone Strategy is a roadmap showing how the San Francisco Bay Area will achieve compliance with the state 1-hour ozone standard as expeditiously as practicable, and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. The control strategy includes stationary-source control measures to be implemented through BAAQMD regulations; mobile-source control measures to be implemented through incentive programs and other activities; and transportation control measures to be implemented through transportation programs in cooperation with the MTC, local governments, transit agencies, and others. The 2005 Ozone Strategy also represents the Bay Area's most recent triennial assessment of the region's strategy to attain the state one-hour ozone standard. In this, the 2005 Ozone Strategy replaces the 2000 Clean Air Plan (CAP). Like the 2000 CAP and prior versions thereof, the 2005 Ozone Strategy continues to implement and expand key mobile-source emissions control, including 19 transportation control measures. Although an ozone-control plan, the 2005 Ozone Strategy also includes information concerning particulate matter.

In response to the U.S. EPA redesignation of the basin for the 1-hour federal ozone standard to nonattainment, the BAAQMD, ABAG, and MTC were required to develop an ozone attainment plan to meet this standard. The 1999 Ozone Attainment Plan was prepared and adopted by these agencies in June 1999. However, in March 2001, the U.S. EPA proposed and took final action to approve portions of the 1999 ozone plan and disapprove other portions, while also making the finding that the Bay Area had not attained the national 1-hour ozone standard. As a result, a revised Ozone Attainment Plan was prepared and adopted in October 2001. The 2001 Ozone Attainment Plan amends and supplements the 1999 plan. The 2001 Ozone Attainment Plan contains control strategies for stationary and mobile sources. The adopted mobile-source control program was estimated to significantly reduce volatile organic compound and NO_x emissions between 2000 and 2006, reducing emissions from on- and off-road diesel engines (including construction equipment). In addition to emission reduction requirements for engines and fuels, the 2001 Ozone Attainment Plan identified 28 transportation control measures to reduce automobile emissions, including improved transit service and transit coordination, new carpool lanes, signal timing, freeway incident management, and increased state gas tax and bridge tolls.

With respect to odors, BAAQMD Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds. The limitations of this regulation limit the "discharge of any odorous substance which causes the ambient air at or beyond the property line...to be odorous and to remain odorous after dilution with four parts of odor-free air." The BAAQMD must receive odor complaints from ten or more complainants within a 90-day period in order for the limitations of this regulation to go into effect. If this criterion has been met, an odor violation can be issued by the BAAQMD if a test panel of people can detect an odor in samples collected periodically from the source.

Local

Town of Tiburon General Plan (Tiburon 2020)

Local jurisdictions, such as the Town of Tiburon, have the authority and responsibility to reduce air pollution through its policies and decision-making authority. Specifically, the Town is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. As such, the Tiburon 2020 identifies policies and programs consistent with the Basin CAP that help the Town contribute to regional air quality improvement efforts.

In accordance with CEQA requirements and the CEQA review process, the Town assesses the air quality impacts of new development projects, requires mitigation of potentially adverse air quality impacts, and enforces the implementation of said mitigation measures via discretionary permits. To ensure that air quality within the Town and region will meet federal and state standards, the Town relies on the expertise of the BAAQMD and utilizes the BAAQMD CEQA Guidelines as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

Tiburon 2020 sets forth policy guidelines for decision making on issues related to development and conservation in the Town of Tiburon. Section IV.F (Land Use and Planning) assesses the consistency of the proposed project with the relevant goals and policies of Tiburon 2020. Section IV.F (Land Use and Planning) assesses the consistency of the proposed project with the relevant goals and policies of Tiburon 2020 related to air quality.

ENVIRONMENTAL IMPACTS

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

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people;
- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The thresholds discussed below are currently recommended by the BAAQMD in the *BAAQMD CEQA Guidelines* to determine the significance of air quality impacts.

Construction/Demolition Emissions

According to the BAAQMD CEQA Guidelines, PM₁₀ is the pollutant of greatest concern with respect to construction activities. Construction emissions of PM₁₀ can vary greatly depending upon the level of activity, construction equipment, local soils, and weather conditions, among other factors. As a result, the *BAAQMD CEQA Guidelines* specifies, “[t]he District’s approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions.” Therefore, the determination of significance with respect to construction emissions should be based on a consideration of the control measures to be implemented. If all the applicable control measures for PM₁₀ indicated in the *BAAQMD CEQA Guidelines* would be implemented, then air pollutant emissions from construction activities would be considered less than significant. If a project would not implement all applicable control measures, construction emissions would be considered a significant impact.

Operational Emissions

The BAAQMD recommends that individual project’s impacts involving direct and/or indirect operational emissions that exceed the following thresholds be considered significant:

- 80 pounds per day (ppd) of ROG
- 80 ppd of NO_x
- 80 ppd of PM₁₀

Direct emissions are those that are emitted on a site and include stationary sources and on-site mobile equipment. Examples of land uses and activities that generate direct emissions are industrial operations and sources subject to an operating permit by the BAAQMD. Indirect emissions come from mobile sources that access the project site but generally emit off site. For many types of land-use development projects, the principal sources of air pollutant emissions are the motor vehicle trips generated by the project. It should be noted that these significance thresholds do not account for the size of the project and therefore a larger project is more likely to exceed these thresholds.

Local CO Concentrations

Indirect CO emissions are considered significant if they will contribute to a violation of the State standards for CO (9 ppm averaged over 8 hours and 20 ppm over 1 hour). CO emissions are localized, and typically analyzed in terms of their impacts to specific roadway segments or intersections.

Construction equipment exhaust contains CO and ozone precursors. However, these exhaust emissions are included in the emission inventory that is the basis for regional air quality plans, and are not expected to impede attainment and maintenance of ozone and CO standards in the Bay Area. In addition, as mentioned before, although State standards for PM_{2.5} exist, area designations have not yet been determined. As a result, State plans for addressing PM_{2.5} emissions are not yet in place and air quality management districts do not include these emissions in their analyses of construction impacts.

Odors

Odors would be considered significant if the project would result in a frequent exposure of members of the public to objectionable odors. According to the BAAQMD, typical uses that may result in significant odor impacts include wastewater treatment plant, sanitary landfill, transfer station, composting facility, petroleum refinery, asphalt batch plant, chemical manufacturing, fiberglass manufacturing, painting/coating operations, rendering plant, and coffee roasters.

TACs

According to the *BAAQMD CEQA Guidelines*, when evaluating the potential impacts of TACs related to a project, two situations should be considered: (1) the proposed project is a source of TACs and will be located near sensitive receptors; and/or (2) sensitive receptors within the proposed project area will be located near an existing source of TACs. As stated in the *BAAQMD CEQA Guidelines*, a project that emits (or exposes sensitive receptors to) TACs and exceeds the following criteria is considered to have a significant air quality impact:

- Probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million;⁵ or
- Ground-level concentrations of non-carcinogenic TACs would result in a hazard index greater than one (1) for the MEI.⁶

Greenhouse Gas Emissions

Generally, the evaluation of an impact under CEQA requires measuring data from a project against a “threshold of significance”. At present, there are no officially adopted greenhouse gas emission significance thresholds for the State, Town or air district. Thus, prior to having a significance threshold for GHGs emissions that has been formally adopted by the State, the air agency or the local municipality,

⁵ An MEI is a hypothetical off-site person, usually at or near the site boundary, who would receive the maximum exposure from a facility’s operations.

⁶ A hazard index measures the potential for non-cancer health effects. It is the ratio of the estimated exposure level to the Reference Exposure Level, which is the level at or below which no adverse health effects are anticipated.

emissions of GHGs will be quantified but will not be compared to a quantitative threshold. Instead, a project will be deemed to contribute to a cumulative significant adverse GHG emissions impact if it is inconsistent with those applicable guidance documents issued in furtherance of AB 32 to date, including the 2006 CAT Report and the ARB Scoping Plan.

Cumulative Impacts

According to the BAAQMD CEQA Guidelines, any project that would individually have a significant air quality impact would also have a significant cumulative air quality impact. For a project that does not individually have a significant air quality impact, the BAAQMD requires that a determination of cumulative impacts be based on an evaluation of the consistency of the proposed project with the local General Plan and of the General Plan with the regional air quality plan. The appropriate regional air quality plan for this analysis is the 2000 CAP. If a project is proposed in a town or county with a General Plan that is consistent with the CAP, and the project is consistent with that General Plan, the project would not have a significant cumulative impact. If the town or county General Plan is not consistent with the CAP, or the project is not consistent with the General Plan, quantitative analysis is required to determine whether the impact is significant.

Project Impacts

Impact AQ-1: Implementation of the proposed project would conflict with the applicable air quality plan. (SU)

Approval of the proposed project would require a General Plan Amendment. For General Plan amendments, the BAAQMD *CEQA Guidelines* recommend that the impact of the change in land use designation with respect to vehicle miles traveled (VMT) and the potential for the project to expose sensitive receptors to sources of objectionable odors, toxics, or accidental releases of hazardous materials be evaluated to determine consistency with the current CAP. As described in Section IV.H, Transportation/Traffic, the proposed land use associated with the proposed project would generate more vehicle trips (and more miles traveled) than those that could be generated under the existing General Plan designation. A Transportation Demand Management (TDM) plan, which through implementation of a number of measures would reduce the number of peak-hour trips associated with increased VMT. Control measures include improved transit service and transit coordination, new carpool lanes, signal timing, freeway incident management, and increased gas tax and bridge tolls. Measures can be mixed and matched so that the total number of mitigated trips is equal to or greater than the new peak-hour trips generated by the project. These programs, once implemented, must be on-going for the occupied life of the development, but would reduce the number of vehicle trips and bring the proposed project into conformance with estimates used in the *Bay Area 2005 Ozone Attainment Plan*.

However, since the proposed project is a library expansion, there are a limited number of measures that could reduce the proposed project's VMT. Although the project site is served by public transit and it could also be assumed that some trips to the Library would be of a "carpool" nature, it would be

speculative to assume that these types of measures would result in any significant reduction in VMT. Therefore, implementation of traffic reduction measures to bring the proposed project into conformance with estimates used in the *Bay Area 2005 Ozone Attainment Plan* is not feasible. Thus, this impact would be considered *significant and unavoidable*.

Impact AQ-2: Implementation of the proposed project would not violate an air quality standard. (LTS/M)

Construction/Demolition Emissions

The proposed project would expand the existing Belvedere-Tiburon Public Library through the construction of a two-story addition. The existing 10,500 sf Library (11,990 sf including a mechanical mezzanine area) would be expanded by 18,000 sf to 28,500 sf (29,990 sf including the mechanical mezzanine area) in floor area. During the construction phase of development of the proposed project, on-site stationary sources, heavy-duty construction vehicles, construction worker vehicles, and energy use would generate emissions. In addition to construction vehicle emissions, fugitive dust would also be generated during grading and construction activities. Dust is generated when grading equipment breaks down surface materials. The resulting dust, which includes PM₁₀, is subsequently entrained into the air by wind and vehicle tires. Although much of this airborne dust would settle out on or near the project site, smaller particles would remain in the atmosphere, increasing existing particulate levels within the surrounding area. Sensitive receptors that could be affected by construction include the existing residential areas near the project site. Although the project's construction-related emissions would be temporary in duration, in the absence of control measures, the emissions could be substantial. This would be a temporary, but potentially *significant impact*. As described above, the determination of significance with respect to construction emissions is based on whether all the applicable control measures for PM₁₀ indicated in the *BAAQMD CEQA Guidelines* would be implemented.

Mitigation Measure AQ-2a Construction Emissions: Implementation of the following measures would reduce airborne dust by reducing and controlling loose soils in areas subject to dust creating activity. As a condition of the construction contracts, the project sponsors shall require that construction contractors follow these construction practices:

- a. Water all active construction areas at least twice daily.
- b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
- c. Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at the construction sites.
- d. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at the construction sites.

- e. Sweep public streets adjacent to construction sites daily (with water sweepers) if visible soil material is carried onto the streets.
- f. Hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- g. Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- h. Limit traffic speeds on unpaved roads to 15 miles per hour.
- i. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- j. Replant vegetation in disturbed areas as soon as possible.
- k. Wash off the tires or tracks of all trucks and equipment leaving the construction site.
- l. Install wind breaks at the windward sides of the construction areas
- m. Suspend excavation and grading activities when wind (as instantaneous gusts) exceeds 25 miles per hour.

Therefore, upon implementation of Mitigation Measure AQ-2a this impact would be *less than significant*.

Regional Operational Emissions – Daily Emissions of ROG, NO_x, and PM₁₀

Operational emissions associated with the ultimate development and operation of the proposed project would result primarily from increased vehicular trips to and from the development. Other sources of emissions associated with the project would include area source emissions, such as the regular use of natural gas for water and space heaters and landscaping equipment. The primary sources of emissions would continue to occur from the vehicular trips generated by the project.

The predicted mobile source and area source emissions associated with project operation were calculated using the URBEMIS 2007 computer model distributed for use by the ARB and recommended for use by the BAAQMD. The average daily indirect and direct emissions associated with the proposed project are presented in Table IV.C-10 and are compared with the BAAQMD project-specific recommended thresholds of significance for the sources of pollutants for the proposed project. It should be noted that this analysis represents the net increase in air pollutant emissions associated with the operation of the project. As shown in the table, the project would not generate average daily direct and indirect emissions of ROG and NO_x and PM₁₀ in excess of the significance thresholds by 2012.

**Table IV.C-10
Air Pollutant Emissions from Project Operations (lbs/day)**

Operational Activity	ROG	NO_x	PM₁₀
Proposed Project Summer Emissions 2012			
Existing Operational Emissions	4.07	3.86	7.54
Total Buildout Emissions	9.06	8.78	20.44
Net Increase in Emissions	4.99	4.92	12.9
Significance Threshold	80	80	80
Significant Impact?	No	No	No
Proposed Project Winter Emissions 2012			
Existing Operational Emissions	4.91	6.02	7.53
Total Buildout Emissions	10.99	13.62	20.43
Net Increase in Emissions	6.08	7.6	12.9
Significance Threshold	80	80	80
Significant Impact?	No	No	No
<i>Source: Christopher A. Joseph & Associates, 2009.</i>			

As shown in Table IV.C-10, the net increase in operational emissions with implementation of the proposed project would not generate average daily direct and indirect emissions of ROG, NO_x, and PM₁₀ in excess of the significance thresholds. Therefore, impacts related to generation of operational emissions of ROG, NO_x, and PM₁₀ for the proposed project buildout would be *less than significant*.

Impact AQ-3: Implementation of the proposed project would not expose sensitive receptors to substantial pollutants. (LTS)

Local CO Concentrations

As stated previously, the BAAQMD recommends that CO modeling be performed for projects for which traffic would affect intersections or roadway segments operating at LOS E or F, or would cause a decline to LOS E or F. Due to the low number of intersections analyzed in the traffic study, CO modeling was performed for the all of the study intersections listed below:

Project Buildout (2012)

- Lagoon Road/Cove Road and Mar West

- Tiburon Boulevard and Mar West
- Mariner Way and Mar West
- Tiburon Boulevard and Beach Road

For this analysis, CO concentrations were calculated based on a simplified CALINE4 screening procedure developed by the BAAQMD. This methodology assumes worst-case conditions (i.e., wind direction is parallel to the primary roadway, 90° to the secondary road; wind speed of less than one meter per second; and a high level of atmospheric stability or lack of change) and provides a screening of maximum, worst-case CO concentrations. Maximum CO concentrations were calculated for peak-hour traffic volumes at the study intersections noted above. Results are presented below in Table IV.C-11. Therefore, project impacts related to localized CO concentrations would be *less than significant*.

**Table V.C-11
Future with Project (2012) Localized Carbon Monoxide Concentrations**

Intersection	CO Concentrations in Parts per Million ^a							
	Roadway Edge		25 feet		50 feet		100 feet	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
1. Lagoon Road/Cove Road and Mar West	1.9	1.1	1.8	1.1	1.8	1.1	1.8	1.1
2. Tiburon Boulevard and Mar West	3.2	2.1	2.6	1.6	2.4	1.5	2.2	1.4
3. Mariner Way and Mar West	2.0	1.3	1.9	1.2	1.9	1.2	1.9	1.1
4. Tiburon Boulevard and Beach Road	2.3	1.5	2.1	1.3	2.0	1.3	2.0	1.2

^a The national 1-hour CO ambient air quality standard is 35.0 ppm, and the state 1-hour CO ambient air quality standard is 20.0 ppm. National and state 8-hour standards are 9.0 parts per million.
Traffic Information Source: DKS Associates, 2009.
Source: Christopher A. Joseph & Associates, February 2010. Calculation data and results are provided in Appendix C.

TACs

TACs are typically associated with a variety of sources, including industrial facilities such as refineries, chemical plants and chrome platers, commercial facilities such as dry cleaners and gasoline stations, and motor vehicles. TACs emissions from motor vehicles are generally a result of diesel exhaust emissions associated with truck or bus operations and along heavily-traveled freeways.

The proposed project does not include land uses such as those previously described, but it would generate traffic trips. Although the project would generate new traffic trips, the amount of TACs that would be generated by these new trips is not anticipated to be of a high enough concentration to pose a cancer risk that exceeds 10-in-1-million or a non-cancer risk greater than a hazard index of 1.0. Therefore, project impacts related to TACs would be *less than significant*.

The ambient air environment that currently exists on and around the project site would also have the potential to impact the children and the elderly at the Project Site. Based on ARB siting

recommendations⁷, sensitive receptors should not be sited within 1,000 feet of a warehouse distribution center which has extensive heavy-duty truck activity, within 500 feet of a freeway, within 300 feet of a large gas station, 50 feet of a typical gas dispensing facility or within 300 feet of a dry cleaning facility that uses perchloroethylene. The project site boundary is greater than 500 feet from any freeway. Because the project is not located within the radii of the listed source types, the siting of the project site would result in a *less than significant* impact with regard to the exposure of on-site users to the TAC emission sources identified in ARB's siting recommendations.

Impact AQ-4: Implementation of the proposed project would not create objectionable odors. (NI)

According to the BAAQMD CEQA Guidelines, the types of projects that commonly result in odor impacts include: wastewater treatment plant, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing, fiberglass manufacturing, auto body shops, rendering plants, and coffee roasters. The proposed project does not include any of these uses and would not create objectionable odors that would affect a substantial number of people. Therefore, there would be *no impact* related to odors, and no further analysis of this issue is required.

Impact AQ-5: The proposed project is not inconsistent with applicable guidance documents issued in furtherance of AB 32 to date, including the 2006 CAT Report and the ARB Scoping Plan. (LTS)

Pursuant to CEQA Guidelines Section 15064.4(a), the Town has made a good-faith effort, based on the scientific and factual data available, to calculate the amount of GHG emissions that would result from the proposed project. These calculations are provided in Appendix C and the inventory of emissions is shown in Table IV.C-12, below. Sources of GHG emissions from the proposed project arise out of both construction and operation and include motor vehicles, natural gas consumption, electricity generation, and water consumption.

During construction activities at the project site, the consumption of fuel by the on-site equipment would generate GHG emissions. The URBEMIS 2007 model, which can estimate the daily and annual amount of CO₂ emissions generated by on-site equipment during construction activities at the project site, was used to estimate the amount of construction-related GHG emissions associated with the proposed project. As URBEMIS 2007 reports annual emissions in English tons, the results were converted to metric tons for reporting consistency. The reported emissions in this category include the use of construction equipment during grading, construction and paving, haul truck trips to the site, construction worker trips to the site, and vendor trips to the site.

During operation of the proposed project, the consumption of fossil fuels is necessary to generate electricity, provide heating and hot water for the on-site land uses, and convey, transport, and treat water. Fuel is also consumed by on-road mobile vehicles associated with the proposed project. The consumption of these fossil fuels creates GHG emissions. In calculating the GHG emissions estimated to result from

⁷ ARB, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005.

the proposed project, the future fuel consumption rates and water use for the proposed project by these sources were estimated based on the proposed land uses. The GHG emission factors from the California Climate Action Registry (CCAR) Protocol for natural gas and electricity were then applied to the respective consumption rates, to calculate annual GHG emissions in metric tons. GHG emissions from water consumption were determined by evaluating the water-related energy use relationship identified in the CEC's California's Water-Energy Relationship document. The on-road mobile vehicle miles per day and vehicle fleet mix with the proposed project were estimated using the URBEMIS 2007 computer model and sources of assumed miles per gallon were based upon the National Highway Traffic Safety Administration Summary of Fuel Economy Performance and the U.S. Department of Energy Transportation Energy Book. The GHG emission factors from the CCAR Protocol for motor vehicles were applied to calculate annual GHG emissions in metric tons.

Table IV.C-12
Predicted Proposed Project Greenhouse Gas Emissions

Emissions Source	CO ₂ e Emissions in Metric Tons
Construction (2011-2014)	173
Emissions Source	CO ₂ e Emissions in Metric Tons per Year
Operations	
Natural Gas Use	34
Electrical Use	71
Motor Vehicles	1,636
Water Consumption	0.2
Total	1,741
<i>Source: Christopher A. Joseph & Associates, 2010.</i>	

The consistency of the proposed project with the strategies from the 2006 CAT Report and ARB's Scoping Plan measures is evaluated in Table IV.C-13, Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies, and Table IV.C-14, Project Consistency with Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures, respectively. As shown, the proposed project would be consistent with all feasible and applicable strategies of the 2006 CAT Report and the recommended measures of ARB Scoping Plan to reduce GHG emissions in California. Therefore, this impact would be *less than significant* and no mitigation measures are required.

**Table IV.C-13
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies**

Strategy	Project Consistency
California Air Resources Board	
<u>Vehicle Climate Change Standards</u> AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by ARB in September 2004.	Consistent. The vehicles that travel to and from the project site on public roadways would be in compliance with ARB vehicle standards that are in effect at the time of vehicle purchase.
<u>Diesel Anti-Idling</u> In July 2004, ARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Consistent. The diesel-fueled commercial trucks making deliveries to the project site would be required to comply with all applicable adopted ARB vehicle standards.
<u>Hydrofluorocarbon Reduction</u> 1) Ban retail sale of HFC in small cans. 2) Require that only low GWP refrigerants be used in new vehicular systems. 3) Adopt specifications for new commercial refrigeration. 4) Add refrigerant leak-tightness to the pass criteria for vehicular inspection and maintenance programs. 5) Enforce federal ban on releasing HFCs.	Consistent. This strategy applies to consumer products. All applicable products purchased by employees and patrons of the proposed project would comply with the regulations that are in effect at the time of manufacture.
<u>Transportation Refrigeration Units, Off-Road Electrification, Port Electrification (ship to shore)</u> Require all new transportation refrigeration units (TRU) to be equipped with electric standby. Require cold storage facilities to install electric infrastructure to support electric standby TRUs.	Not applicable. The proposed project would not involve the use of transportation refrigeration units.
<u>Manure Management</u> Improved management practices, manure handling practices, and lagoon/liquid waste control options.	Not applicable. The proposed project would not involve any manure handling.
<u>Semi Conductor Industry Targets</u> Emission reduction rules for semiconductor operations.	Not applicable. The proposed project would not involve any semiconductor operations.
<u>Alternative Fuels: Biodiesel Blends</u> ARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	Consistent. The diesel vehicles that travel to and from the project site on public roadways could utilize this fuel once it is commercially available.

Table IV.C-13
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
<p><u>Alternative Fuels: Ethanol</u></p> <p>Increased use of E-85 fuel.</p>	<p>Consistent.</p> <p>Employees and patrons of the proposed project could purchase flex-fuel vehicles and utilize this fuel once it is commercially available in the region and local vicinity.</p>
<p><u>Heavy-Duty Vehicle Emission Reduction Measures</u></p> <p>Increased efficiency in the design of heavy duty vehicles and an education program for the heavy duty vehicle sector.</p>	<p>Consistent.</p> <p>The heavy-duty vehicles (e.g., refuse and delivery trucks) that travel to and from the project site on public roadways would be subject to all applicable ARB efficiency standards that are in effect at the time of vehicle manufacture.</p>
<p><u>Reduced Venting and Leaks on Oil and Gas Systems</u></p> <p>Improved management practices in the production, processing, transport, and distribution of oil and natural gas.</p>	<p>Not applicable.</p> <p>The proposed project does not involve any production, processing, transport, or distribution of oil and natural gas.</p>
<p><u>Hydrogen Highway</u></p> <p>The California Hydrogen Highway Network (CA H2 Net) is a State initiative to promote the use of hydrogen as a means of diversifying the sources of transportation energy.</p>	<p>Not applicable.</p> <p>The proposed project would not be responsible for promoting the use of hydrogen for transportation energy. However, employees and patrons of the proposed project could use this fuel once it becomes commercially available.</p>
<p><u>Achieve 50% Statewide Recycling Goal</u></p> <p>Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48% has been achieved on a statewide basis. Therefore, a 2% additional reduction is needed.</p>	<p>Consistent.</p> <p>The proposed project would comply with the requirements set forth in AB 939, which requires each city or county to divert 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting.</p>
<p><u>Landfill Methane Capture</u></p> <p>Install direct gas use or electricity projects at landfills to capture and use emitted methane.</p>	<p>Not applicable.</p> <p>The proposed project does not involve landfill operations.</p>
<p><u>Zero Waste – High Recycling</u></p> <p>Efforts to exceed the 50 percent goal would allow for additional reductions in climate change emissions.</p>	<p>Consistent.</p> <p>The proposed project would comply with the requirements of AB 939. The proposed project would also be subject to all applicable State and Town requirements for solid waste reduction as they change in the future.</p>

Table IV.C-13
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Department of Forestry	
<u>Forest Management</u> Increasing the growth of individual forest trees, the overall age of trees prior to harvest, or dedicating land to older aged trees.	Not applicable. The proposed project is not located within or near a forest.
<u>Forest Conservation</u> Provide incentives to maintain an undeveloped forest landscape.	Not applicable. The proposed project is not located within or near a forest.
<u>Fuels Management/Biomass</u> Reduce the risk of wildland fire through fuel reduction and biomass development.	Not applicable. The proposed project is not located within or near a forest or an area of open space in which fuel accumulation is an issue.
<u>Urban Forestry</u> A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	Not applicable. The proposed project is not located in an urban setting.
<u>Afforestation/Reforestation</u> Reforestation projects focus on restoring native tree cover on lands that were previously forested and are now covered with other vegetative types.	Not applicable. The proposed project is not located within or near a forest.
Department of Water Resources	
<u>Water Use Efficiency</u> Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions.	Consistent. The proposed project would be subject to all applicable State and Town requirements for water use efficiency.
Energy Commission (CEC)	
<u>Building Energy Efficiency Standards in Place and in Progress</u> Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	Consistent. The proposed project would be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development.

Table IV.C-13
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
<p><u>Appliance Energy Efficiency Standards in Place and in Progress</u></p> <p>Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).</p>	<p>Consistent.</p> <p>Under State law, appliances that are purchased for the proposed project would be consistent with energy efficiency standards that are in effect at the time of manufacture.</p>
<p><u>Fuel-Efficient Replacement Tires & Inflation Programs</u></p> <p>State legislation established a statewide program to encourage the production and use of more efficient tires.</p>	<p>Consistent.</p> <p>Employees and patrons of the proposed project could purchase tires for their vehicles that comply with State programs for increased fuel efficiency.</p>
<p><u>Cement Manufacturing</u></p> <p>Cost-effective reductions to reduce energy consumption and to lower carbon dioxide emissions in the cement industry.</p>	<p>Not applicable.</p> <p>The proposed project does not involve cement manufacturing.</p>
<p><u>Municipal Utility Energy Efficiency Programs/Demand Response</u></p> <p>Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.</p>	<p>Not applicable.</p> <p>While this strategy is not applicable, the proposed project would not preclude the implementation of this strategy by municipal utility providers.</p>
<p><u>Municipal Utility Renewable Portfolio Standard</u></p> <p>California's Renewable Portfolio Standard (RPS), established in 2002, requires that all load serving entities achieve a goal of 20 percent of retail electricity sales from renewable energy sources by 2017, within certain cost constraints.</p>	<p>Not applicable.</p> <p>While this strategy is not applicable, the proposed project would not preclude the implementation of this strategy by municipal utility providers.</p>
<p><u>Municipal Utility Combined Heat and Power</u></p> <p>Cost effective reduction from fossil fuel consumption in the commercial and industrial sector through the application of on-site power production to meet both heat and electricity loads.</p>	<p>Not applicable.</p> <p>While this strategy is not applicable, the proposed project would not preclude the implementation of this strategy by municipal utility providers.</p>
<p><u>Municipal Utility Electricity Sector Carbon Policy</u></p> <p>State agencies to address ways to transition investor-owned utilities away from carbon-intensive electricity sources.</p>	<p>Not applicable.</p> <p>While this strategy is not applicable, the proposed project would not preclude the implementation of this strategy by municipal utility providers.</p>

**Table IV.C-13
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies**

Strategy	Project Consistency
<p><u>Alternative Fuels: Non-Petroleum Fuels</u></p> <p>Increasing the use of non-petroleum fuels in California's transportation sector, as recommended as recommended in the CEC's 2003 and 2005 Integrated Energy Policy Reports.</p>	<p>Consistent.</p> <p>Employees and patrons of the proposed project could purchase alternative fuel vehicles and utilize these fuels once they are commercially available in the region and local vicinity.</p>
Business, Transportation and Housing	
<p><u>Measures to Improve Transportation Energy Efficiency</u></p> <p>Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools and information that advance cleaner transportation and reduce climate change emissions.</p>	<p>Consistent.</p> <p>The location of the proposed project promotes fuel conservation as it is located close to public transportation, providing employees and patrons of the project an alternative to the single occupancy vehicle.</p>
<p><u>Smart Land Use and Intelligent Transportation Systems (ITS)</u></p> <p>Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors.</p> <p>ITS is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services.</p> <p>Governor Schwarzenegger is finalizing a comprehensive 10-year strategic growth plan with the intent of developing ways to promote, through state investments, incentives and technical assistance, land use, and technology strategies that provide for a prosperous economy, social equity and a quality environment.</p> <p>Smart land use, demand management, ITS, and value pricing are critical elements in this plan for improving mobility and transportation efficiency. Specific strategies include: promoting jobs/housing proximity and transit-oriented development; encouraging high density residential/commercial development along transit/rail corridor; valuing and congestion pricing; implementing intelligent transportation systems, traveler information/traffic control, incident management; accelerating the development of broadband infrastructure; and comprehensive, integrated, multimodal/intermodal transportation planning.</p>	<p>Consistent.</p> <p>The proposed project is located near a number of public transportation services, including the Golden Gate Transit bus system and the Tiburon Ferry, thereby reducing the number of vehicles miles traveled.</p>

**Table IV.C-13
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies**

Strategy	Project Consistency
Department of Food and Agriculture	
<u>Conservation Tillage/Cover Crops</u> Conservation tillage and cover crops practices are used to improve soil tilt and water use efficiency, and to reduce tillage requirements, labor, fuel, and fertilizer requirements.	Not applicable. The proposed project would not include any elements of agriculture.
<u>Enteric Fermentation</u> Cattle emit methane from digestion processes. Changes in diet could result in a reduction in emissions.	Not applicable. The proposed project would not include any elements of agriculture.
State and Consumer Services Agency	
<u>Green Buildings Initiative</u> Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. The Executive Order and related action plan spell out specific actions state agencies are to take with state-owned and -leased buildings. The order and plan also discuss various strategies and incentives to encourage private building owners and operators to achieve the 20 percent target.	Consistent. As discussed previously, the proposed project would be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development.
Public Utilities Commission (PUC)	
<u>Accelerated Renewable Portfolio Standard</u> The Governor has set a goal of achieving 33 percent renewable in the State's resource mix by 2020. The joint PUC/Energy Commission September 2005 Energy Action Plan II (EAP II) adopts the 33 percent goal.	Not applicable. While this strategy is not applicable, the proposed project would not preclude the implementation of this strategy by municipal utility providers.
<u>California Solar Initiative</u> The solar initiative includes installation of 1 million solar roofs or an equivalent 3,000 MW by 2017 on homes and businesses, increased use of solar thermal systems to offset the increasing demand for natural gas, use of advanced metering in solar applications, and creation of a funding source that can provide rebates over 10 years through a declining incentive schedule.	Not applicable. The proposed project would not preclude the implementation of this strategy. In addition, although solar roofs are not proposed as part of the proposed project, the design of the new building structures would not preclude the installation and use of solar equipment in the future if they become cost effective from a purchase and maintenance standpoint of the property owners.
<u>Investor-Owned Utility Programs</u> These strategies include energy efficiency programs, combined heat and power initiative, and electricity sector carbon policy for investor owned utilities.	Not applicable. While this strategy is not applicable, the project would not preclude the implementation of this strategy by investor owned utility providers.

Table IV.C-13
Project Consistency with 2006 CAT Report Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Sources: California Environmental Protection Agency, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006; Christopher A. Joseph & Associates, March 2010.	

Table IV.C-14
Project Consistency with ARB Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures

Measure	Project Consistency
California Air Resources Board	
<u>California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions</u> Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	Not applicable. While this measure is not specifically applicable to the proposed project, the proposed project would not preclude the implementation of this measure by ARB.
<u>California Light-Duty Vehicle Greenhouse Gas Standards</u> Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Consistent. The vehicles that travel to and from the project site on public roadways would be in compliance with ARB vehicle standards that are in effect at the time of vehicle purchase.
<u>Energy Efficiency</u> Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	Consistent. The proposed project would be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development.
<u>Renewables Portfolio Standard</u> Achieve 33 percent renewable energy mix statewide.	Not applicable. While this measure is not applicable, the proposed project would not preclude the implementation of this measure by municipal utility providers.

Table IV.C-14
Project Consistency with ARB Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures

Measure	Project Consistency
<u>Low Carbon Fuel Standard</u> Develop and adopt the Low Carbon Fuel Standard.	Consistent. Employees and patrons of the proposed project could purchase low carbon fuel once they are commercially available in the region and local vicinity.
<u>Regional Transportation-Related Greenhouse Gas Targets</u> Develop regional greenhouse gas emissions reduction targets for passenger vehicles.	Consistent. The passenger vehicles that travel to and from the project site on public roadways would be subject to all applicable ARB efficiency standards that are in effect at the time of vehicle manufacture.
<u>Vehicle Efficiency Measures</u> Implement light-duty vehicle efficiency measures.	Consistent. The light-duty vehicles that travel to and from the project site on public roadways would be subject to all applicable ARB efficiency standards that are in effect at the time of vehicle manufacture.
<u>Goods Movement</u> Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	Not applicable. While this measure is not applicable, the project would not preclude the implementation of this measure by ARB.
<u>Million Solar Roofs Program</u> Install 3,000 MW of solar-electric capacity under California's existing solar programs.	Not applicable. The proposed project would not preclude the implementation of this strategy.
<u>Medium/Heavy-Duty Vehicles</u> Adopt medium and heavy-duty vehicle efficiency measures.	Consistent. The medium and heavy-duty vehicles that travel to and from the project site on public roadways would be subject to all applicable ARB efficiency standards that are in effect at the time of vehicle manufacture.
<u>Industrial Emissions</u> Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	Not applicable. The proposed project is not an industrial facility and would not involve the operation of industrial processes.

Table IV.C-14
Project Consistency with ARB Scoping Plan Recommended Greenhouse Gas Emission Reduction Measures

Measure	Project Consistency
<u>High Speed Rail</u> Support implementation of a high speed rail system.	Not applicable. While this measure is not applicable, the proposed project would not preclude the implementation of this measure by the State.
<u>Green Building Strategy</u> Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The proposed project would be required to be constructed in compliance with the standards of Title 24 that are in effect at the time of development..
<u>High Global Warming Potential Gases</u> Adopt measures to reduce high global warming potential gases.	Not applicable. While this measure is not applicable, the proposed project would not preclude the implementation of this measure by the State.
<u>Recycling and Waste</u> Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	Consistent. The proposed project would comply with the requirements of AB 939. The proposed project would also be subject to all applicable State and Town requirements for solid waste reduction as they change in the future.
<u>Sustainable Forests</u> Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	Not applicable. The proposed project is not located within or near a forest.
<u>Water</u> Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. The project would comply with measures mandated by the local water agency to reduce water use as well as wastewater generation.
<u>Agriculture</u> In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	Not applicable. The proposed project would not include any elements of agriculture.
<i>Sources: Air Resources Board, Climate Change Proposed Scoping Plan, October 2008; Christopher A. Joseph & Associates, March 2010.</i>	

CUMULATIVE IMPACTS

According to the *BAAQMD CEQA Guidelines*, any project that would individually have a significant air quality impact would also have a significant cumulative air quality impact. Since the proposed project

would conflict with the applicable air quality plan, the cumulative air quality impacts are also considered *significant and unavoidable*.

IV. ENVIRONMENTAL IMPACT ANALYSIS

D. BIOLOGICAL RESOURCES

INTRODUCTION

This section of the Draft Environmental Impact Report (DEIR) provides a description of the biological resources on the proposed project site, including the vegetation communities, wildlife, special status species, sensitive natural communities; a discussion of the regulations that serve to protect sensitive resources; an assessment of the potential impacts of the proposed project; and recommendations to minimize and mitigate potentially significant impacts on biological resources.

Preparation of this section used data from various sources. These sources are summarized in the Backgrounds and Methods section below.

ENVIRONMENTAL SETTING

Regional Setting

As previously discussed in Section III (Project Description) of this DEIR, the project site is located in the San Francisco Bay Area within the southern portion of the County of Marin (County) in the Town of Tiburon (Town) (see Figures III-1 and III-2). The Town of Tiburon is located on a peninsula which extends from southeastern Marin County into San Francisco Bay, approximately seven miles north of the City of San Francisco. Regional access to Tiburon is by U.S. Highway 101, which is approximately 3.5 miles northwest of the project site. U.S. Highway 101 connects to San Francisco to the south and San Rafael and Sonoma County to the north.

The project site is located near the western shore of the San Francisco Bay in the southern part of the Town. The project site is bounded by the Railroad Marsh to the northeast, Mar West Street and commercial and residential uses to the northwest, Tiburon Boulevard to the southwest, and Tiburon Town Hall and associated parking to the southeast. The Point Tiburon Marsh Condominiums are located approximately 250 feet northeast of the project site.

Local Setting

The project site is located at 1501 and 1505 Tiburon Boulevard on portions of five assessor parcels near the intersection of Tiburon Boulevard with Mar West Street (refer to a breakdown of parcels in Section III). As shown in Figure III-1, the approximately 2.35 acre project site is currently developed with the Belvedere-Tiburon Library and Town Hall parking areas, Zelinsky Park, and the existing Belvedere-Tiburon Library building. Zelinsky Park, portions of which were installed and improved in 2001, includes an irrigated turf area, paved pathway, trees and groundcover, benches, and a commemorative photo display dedicated to the Zelinsky family. The existing Library building was completed in 1997.

The topography of the site ranges from generally level near the library building, Zelinsky Park and the parking area to gently sloping towards Railroad Marsh. From approximately 1884 until 1984, the northern part of the project site was part of the Northwestern Pacific Railroad Yard. Railroad Marsh is a Freshwater Marsh, cut off from tidal action in the 1880's by construction of the Northwestern Pacific Railroad (Davoren and Ellman 1980). The railroad track crossed the property in the approximate vicinity of what is now the paved pathway. The track was removed in about 1968 and the land was dedicated to the Town of Tiburon in 1984. The southern portion of the project site was dedicated to the Town of Tiburon in a series of dedications made by the Zelinsky family in the 1980s and 1990s. The Town of Tiburon turned over a portion of the land donated by the Zelinsky family to the Library Agency in the 1990s.

The southwesterly half of the project site is located within a 100-year flood zone according to the most recent FEMA flood maps.

REGULATORY SETTING

Federal

Federal Endangered Species Act

The FESA of 1973, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under the FESA. The FESA has four major components: provisions for listing species, requirements for consultation with the USFWS and the National Marine Fisheries Service (NOAA Fisheries), prohibitions against "taking" of listed species, and provisions for permits that allow incidental "take." The FESA also discusses recovery plans and the designation of critical habitat for listed species. Both the USFWS and the NOAA Fisheries share the responsibility for administration of the FESA. During the CEQA review process, each agency is given the opportunity to comment on the potential of the proposed project to affect listed plants and animals.

Sensitive Species

The United States Forest Service designates plant and animal species identified by a regional forester that are not listed or proposed for listing under FESA for which population viability is a concern, as evidenced by significant current or predicted downward trend in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution, as "sensitive." Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

Clean Water Act Section 404 & 401

ACE and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and

include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The lateral limits of jurisdiction in those waters may be divided into three categories – territorial seas, tidal waters, and non-tidal waters – and is determined depending on which type of waters is present (Title 33 CFR Part 328.4(a), (b), (c)). Activities in waters of the United States regulated under Section 404 include fill for development, water resource projects (such as dams and levees), infrastructure developments (such as highways and airports) and mining projects. Section 404 of the CWA requires a federal license or permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities).

Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification from the state in which the discharge originates or would originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the affected waters at the point where the discharge originates or would originate, that the discharge will comply with the applicable effluent limitations and water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility. The responsibility for the protection of water quality in California rests with the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs).

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. Sections 661-667e, March 10, 1994, as amended 1946, 1958, 1978, and 1995) requires that whenever waters or channel of a stream or other body of water are proposed or authorized to be modified by a public or private agency under a federal license or permit, the federal agency must first consult with the USFWS and/or NOAA Fisheries and with the head of the agency exercising administration over the wildlife resources of the state where construction will occur (in this case the CDFG), with a view to conservation of birds, fish, mammals and all other classes of wild animals and all types of aquatic and land vegetation upon which wildlife is dependent.

The Migratory Bird Treaty Act & Bald and Golden Eagle Protection Act

The Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations (CFR) Part 10, prohibits taking, killing, possessing, transporting, and importing of migratory birds, parts of migratory birds, and their eggs and nests, except when specifically authorized by the Department of the Interior. As used in the act, the term “take” is defined as meaning, “to pursue, hunt, capture, collect, kill or attempt to pursue, hunt, shoot, capture, collect or kill, unless the context otherwise requires.” With a few exceptions, most birds are considered migratory under the MBTA. Disturbance that causes nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend would be in violation of the MBTA.

The Bald Eagle Protection Act (16 U.S.C. 668) was passed in 1940 to protect bald eagles and was later amended to include golden eagles. Under the act it is unlawful to import, export, take, sell, purchase, or

barter any bald eagle or golden eagle, their parts, products, nests, or eggs. Take includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing eagles.

State

California Endangered Species Act

The State of California enacted similar laws to the FESA -- the California Native Plant Protection Act (NPPA) in 1977 and the California Endangered Species Act (CESA) in 1984. The CESA expanded upon the original NPPA and enhanced legal protection for plants, but the NPPA remains part of the California Fish and Game Code. To align with the FESA, CESA created the categories of “threatened” and “endangered” species. It converted all “rare” animals into the CESA as threatened species, but did not do so for rare plants. Thus, these laws provide the legal framework for protection of California-listed rare, threatened, and endangered plant and animal species. The CDFG implements NPPA and CESA, and its Wildlife and Habitat Data Analysis Branch maintains the CNDDDB, a computerized inventory of information on the general location and status of California’s rarest plants, animals, and natural communities. During the CEQA review process, the CDFG is given the opportunity to comment on the potential of the proposed project to affect listed plants and animals.

Fully Protected Species & Species of Special Concern

The classification of “fully protected” was the CDFG’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (fish at §5515, amphibians and reptiles at §5050, birds at §3511, and mammals at §4700) dealing with “fully protected” species state that these species “...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species,” although take may be authorized for necessary scientific research. This language makes the “fully protected” designation the strongest and most restrictive regarding the “take” of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFG to authorize take resulting from recovery activities for state-listed species.

Species of special concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFG because they are declining at a rate that could result in listing or because they historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFG, land managers, consulting biologist, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under the CEQA during project review.

California Fish and Game Code Sections 3503 & 3513

According to Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except English sparrows (*Passer domesticus*) and European starlings (*Sturnus vulgaris*). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the MTBA, prohibiting the take or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by the CDFG.

California Native Plant Society

The CNPS publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California in both hard copy and electronic version. The Inventory assigns plants to the following categories:

- 1A – Presumed extinct in California
- 1B – Rare, threatened, or endangered in California and elsewhere
- 2 – Rare, threatened, or endangered in California, but more common elsewhere
- 3 – Plants for which more information is needed
- 4 – Plants of limited distribution

Additional endangerment codes are assigned to each taxa as follows:

- 1 – Seriously endangered in California (over 80 percent of occurrences threatened/high degree of immediacy of threat).
- 2 – Fairly endangered in California (20-80 percent occurrences threatened).
- 3 – Not very endangered in California (<20 percent of occurrences threatened or no current threats known).

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing, and are given special consideration under CEQA during project review. Although plants on List 3 and 4 have little or no protection under CEQA, they are usually included in the project review for completeness.

Porter-Cologne Water Quality Control Act

Waters of the State are defined by the Porter-Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The RWQCB protects all waters in its regulatory scope, but has special responsibility for isolated wetlands and headwaters. These waterbodies have high resource value, are vulnerable to filling, and may not be regulated by other programs, such as Section 404 of the CWA. Waters of the State are regulated by the RWQCB under the State Water Quality

Certification Program, which regulates discharges of dredged and fill material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. projects that require an ACE permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, but does involve activities that may result in a discharge of harmful substances to waters of the State, the RWQCB has the option to regulate such activities under its State authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements.

California Fish and Game Code Section 1600

Streams, lakes, and riparian vegetation as habitat for fish and other wildlife species, are subject to jurisdiction by the CDFG under Sections 1600-1616 of the California Fish and Game Code. A 1602 Lake and Streambed Alteration Agreement is generally required for any activity that will do one or more of the following: 1) substantially obstruct or divert the natural flow of a river, stream, or lake; 2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or 3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. The term “stream,” which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Riparian is defined as, “on, or pertaining to, the banks of a stream;” therefore, riparian vegetation is defined as, “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself.” Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from the CDFG.

California Oak Woodland Statute

In September 2004, State Bill 1334 was passed and added to the State Public Resources Code as Statute 21083.4, requiring all California counties to determine in their CEQA documents whether a project in its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. The California Fish and Game Code (Section 1361) defines oak woodland habitat as “an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover.”

Sensitive Vegetation Communities

Sensitive vegetation communities are natural communities and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources have been defined by federal, state, and local conservation plans, policies or regulations. The CDFG ranks sensitive communities as “threatened” or “very threatened” and keeps records of their occurrences in its CNDDDB.

Sensitive vegetation communities are also identified by CDFG on its List of California Natural Communities Recognized by the CNDDDB. Impacts to sensitive natural communities and habitats identified in local or regional plans, policies, regulations or by federal or state agencies must be considered and evaluated under the CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G).

Regional/Local

Town of Tiburon General Plan (Tiburon 2020)

Tiburon 2020 sets forth policy guidelines for decision making on issues related to development and conservation in the Town of Tiburon. Section IV.F (Land Use and Planning) assesses the consistency of the proposed project with the relevant goals and policies of Tiburon 2020. Section IV.F (Land Use and Planning) assesses the consistency of the proposed project with the relevant goals and policies of Tiburon 2020 related to biological resources, specifically Railroad Marsh and its associated open water, wetland and riparian habitat.

Tiburon Municipal Code

Guide to Policies for Trees Located on Town Property

The Guide was prepared in 2003 by the Town of Tiburon as a guide to the Town's policies and procedures involving trees. The Town of Tiburon adopted the following policies with respect to trees and shrubs on Town property, including but not limited to parks, open spaces, and public street rights-of-way (including medians and islands).

- The Town's overarching policy is that trees and shrubs on Town property are resources that will not generally be removed or substantially altered without good cause.
- The Town will remove any tree or shrub that constitutes a public safety hazard when the hazard cannot be corrected or eliminated by thinning, trimming, or pruning.
- The Town will remove any tree or shrub that is diseased or otherwise afflicted and threatens to pass its affliction to other trees or shrubs.
- The Town will remove any tree or shrub that is damaging sewers or other utilities serving public or private property; or breaking up pavement, foundations or fences; when there is no reasonable lesser remedy such as removal of an offending root or limb. However, if the tree or shrub is located within the "Sidewalk Area", repair of damage is the responsibility of the adjacent fronting property owner, in accordance with Chapter 24 of the Tiburon Municipal Code. Issuance of an Encroachment Permit from the Town is required for all work within the Sidewalk Area.
- When pruning or trimming of a tree or shrub is sought by private parties or other public agencies for reasons other than those set forth above, that party may apply for, and the Director of Public Works (or his designee) may issue, an Encroachment Permit provided that the work will not

damage the health, or significantly alter the appearance of, the tree. Any Encroachment Permit shall authorize the work to be performed by a Town-approved contractor, and the work shall be performed under the direct supervision of the Director of Public Works (or his designee). Town Staff does not perform ornamental trimming or pruning on behalf of private parties.

- If a person applies for a permit to remove or alter a tree or shrub located on the “Sidewalk Area” of another person’s property, that property owner must be consulted during the process, and their reaction to the application will be given great weight by the Town in rendering a decision on the application.
- Any tree work that would significantly alter the appearance of a tree, or damage the health of a tree, requires prior issuance of a Tree Permit from the Community Development Department. The Tree Permit must be obtained prior to issuance of an Encroachment Permit.

The Guide also includes Criteria for Town Review of Applications Involving Trees and Shrubs on Town of Tiburon Property; a Sidewalk Area Diagram; and a Procedure for Tree Alteration, Removal, or Planting in the Town of Tiburon.

BACKGROUND AND METHODS

The analysis of potential biological resources impacts associated with the proposed project involved review of available background information, including (but not limited to) resource reports completed for the original Library Expansion Project as well as recent studies conducted on the project site. In addition, a reconnaissance level field survey and a Preliminary Jurisdictional Wetland Delineation was conducted by a senior biologist with Christopher A. Joseph & Associates (CAJA).

Prior to conducting field surveys, CAJA’s biologist reviewed the resource reports completed for the previous project to verify the adequacy, completeness, and accuracy of these reports for their use in this section of the DEIR. These reports included:

CSW-ST, 2008, *Town of Tiburon storm drainage Master Plan, Tiburon, California*. Consulting report prepared by CSW/Stuber-Stroeh Engineering Group, Inc., 110p.

Foreman, S., 1995, *Proposed Bevedere-Tiburon Library Site Biological Resources Evaluation*. Prepared by Resource Management International, Inc., 3p.

Jensen, P., 2004, *Initial Study for the Tiburon Peninsula Club (TPC) Expansion Conditional Use Permit, 1600 Mar West Street, Tiburon*. Prepared for the Town of Tiburon, 116p.

LSA Associates, Inc., 2004, *Biological Resources of the Tiburon Peninsula Club Expansion Site, Final Report*. Prepared for David Marks, Nova Partners, Inc., 16p.

Martin, J. A., 2006, *Delineation of Potential Waters of the United States Tiburon Library Expansion Project site and Request for Disclaimer*, Prepared for Belvedere-Tiburon Library Agency, 7p + appendices and 3p letter to USACOE.

Tillson-Bliss and Associates, 1982, *Hydrology Studies for SP-Tiburon Site, Tiburon Marsh Flood Plain and Storm Drain System*, 36p.

Town of Tiburon, 2000, *Zelinsky Park/Railroad Marsh Floodplain Landscape Project Initial Study*, 38p.

Town of Tiburon, Skewes-Cox, A., Environmental Collaborative, Grasseti Environmental Consulting, Miller Pacific Engineering Group, and W-Trans, 2004, *Belvedere-Tiburon Library Proposed Expansion General Plan Amendment and Rezoning Initial Study*. Prepared for the Belvedere-Tiburon Library Agency, 100p.

Town of Tiburon, *Town of Tiburon General Plan (Tiburon 2020)*, September 2005

Town of Tiburon, *Town of Tiburon Guide to Policies for Trees Located on Town Property*, January 2003

WRA, Inc., 2001, *Railroad Marsh Management Plan, Tiburon, California*, Prepared for the Town of Tiburon, 32p.

In addition to the reports listed above, CAJA's biologist reviewed:

California Department of Fish and Game (CDFG) 2009 California Natural Diversity Database (CNDDDB);

California Native Plant Society (CNPS) 2009 Inventory of Rare and Endangered Plants;

U.S. Fish and Wildlife Service (USFWS) December 1, 2009 Federal Endangered and threatened Species that Occur in or May Be Affected by Project on the San Quentin, San Rafael, Point Bonita, and San Francisco North USGS 7.5 Minute Quadrangles;

Natural Resources Conservation Service (NRCS), United States Department of Agriculture (USDA) Soil Conservation Service (SCS) Soil Maps for Marin County;

USFWS 2009 Wetlands Geodatabase. Division of Habitat and Resource Conservation National Wetlands Inventory (NWI) maps;

Other available site plans, aerials and project plan figures were also reviewed by CAJA biologists. The methods used to assess the biological resources on the site are described in more detail below.

Vegetation Communities & Wildlife Habitats

The project site is currently developed with the Belvedere-Tiburon Library and Town Hall parking areas, Zelinsky Park, and the existing Belvedere-Tiburon Library building. Zelinsky Park includes an irrigated

turf area, paved pathways, trees and groundcover all located on an elevated landscape area several feet above natural grade. Annual and non-native annual grassland and weed species dominate the remainder of the project site north of the existing developed portions of the site and flanking Zelinsky Park. These areas are maintained (mowed) regularly and consist of historically disturbed and compacted soils. Railroad Marsh is adjacent to the mowed grass areas and Zelinsky Park, immediately north of the proposed expansion project. Marsh vegetation and adjacent wetlands roughly correspond to the 96' contour in the vicinity of the project site and is dominated by willow (*Salix sp.*) with cattail (*Typha sp.*), French broom (*Genista monspessulana*), acacia trees (*Acacia sp.*), blackberry (*Rubus sp.*), pampas grass (*Cortaderia selloana*) and poison hemlock (*Conium maculatum*).

Special status Species

For the purposes of this analysis, special status species include those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the FESA; those listed or proposed for listing as rare, threatened, or endangered by CDFG under the CESA; plants occurring on List 1A, List 1B, List 2, List 3 and List 4 of the CNPS Inventory; and animals designated as “species of special concern” or “fully protected” by CDFG.

The potential occurrence of special status species on the proposed project site was evaluated by first developing a list of special status plants and animals that are known to or have the potential to occur in the vicinity of the project site based on a search of the CNDDDB records within a five-mile radius of the site and the CNPS Electronic Inventory records, included on the Palo Alto (428B) U.S. Geological Service (USGS) 7.5-Minute Quadrangle, and review of the USFWS list of Federal Endangered and Threatened Species that Occur in or May be Affected by Projects on the Palo Alto (428B) USGS 7.5 Minute Quad. Each species was then evaluated for its potential to occur on the site during the reconnaissance-level field surveys according to the following criteria:

- (1) Not Present. Species listed as Not Present on the project site are those species for which:

No suitable habitat occurs on the project site. The species has no likelihood for utilizing any portion of the site due to lack of habitat requirements (e.g., foraging, breeding, cover, substrate, elevation, hydrology, plant community, disturbance regime, etc.).

The site has been surveyed during the proper time of year with negative results for the species.

- (2) Low Potential to Occur. Species listed as having a Low Potential to Occur on the project site are those species for which:

There are no known records of occurrence in the vicinity of the site; and/or

The majority of the habitat on the project site is unsuitable or of very poor quality for the species;

Required habitat components are not present on the site.

- (3) Moderate Potential to Occur. Species listed as having a Moderate Potential to Occur on the project site are those species for which:

There are known records of occurrence in the vicinity of the site; and/or

Some of the required habitat components are available on the site, but the site lacks some critical components required by the species.

- (4) Likely to Occur. Species listed as Likely to Occur on the project site are those species for which:

There are known records of occurrence in the vicinity of the site (there are many records and/or records in close proximity); and/or

Habitat components are available on the site but no record of the species utilizing the project site exists.

- (5) Present. Species listed as Present on the project site are those species for which:

The species was observed or is otherwise known to occur on the project site.

Table IV.D-1 and Table IV.D-2 presents the list of special status plants and animals that are known to or have the potential to occur in the vicinity of the proposed project site, their habitat requirements, and a rating of potential for occurrence on the site. Although species restricted to marine habitats are known to or have the potential to occur in Marin County, these species were not included in Table IV.D-2, as the project site does not support habitat used by these species. Also, the words “nesting”, “nesting colony”, “rookery site” or “wintering” following the sensitivity/regulatory status of the bird species in Table IV.D-2 indicates the regulatory status only while the species is nesting or wintering.

Sensitive Natural Communities

Sensitive natural communities are identified by federal, state, and local agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitats, and/or provide high biological diversity. The potential occurrence of sensitive natural communities on the proposed project site was evaluated by first developing a list of sensitive habitats that are known to or have the potential to occur in the vicinity of the project site based on a search of the CNDDDB records within a five-mile radius of the site. The sensitive natural communities known to occur in the vicinity of the project site were then compared to the vegetation communities identified on the site to determine the nature and extent of potential sensitive communities to occur on the project site.

Jurisdictional Waters and Wetlands

Dredge or fill of wetlands or waters of the state are regulated under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act in California. The appropriate Regional Water Quality Control Board (RWQCB) regulates compliance with both of these laws for the protection of water quality. Dredge or fill of navigable waters of the U.S. are regulated under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act by the U.S. Army Corps of Engineers (USACE). Based on a site visit and background review of pertinent information, jurisdictional wetlands are known to occur directly adjacent to the project site.

EXISTING CONDITIONS

The following sections provide descriptions of the vegetation communities and wildlife habitats, special status species and sensitive natural communities, and jurisdictional waters and wetlands present or potentially present on the proposed project site.

Vegetation Communities & Wildlife Habitats

The entire Belvedere-Tiburon Library Expansion project site is landscaped and consists of landscaped areas, turf areas, and native and non-native tree species. However, Railroad Marsh which lies directly north and adjacent to the Project Expansion Area contains sensitive vegetation communities, and habitat with the potential to support special status plant and/or animal species.

Sensitive vegetation communities and wildlife habitats identified to occur in the vicinity of the site as well as the potential for the site to support special status species are described in more detail below.

Special status Species

As discussed above in the Background and Methods section, the special status plants and animals evaluated for their potential to occur on the proposed project site are listed below in Table IV.D-1 and Table IV.D-2, respectively. Table IV.D-3 represents Sensitive Vegetation Communities evaluated for their potential to exist on the proposed project site. The plants, animals, and sensitive vegetation communities classified as having a Low Potential to Occur or Not Present are not discussed further in this analysis because these species are not likely to occur on or adjacent to the project site due to the fact that the general habitat and/or micro-habitat requirements for the species are not present, the species distribution does not include the project site, or the species or community was not detected during appropriately timed field surveys.

Table IV.D – 1
Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State			
Napa false indigo <i>Amorpha californica</i> var. <i>napensis</i>			List 1B.2 Chaparral, cismontane woodland, and openings in broadleaved upland forest.	120-2,000 m S (d) April-July	Not Present. No suitable habitat on or adjacent to subject site.
Waldo rock cress <i>Arabis aculeolata</i>			List 2.2 Broadleaved upland forest and lower and upper montane coniferous forests; associated with serpentinite soils.	410-1,800 m PH April-June	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Franciscan manzanita <i>Arctostaphylos hookeri</i> ssp. <i>franciscana</i>			List 1A Coastal scrub; associated with serpentinite soils.	60-300 m S (e) February-April	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Mt. Tamalpais manzanita <i>Arctostaphylos hookeri</i> ssp. <i>montana</i>			List 1B.3 Chaparral and valley and foothill grassland; associated with serpentinite, rocky soils.	160-760 m S (e) February-April	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Presidio manzanita <i>Arctostaphylos hookeri</i> ssp. <i>ravenii</i>	FE	CE	List 1B.1 Chaparral, coastal prairie, and coastal scrub; associated with serpentinite outcrops.	46-215 m S (e) February-March	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Marin manzanita <i>Arctostaphylos virgata</i>			List 1B.2 Broadleaved upland forest, closed-cone coniferous forest, chaparral, and North Coast coniferous forest; associated with sandstone or granitic soils.	60-700 m S (e) January-March	Not Present. No suitable habitat on or adjacent to subject site. No sandstone or granitic soils
marsh sandwort	FE	CE	List 1B.1 Openings in sandy marshes	3-170 m	Not Present. No suitable

Table IV.D – 1
Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status			Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State	CNPS			
<i>Arenaria paludicola</i>				and freshwater and brackish swamps.	PH (s) May-August	habitat on or adjacent to subject site.
alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>			List 1B.2	Playas, adobe clay valley and foothill grassland, and vernal pools; associated with alkaline soils.	1-60 m AH March-June	Not Present. No suitable habitat on or adjacent to subject site. No alkaline soils
small groundcone <i>Boschniakia hookeri</i>			List 2.3	North Coast coniferous forest.	90-885 m PH (r) April-August	Not Present. No suitable habitat on or adjacent to subject site.
Tiburon mariposa lily <i>Calochortus tiburonensis</i>	FT	CT	List 1B.1	Valley and foothill grasslands; associated with serpentine soils.	50-150 m PH (b) March-June	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
bristly sedge <i>Carex comosa</i>			List 2.1	Coastal prairie, margins of marshes and swamps, and valley and foothill grassland.	0-625 m PH (r) May-September	Not Present. No suitable habitat on or adjacent to subject site.
Tiburon paintbrush <i>Castilleja affinis</i> ssp. <i>neglecta</i>	FE	CT	List 1B.2	Valley and foothill grassland; associated with serpentine soils.	60-400 m PH April-June	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
San Francisco Bay spineflower <i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>			List 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie, and coastal scrub; associated with sandy soils.	3-215 m AH April-July	Not Present. No suitable habitat on or adjacent to subject site. No sandy soils
Sonoma spineflower <i>Chorizanthe valida</i>	FE	CE	List 1B.1	Coastal prairie; associated with sandy soils.	10-305 m AH	Not Present. No suitable habitat on or adjacent to

Table IV.D – 1
Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status			Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State	CNPS			
Franciscan thistle <i>Cirsium andrewsii</i>			List 1B.2	Broadleafed upland forest, coastal bluff scrub, coastal prairie, and coastal scrub; associated with mesic, and sometimes serpentine, soils.	June-August 0-150 m PH March-July	subject site. No sandy soils Not Present. No suitable habitat on or adjacent to subject site. No mesic and/or serpentine soils
Mt. Tamalpais thistle <i>Cirsium hydrophilum</i> var. <i>vaseyi</i>			List 1B.2	Broadleafed upland forest, chaparral, and meadows and seeps; associated with serpentine seeps.	240-620 m PH May-August	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Presidio clarkia <i>Clarkia franciscana</i>	FE	CE	List 1B.1	Coastal scrub and serpentine valley and foothill grassland.	25-335 m AH May-July	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
round-headed Chinese-houses <i>Collinsia corymbosa</i>			List 1B.2	Coastal dunes.	0-20 m AH April-June	Not Present. No suitable habitat on or adjacent to subject site. No Dunes
San Francisco collinsia <i>Collinsia multicolor</i>			List 1B.2	Closed-cone coniferous forest and coastal scrub; associated sometimes with serpentine soils.	30-250 m AH March-May	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Point Reyes bird's-beak <i>Cordylanthus maritimus</i> ssp. <i>palustris</i>			List 1B.2	Coastal salt marshes and swamps.	0-10 m AH June-October	Not Present. No suitable habitat on or adjacent to subject site. No salt marsh/swamp.
Tiburon buckwheat			List 1B.2	Chaparral, cismontane	0-700 m	Not Present. No suitable

Table IV.D – 1
Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status			Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State	CNPS			
<i>Eriogonum luteolum</i> var. <i>caninum</i>				woodland, coastal prairie, and valley and foothill grassland; associated with serpentinite, sandy to gravelly, soils.	AH May-September	habitat on or adjacent to subject site. No serpentine soils
minute pocket moss <i>Fissidens pauperculus</i>			List IB.2	North Coast coniferous forest; associated with damp coastal soils.	10-1,024 m M	Not Present. No suitable habitat on or adjacent to subject site.
Marin checker lily <i>Fritillaria lanceolata</i> var. <i>tristulis</i>			List IB.1	Coastal bluff scrub, coastal prairie, and coastal scrub.	15-150 m PH (b) February-May	Not Present. No suitable habitat on or adjacent to subject site.
fragrant fritillary <i>Fritillaria liliacea</i>			List IB.2	Cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland. Often associated with serpentinite soils.	3-410 m PH (b) February-April	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
blue coast gilia <i>Gilia capitata</i> ssp. <i>chamissonis</i>			List IB.1	Coastal dunes and coastal scrub	2-200 m AH April-June	Not Present. No suitable habitat on or adjacent to subject site. No dunes.
woolly-headed gilia <i>Gilia capitata</i> ssp. <i>tomentosa</i>			List IB.1	Coastal bluff scrub; associated with rocky outcrops.	15-155 m AH May-July	Not Present. No suitable habitat on or adjacent to subject site. No rock outcrops.
dark-eyed gilia <i>Gilia millefoliata</i>			List IB.2	Coastal dunes.	2-30 m AH April-July	Not Present. No suitable habitat on or adjacent to subject site. No dunes.
San Francisco gumpplant			List IB.2	Coastal bluff scrub, coastal	15-400 m	Not Present. No suitable

Table IV.D – 1
Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status			Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State	CNPS			
<i>Grindelia hirsutula</i> var. <i>maritima</i>				scrub, and valley and foothill grassland; associated with sandy or serpentine soils.	PH June-September	habitat on or adjacent to subject site. No sandy or serpentine soils.
Diablo helianthella <i>Helianthella castanea</i>			List 1B.2	Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland.	60-1,300 m PH March-June	Not Present. No suitable habitat on or adjacent to subject site.
pale yellow hayfield tarplant <i>Hemizonia congesta</i> ssp. <i>congesta</i>			List 1B.2	Valley and foothill grassland; associated sometimes with roadsides.	20-560 m AH April-November	Not Present. No suitable habitat on or adjacent to subject site.
Marin western flax <i>Hesperolinon congestum</i>	FT	CT	List 1B.1	Chaparral and valley and foothill grassland; associated with serpentine soils.	5-370 m AH April-July	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Santa Cruz tarplant <i>Holocarpha macradenia</i>	FT	CE	List 1B.1	Coastal prairie, coastal scrub, and valley and foothill grassland. Often associated with clay, sandy soils.	10-220 m AH June-October	Not Present. No suitable habitat on or adjacent to subject site. No clay or sandy soils
Kellogg's horkelia <i>Horkelia cuneata</i> ssp. <i>sericea</i>			List 1B.1	Closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub; associated with openings and sandy or gravelly soils.	10-200 m PH April-September	Not Present. No suitable habitat on or adjacent to subject site. No sandy or gravelly soils
thin-lobed horkelia <i>Horkelia tenuiloba</i>			List 1B.2	Broadleaved upland forest, chaparral, and valley and	50-500 m PH	Not Present. No suitable habitat on or adjacent to

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Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status			Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State	CNPS			
beach layia <i>Layia carnosa</i>	FE	CE	List 1B.1	foothill grassland; associated with mesic openings and sandy soils. Coastal dunes and coastal scrub; associated with sandy soils.	May-July 0-60 m AH March-July	subject site. No mesic openings or sandy soils. Not Present. No suitable habitat on or adjacent to subject site. No dunes or sandy soils.
rose leptosiphon <i>Leptosiphon rosaceus</i>			List 1B.1	Coastal bluff scrub.	0-100 m AH April-July	Not Present. No suitable habitat on or adjacent to subject site.
San Francisco lessingia <i>Lessingia germanorum</i>	FE	CE	List 1B.1	Coastal scrub; associated with remnant dunes.	25-110 m AH July-November	Not Present. No suitable habitat on or adjacent to subject site. No dunes.
woolly-headed lessingia <i>Lessingia hololeuca</i>			List 3	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, and valley and foothill grassland; associated with clay and serpentine soils.	15-305 m AH June-October	Not Present. No suitable habitat on or adjacent to subject site. No clay or serpentine soils on site.
Tamalpais lessingia <i>Lessingia micradenia</i> var. <i>micradenia</i>			List 1B.2	Chaparral and valley and foothill grassland. Usually associated with serpentine soils and often roadsides.	100-500 m AH July-October	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Mt. Diablo cottonweed <i>Micropus amphibolus</i>			List 3.2	Broadleafed upland forest, chaparral, cismontane woodland, and valley and	45-825 m AH March-May	Not Present. No suitable habitat on or adjacent to subject site. No rocky soils

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Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status			Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State	CNPS			
marsh microseris <i>Microseris paludosa</i>			List 1B.2	foothill grassland; associated with rocky soils. Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland.	5-300 m PH April-June	Not Present. No suitable habitat on or adjacent to subject site.
Baker's navarretia <i>Navarretia leucocephala</i> ssp. <i>bakeri</i>			List 1B.1	Mesic cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, and vernal pools.	5-1,740 m AH April-July	Not Present. No suitable habitat on or adjacent to subject site.
Marin County navarretia <i>Navarretia rosulata</i>			List 1B.2	Closed-cone coniferous forest, and chaparral; associated with serpentine and rocky soils.	200-635 m AH May-July	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
white-rayed pentachaeta <i>Pentachaeta bellidiflora</i>	FE	CE	List 1B.1	Cismontane woodland and valley and foothill grassland. Often associated with serpentine soils.	35-620 m AH March-May	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Choris' popcorn-flower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>			List 1B.2	Mesic chaparral, coastal prairie, and coastal scrub.	15-160 m AH March-June	Not Present. No suitable habitat on or adjacent to subject site.
San Francisco popcorn-flower <i>Plagiobothrys diffusus</i>		CE	List 1B.1	Coastal prairie and valley and foothill grassland.	60-360 m AH March-June	Not Present. No suitable habitat on or adjacent to subject site.
hairless popcorn-flower			List 1A	Alkaline meadows and seeps	15-180 m	Not Present. No suitable

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Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status			Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State	CNPS			
<i>Plagiobothrys glaber</i>				and coastal salt marshes and swamps.	AH March-May	habitat on or adjacent to subject site. No alkaline meadows or seeps; no coastal salt marsh or swamps.
North Coast semaphore grass <i>Pleuropogon hooverianus</i>		CT	List IB.1	Open areas in mesic broadleaved upland forest, meadows and seeps, and North Coast coniferous forest.	10-671 m PH (r) April-August	Not Present. No suitable habitat on or adjacent to subject site.
Oregon polemonium <i>Polemonium carneum</i>			List 2.2	Coastal prairie, coastal scrub, and lower montane coniferous forest.	0-1,830 m PH April-September	Not Present. No suitable habitat on or adjacent to subject site.
Marin knotweed <i>Polygonum marinense</i>			List 3.1	Coastal salt or brackish marshes and swamps.	0-10 m AH May-August	Not Present. No suitable habitat on or adjacent to subject site. No salt or brackish marsh habitat.
Tamalpais oak <i>Quercus parvula</i> var. <i>tamalpaisensis</i>			List IB.3	Lower montane coniferous forest.	100-750 m S (e) March-April	Not Present. No suitable habitat on or adjacent to subject site.
adobe sanicle <i>Sanicula maritima</i>		CR	List IB.1	Chaparral, coastal prairie, meadows and seeps, and valley and foothill grassland; associated with clay and serpentinite soils.	30-240 m PH February-March	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Point Reyes checkerbloom <i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>			List IB.2	Freshwater marshes and swamps near the coast.	3-75 m PH (r)	Not Present on site. Moderate potential to occur

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Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status			Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State	CNPS			
San Francisco campion <i>Silene verecunda</i> ssp. <i>verecunda</i>			List 1B.2	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland; associated with sandy soils.	April-September 30-645 m PH March-June	in Railroad Marsh; presence not recorded during appropriately timed surveys. Not Present. No suitable habitat on or adjacent to subject site. No sandy soils.
Santa Cruz microseris <i>Stebbinoseris decipiens</i>			List 1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland; associated with open areas and sometimes serpentine soils.	10-500 m AH April-May	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Tamalpais jewel-flower <i>Streptanthus batrachopus</i>			List 1B.3	Closed-cone coniferous forest and chaparral; associated with serpentine soils.	305-650 m AH April-July	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Mount Tamalpais bristly jewel-flower <i>Streptanthus glandulosus</i> ssp. <i>pulchellus</i>			List 1B.2	Chaparral and valley and foothill grassland; associated with serpentine soils.	150-800 m AH May-July	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
Tiburon jewel-flower <i>Streptanthus niger</i>	FE	CE	List 1B.1	Valley and foothill grassland; associated with serpentine soils.	30-150 m AH May-June	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils

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Special status Plant Species Evaluated for the Potential to Occur Within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Elevation Range, Life Form, Flowering Period	Potential Occurrence on the Project site
	Federal	State			
Suisun Marsh aster <i>Symphotrichum lentum</i>			Brackish and freshwater marshes and swamps.	0-3 m PH (r) May-November	soils Not Present on site. Moderate potential to occur in Railroad Marsh; presence not recorded during appropriately timed surveys.
two-fork clover <i>Trifolium amoenum</i>	FE		Coastal bluff scrub and valley and foothill grassland. Sometimes associated with serpentine soils.	5-415 m AH April-June	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
San Francisco owl's-clover <i>Triphysaria floribunda</i>			Coastal prairie, coastal scrub, and valley and foothill grassland. Usually associated with serpentine soils.	10-160 m AH April-June	Not Present. No suitable habitat on or adjacent to subject site. No serpentine soils
coastal triquetrella <i>Triquetrella californica</i>			Coastal bluff scrub and coastal scrub.	10-100 m M	Not Present. No suitable habitat on site.
STATUS KEY:					
<u>CNPS</u>					
<u>Federal</u>	List 1A: Plants presumed extinct in California.				
FE: Federally-listed Endangered	List 1B: Plants rare and endangered in California and elsewhere.				
FT: Federally-listed Threatened	List 2: Plants rare and endangered in California, but more common elsewhere.				
<u>State</u>	List 3: Taxa about which more information is needed.				
CE: California-listed Endangered	List 4: Plants of limited distribution.				
CT: California-listed Threatened					
CR: California-listed Rare					
LIFE FORM KEY:					
	AH: Annual Herb				
	PH: Perennial Herb				
	PS: Perennial Stem				
	M: Moss				
	S: Shrub				
	(b): bulb				
	(d): deciduous				
	(e): evergreen				
	(s): stoloniferous				
	(r): rhizome				

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Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
INVERTEBRATES				
San Bruno elfin butterfly <i>Callophrys mossii bayensis</i>	FE		Coastal mountains near San Francisco Bay, in the fog-belt of steep north facing slopes that receive little direct sunlight. Found near prolific growths of the larval food plant, stonecrop, which is associated with rocky outcrops that occur at 900 to 1,075 foot elevation. Adult food plants not fully determined; Montara Mountain colonies are suspected to use Montara Mountain manzanita and huckleberry. Found in moist sand near the ocean.	Not Present. No suitable habitat or larval food plant on or in immediate vicinity of site. Site is located well below the known elevation of the species.
sandy beach tiger beetle <i>Cicindela hirticollis grandidata</i>		*		Not Present. No sand/coastal beach habitat on site.
monarch butterfly <i>Danaus plexippus</i>		*	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Low Potential to occur. No suitable roost habitat on or in the immediate vicinity of the site; marginal nectar sources; water present.
bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT		Shallow, serpentine-derived soils in native grasslands supporting larval host plants, dwarf plantain or purple owl's clover.	Not Present. No serpentine soils or native grasslands on or in immediate vicinity of site.
bumblebee scarab beetle <i>Lichnanthe ursina</i>		*	Coastal sand dunes from Sonoma County south to San Mateo County. Usually flies close to sand surface near the crest of the dunes.	Not Present. No sand dunes present on or in immediate vicinity of site.
Tiburon micro-blind harvestman <i>Microcina tiburona</i>		*	Open hilly grassland habitat in areas of serpentine bedrock.	Not Present. No grassland or serpentine habitat on or in immediate vicinity of subject site.

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Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
Mission blue butterfly <i>Plebejus icarioides missionensis</i>	FE		Coastal chaparral and coastal grasslands dominate the vegetation type where colonies are found. Adults do not wander far from lupine, the larval food plant. Adults feed on golden aster, bluedicks, Ithuriel's spear, and coast buckwheat.	Not Present. No coastal chaparral, coastal grassland, larval food plant or adult host plants present on or in the immediate vicinity of the subject site.
robust walker <i>Pomatiopsis binneyi</i>		*	Found in freshwater habitats.	Not Present on site. Moderate potential to occur in Railroad Marsh. No habitat on site but freshwater habitat available in Railroad Marsh.
callippe silverspot butterfly <i>Speyeria callippe callippe</i>	FE		Restricted to the Northern Coastal scrub of the San Francisco Peninsula. Host plants are Johnny jump up and canary violet.	Not Present. No northern coastal scrub habitat on site. No host plants present.
A leaf-cutter bee <i>Trachusa gummifera</i>		*		Low Potential to occur. No habitat requirements known for this species.
California brackishwater snail <i>Tryonia imitator</i>		*	Brackish salt marshes.	Not Present. No brackish salt marsh habitat on site.
Marin hesperian <i>Vespericola marinensis</i>		*	Found in moist spots in coastal brushfield and chaparral vegetation in Marin County.	Not Present. No brushfield or chaparral habitat on site.
FISHES				
tidewater goby <i>Eucyclogobius newberryi</i>	FE	CSC	Brackish shallow lagoons and lower stream reaches where the water is fairly still, but not stagnant. Prefer a sand substrate component for breeding, but also found on rocky, mud, and silt substrates as well. Found in waters with salinity levels from 0 to 42 ppt, temperature levels from	Not Present. No streams on or adjacent to subject site.

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Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
coho salmon - Central California coast ESU <i>Oncorhynchus kisutch</i>	FE	CE (listing limited to coho salmon south of San Francisco Bay) CSC	8 to 25 degrees Celsius, and water depths from 25 to 200 centimeters Spawn in cool, clear streams featuring suitable gravel size, depth, and current velocity. Streamside vegetation and cover area essential for fry survival.	Not Present. No streams on or adjacent to subject site.
green sturgeon <i>Acipenser medirostris</i>	FT (southern DPS)	CSC	Ranges from Mexico to at least Alaska in marine waters, and forages in estuaries and bays ranging from San Francisco Bay to British Columbia. Currently believed to spawn regularly in the Rogue River, Klamath River Basin, and the Sacramento River. Spawning is known to occur infrequently in the Umpqua river and is suspected to occur, to an unknown extent, in the South Fork of the Trinity River and the Eel River.	Not Present. No streams on or adjacent to subject site.
delta smelt <i>Hypomesus transpacificus</i>	FT)	CT	Suisun Bay upstream through the Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties. Seldom found at salinities > 10 ppt. Most often at salinities < 2 ppt.	Not Present. No streams on or adjacent to subject site.
steelhead - Central California coast ESU <i>Oncorhynchus mykiss</i>	FT		Spawn in cool, clear streams featuring suitable gravel size, depth, and current velocity. Streamside vegetation and cover area essential for fry survival.	Not Present. No streams on or adjacent to subject site.

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Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
steelhead – Central Valley <i>Oncorhynchus mykiss</i>	FT		Spawn in cool, clear streams featuring suitable gravel size, depth, and current velocity. Streamside vegetation and cover area essential for fry survival.	Not Present. No streams on or adjacent to subject site.
chinook salmon - Central Valley spring-run <i>Oncorhynchus tshawytscha</i>	FT	CT	Spawn in cool, clear streams featuring suitable gravel size, depth, and current velocity. Streamside vegetation and cover area essential for fry survival.	Not Present. No streams on or adjacent to subject site.
chinook salmon - winter run, Sacramento River <i>Oncorhynchus tshawytscha</i>	FE	CE	Spawn in cool, clear streams featuring suitable gravel size, depth, and current velocity. Streamside vegetation and cover area essential for fry survival.	Not Present. No streams on or adjacent to subject site.
AMPHIBIANS				
foothill yellow-legged frog <i>Rana boylei</i>		CSC	Partially shaded, rocky streams at low to moderate elevations, in areas of chaparral, open woodland, and forest.	Not Present. No suitable habitat exists on or in the immediate vicinity of the subject site.
California red-legged frog <i>Rana draytonii</i>	FT	CSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development.	Moderate Potential to Occur. Although the subject site provides limited estivation and dispersal habitat, Railroad Marsh provides source of permanent water. Occurrence of this species has been recorded in the past.
REPTILES				
western pond turtle <i>Actinemys marmorata</i>		CSC	Permanent or nearly permanent bodies of water with protected areas for basking, such as partially submerged rocks or logs, floating vegetation mats or open mud	Low Potential to occur. Railroad Marsh provides a source of permanent water but basking areas are limited to unprotected “view areas” maintained by

Table IV.D – 2
Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
northwestern pond turtle <i>Actinemys marmorata marmorata</i>		CSC	banks. Permanent or nearly permanent bodies of water with protected areas for basking, such as partially submerged rocks or logs, floating vegetation mats or open mud banks.	the removal of cattail and subject to human and dog disturbance, limiting the suitability of this habitat for the species. Nearest occurrence in Golden Gate Park, San Francisco. No County occurrences. Low Potential to occur. Railroad Marsh provides a source of permanent water but basking areas are limited to unprotected “view areas” maintained by the removal of cattail and subject to human and dog disturbance, limiting the suitability of this habitat for the species. County occurrences more than 10 miles away at Muir Beach and Phoenix Lake in Mt. Tamalpais watershed.
BIRDS				
Great Egret <i>Ardea alba</i>		* (rookery site)	Variety of habitats, including marshes, tidal estuaries, lagoons, streams, lakes, and ponds. Nests primarily in tall trees near water. Variety of habitats, including freshwater and brackish marshes, lakes, rivers, bays, lagoons, beaches, fields, and meadows. Nests commonly high in trees in swamps and forested areas.	Low Potential to occur. No suitable nesting habitat on site. Limited suitable nesting habitat nearby. No mature trees on or in immediate vicinity of site.
Great Blue Heron <i>Ardea herodias</i>		* (rookery site)		Low Potential to occur. No suitable nesting habitat on site. Limited suitable nesting habitat nearby. No mature trees on or in immediate vicinity of site.
Short-eared Owl		CSC	Broad expanses of open land with low	Low Potential to occur. No suitable

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Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
<i>Asio flammeus</i>		(nesting)	vegetation for nesting and foraging. Suitable habitats include such types as fresh and saltwater marshes, bogs, dunes, prairies, grassy plains, old fields, tundra, moorlands, river valleys, meadows, savanna, and open woodland. Roost by day on ground, on low open perch, under low shrub, or in conifer.	nesting habitat on site. Limited suitable nesting and foraging habitat nearby (e.g. no broad expanses of open land).
Western Snowy Plover <i>Charadrius alexandrinus nivosus</i>	FT	CSC (nesting)	Breeds primarily above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. In winter, found on many of the beaches used for nesting as well as on beaches where they do not nest, in man-made salt ponds, and on estuarine sand and mud flats.	Not Present. No suitable habitat available on site. No suitable soils or salt water habitat on site.
Northern Harrier <i>Circus cyaneus</i>		CSC (wintering)	Marshes, meadows, grasslands, and cultivated fields. Nests on the ground, commonly near low shrubs, in tall weeds or reeds.	Low Potential to occur. No nesting habitat on site. Railroad Marsh subject to human and dog disturbance. Poor ground nesting potential.
Snowy Egret <i>Egretta thula</i>		* (rookery site)	Variety of habitats, including marshes, lakes, ponds, lagoons, and shallow coastal habitats. Nests in trees or shrubs or, in some areas, on ground or in marsh vegetation.	Low Potential to occur. No available rookery site within subject site. Railroad Marsh is subject to human and dog disturbance. Poor ground nesting potential; limited to marsh vegetation. No mature trees on or in immediate

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Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
White-tailed Kite <i>Elanus leucurus</i>		Cfp (nesting)	Savanna, open woodland, marshes, partially cleared lands and cultivated fields, mostly in lowland situations.	vicinity of the site. Low Potential to occur. No available nesting habitat on site. Limited preferred nesting habitat in Railroad Marsh; subject to human and dog disturbance.
Saltmarsh Common Yellowthroat <i>Geothlypis trichas sinuosa</i>		CSC	Freshwater marshes, coastal swales, swampy riparian thickets, brackish marshes, salt marshes, and edges of disturbed weed fields and grasslands that border soggy habitats.	Moderate Potential to occur. Suitable habitat within Riparian habitat on site and in Railroad Marsh. Known to occur in the past.
California Black Rail <i>Laterallus jamaicensis coturniculus</i>		CT Cfp	Marshlands with unrestricted tidal influence (estuarine, intertidal, emergent, regularly flooded). Prefers areas dominated by pickleweed, bulrushes, matted salt grass, and other marsh vegetation.	Not Present. No suitable tidal habitat on site or in immediate vicinity of site.
Alameda Song Sparrow <i>Melospiza melodia pusillula</i>		CSC	Resident of salt marshes bordering south arm of the San Francisco Bay. Requires dense vegetation for nesting, perches, and cover from predators.	Not Present. No suitable salt marsh habitat on site or in immediate vicinity of site.
San Pablo Song Sparrow <i>Melospiza melodia samuelis</i>		CSC	Resident of salt marshes bordering the north side of the San Francisco and San Pablo Bays. Requires dense vegetation for nesting, perches, and cover from predators.	Not Present. No suitable salt marsh habitat on site or in immediate vicinity of site.
Black-crowned Night Heron		*	Variety of habitats, including fresh and	Low Potential to occur. No suitable

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Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
<i>Nycticorax nycticorax</i>		(rookery site)	saltwater marshes, swamps, streams, lakes, and ponds. Nests in groves of trees near water.	nesting habitat on site. Limited suitable nesting habitat nearby (e.g. groves of mature trees).
California Brown Pelican <i>Pelecanus occidentalis californicus</i>	FE	CE (nesting colony and communal roosts)	Nesting restricted to islands in the Gulf of California and along the outer coast from Baja California to West Anacapa and Santa Barbara Island in Southern California. Non-breeding brown pelicans range northward along the Pacific Coast from the Gulf of California to Washington and southern British Columbia. Breed in nesting colonies on islands without mammal predators. Roosting and loafing sites include offshore rocks and islands, river mouths with sand bars, breakwaters, pilings, and jetties along the Pacific Coast and San Francisco Bay.	Not Present. No suitable nesting or communal roost habitat on or in the immediate vicinity of the site.
Double-crested Cormorant <i>Phalacrocorax auritus</i>		Cwl (rookery site)	Lakes, ponds, rivers, lagoons, swamps, coastal bays, marine islands, and seacoasts; usually within sight of land. Nests on the ground or in trees in freshwater situations, and on coastal cliffs (usually high sloping areas with good visibility).	Low Potential to occur. No available rookery site within subject site. Railroad Marsh is subject to human and dog disturbance. Poor ground nesting potential; limited mature trees in vicinity of site.
California Clapper Rail <i>Rallus longirostris obsoletus</i>	FE	CE Cfp	Saltwater and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. In the south and central	Not Present. No suitable salt or brackish marsh habitat on site or in immediate vicinity of site.

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Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
Bank Swallow <i>Riparia riparia</i>		CT (nesting)	San Francisco Bay and along the perimeter of San Pablo Bay, rails typically inhabit salt marshes dominated by pickleweed and Pacific cordgrass. Open and partly open habitats, frequently near flowing water. Nests in steep sand, dirt, or gravel banks, in a burrow dug near the top of the bank, along the edge of inland water or along the coast, or in gravel pits or road embankments.	Not Present. No suitable nesting habitat on or in the immediate vicinity of site (e.g. no steep banks).
California Least Tern <i>Sternula antillarum brownii</i>	FE	CE Cfp (nesting colony)	Bays and lagoons, nesting on the adjacent open sandy beaches, dunes, or disturbed sites. Nesting is limited to colonies in the San Francisco Bay, Sacramento River delta, and areas along the coast from San Luis Obispo County to San Diego County.	Not Present. No suitable nesting habitat on or in the immediate vicinity of the site (e.g. open sandy beaches, dunes, etc. adjacent to bay or lagoon).
MAMMALS				
pallid bat <i>Antrozous pallidus</i>		CSC	Arid deserts and grasslands, often near rocky outcrops and water. Usually roosts in rock crevice or building, less often in cave, tree hollow, mine, etc. Prefers narrow crevices in caves as hibernation sites.	Not Present. No suitable habitat on site (e.g. arid desert or grasslands).
southern sea otter <i>Enhydra lutris nereis</i>	FT	Cfp	Coastal waters near shore, especially shallows with kelp beds and abundant shellfish.	Not Present. No suitable marine habitat on site.
western red bat		CSC	Roost primarily in the foliage of trees or	Low Potential to occur. Limited mature

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Special status Wildlife Species Evaluated for the Potential to Occur within the Project site

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
<i>Lasiurus blossevillii</i>			shrubs.	trees on site. Marginal habitat in Railroad Marsh subject to human and dog disturbance.
hoary bat <i>Lasiurus cinereus</i>		*	Associated with forested habitats.	Not Present. No forested habitat on or in the immediate vicinity of the site.
San Pablo vole <i>Microtus californicus sanpabloensis</i>		CSC	Saltmarshes of San Pablo Creek on the south shore of San Pablo Bay. Requires soft soils for burrow construction.	Not Present. Site not located in or in vicinity of known habitat for the species.
salt-marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE	CE Cfp	Found only in the marshes of Corte Madera, Richmond, and South San Francisco Bay. Critically dependent on dense cover and preferred habitat is pickleweed. Seldom found in cordgrass or alkali bulrush.	Not Present. No suitable salt marsh habitat on or in the immediate vicinity of the site.
Angel Island mole <i>Scapanus latimanus insularis</i>		*	Known only from Angel Island in the San Francisco Bay. Needs habitats with friable soils for burrowing.	Not Present. Not located on or in immediate vicinity of Angel Island. No friable soils on site.
salt-marsh wandering shrew <i>Sorex vagrans halicoetes</i>		CSC	Tidal salt marsh plains above cordgrass zone, moist, lower pickleweed-dominated marsh, with abundant invertebrates, tidal debris, and flood escape habitat in the South San Francisco Bay.	Not Present. No suitable salt marsh habitat on or in the immediate vicinity of the site.
American badger <i>Taxidea taxus</i>		CSC	Prefers open areas and may also frequent brushlands with little groundcover. Although may prefer habitats with more friable soils for digging burrows, which are used for dens, escape, and predation,	Low Potential to occur. Available open areas on site are well maintained landscaped and turf areas with tightly compacted soils. Brushlands limited to riparian habitat in Railroad Marsh (i.e.,

**Table IV.D – 2
Special status Wildlife Species Evaluated for the Potential to Occur within the Project site**

Common Name Scientific Name	Status		Habitat Requirements	Potential Occurrence on the Project site
	Federal	State		
Point Reyes jumping mouse <i>Zapus trinotatus orarius</i>		CSC	the hard-baked earth in the middle of an unpaved road is no obstacle. When inactive, occupies underground burrows that are elliptical shaped and eight or more inches in diameter. Primarily found in bunchgrass marshes on the uplands of Point Reyes. Also, found in coastal scrub, grassland, and meadow habitats.	not true brushlands). Not Present. No suitable bunchgrass, coastal scrub, grassland, or meadow habitat on site.
<p>KEY: (nesting and/or wintering) = For most taxa, the CNDDDB is interested in information that indicates the presence of a resident population. For some species (primarily birds), the CNDDDB only tracks certain parts of the species range or life history (e.g., nesting locations).</p>				
<p>STATUS Federal FE: Federally-listed Endangered FT: Federally-listed Threatened FD: Federally-delisted</p>				
<p><u>State</u> CE: California-listed Endangered CT: California-listed Threatened CSC: California Species of Special Concern Cfp: California Fully Protected Species Cwl: California Watch List *: California Special Animal (species with no official federal or state status, but are included on the CDFG's Special Animal List due to limited distribution).</p>				

Table IV.D – 3
Sensitive Plant Communities Evaluated for the Potential to Occur within the Project site

Plant Community	Status		Habitat Requirements	Potential for Occurrence on the Project site
	GRank	SRank		
Coastal Brackish Marsh	G2	S2.1	Usually found at the interior edges of coastal bays and estuaries or in coastal lagoons. Similar to Coastal Salt Marshes, but brackish from freshwater input. Salinity may vary considerably, and may increase at high tide or during seasons of low freshwater runoff or both. Dominated by perennial, emergent, herbaceous monocots to 2m tall. Cover is often complete and dense. Similar to Salt and Freshwater marshes with some plants characteristic of each.	Not Present. Railroad Marsh is a Freshwater Marsh, cut off from tidal action in the 1880's by construction of the Northwestern Pacific Railroad (Davoren and Ellman 1980). Species present area characteristic of Freshwater Marshes.
Coastal Terrace Prairie	G2	S2.1	Coastal Terrace Prairie is found on sandy loams on marine terraces near the coast (below ~ 700 – 1,000 feet) within the zone of coastal fog incursion. Consist of tall grassland (to 1m tall) dominated by both sod and tussock-forming perennial grasses.	Not Present. No suitable soils or habitat present on site; not observed on site. Local occurrence recorded at Ring Mountain in lower sandstone slopes.
Northern Coastal Salt Marsh	G3	S3.2	Usually found along sheltered inland margins of bays, lagoons, and estuaries. These hydric soils are subject to regular tidal inundation by salt water for at least part of each year.	Not Present. No suitable habitat or soils subject to regular salt water, tidal inundation; not observed on site. Regional occurrences are known from Corte Madera Marsh, Chevron Marsh and the mouth of San Pablo Creek, all on San Pablo Bay.
Serpentine Bunchgrass	G2	S2.2	Restricted to serpentine soils in protected, dry, less windy , and more sunny uplands than serpentine scrub. Dominants include purple needlegrass, foothill needlegrass, and wildflowers including footsteps to spring, cream cups, goldfields, California poppies, Presidio clarkia and Marin dwarf flax.	Not Present. No suitable habitat or serpentine soils on site; not observed on site. Local occurrence recorded within St. Hilary preserve in upland areas north of, but not adjacent to the site; approx 1 mile due west of Bluff Point. Other occurrences recorded on Tiburon Middle Ridge and Ring Mountain.

KEY:

The conservation status of a community is designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = Global and S = Subnational [state or province]). The numbers have the following meaning:

- 1 - Critically imperiled (at very high risk of extinction due to extreme rarity [often 5 or fewer populations], very steep declines, or other factors).
- 2 - Imperiled (at high risk of extinction due to very restricted range, very few populations [often 20 or fewer], steep declines, or other factors).
- 3 - Vulnerable to extirpation or extinction (at moderate risk of extinction due to a restricted range, relatively few populations [often 80 or fewer], recent and widespread declines, or other factors).
- 4 - Apparently secure (uncommon but not rare; some cause for long-term concern due to declines or other factors).
- 5 - Demonstrably widespread, abundant, and secure (common; widespread and abundant).

Other ranks include:

- ? - Represents rank uncertainty; and
- NR - Not ranked.

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Plants

Based upon a review of the resources and databases available, sixty-three special status plants have been documented in the regional vicinity of the proposed project site. Of these, sixty-one species were determined to be “not present. There are no special status plants identified as “low potential to occur” “likely to occur” or “present” on the project site. This is due to the lack of suitable soils and suitable habitat (e.g., serpentine soils, coastal prairie, riparian woodland, etc.). There are two special status plant species that do not have a potential to occur on the project site but have a moderate potential to occur in Railroad Marsh. These two species are Point Reyes checkerbloom (*Sidalcea calycosa* ssp. *rhizomata*) and Suisun Marsh aster (*Symphotrichum lentum*), discussed below.

Point Reyes Checkerbloom (*Sidalcea calycosa* ssp. *Rhizomata*)

Point Reyes checkerbloom is a perennial herb (rhizomatous) that is native to California and is endemic (limited) to California alone. It is included in the CNPS Inventory of Rare and Endangered Plants on list 1B.2 meaning that it is rare, threatened, or endangered in California. It occurs in marshes and swamps, especially freshwater marshes near the coast at elevations between 5-75 meters. Point Reyes checkerbloom is only known to occur in three California counties: Marin, Sonoma, and Mendocino. The blooming season for this species extends from April through September. Although Point Reyes checkerbloom was not observed during any of the biological assessments and/or wetland delineations conducted during appropriately timed site visits, there is suitable habitat for this species in Railroad Marsh. The only recorded occurrence is from a specimen collected in 1918 by Eastwood at Lake Lagunitas and the species is presumed extant (CNDDDB 2009). Because of the presence of suitable habitat in Railroad Marsh, which is immediately adjacent to the project site, this species has a moderate potential to occur in Railroad Marsh.

Suisun Marsh Aster (*Symphotrichum lentum*)

Suisun Marsh aster is a perennial herb (rhizomatous) that is native to California and is endemic (limited) to California alone. It is included in the CNPS Inventory of Rare and Endangered Plants on list 1B.2 meaning that it is rare, threatened, or endangered in California. It occurs in brackish and freshwater marshes and swamps almost always under natural conditions in wetlands and is most often seen along sloughs with phragmites, scirpus, blackberry, typha, etc. from 0-3 meters in elevation. The blooming period for this species extends from May through November. Suisun Marsh aster is not known to occur in Marin County. The closest recorded occurrence is across the Bay in West Richmond at Point Molate from a specimen collected by Powell in 1988 (CNDDDB 2009). The species is presumed extant. Although the species was not observed during any of the biological assessments and/or wetland delineations conducted during appropriately timed site visits, there is suitable habitat for this species in Railroad Marsh. Because of the presence of suitable habitat in Railroad Marsh, which is immediately adjacent to the project site, this species has a moderate potential to occur in Railroad Marsh.

Sensitive Natural Communities/Habitats

Four Sensitive Natural Communities have been documented by CNDDDB and CNPS to occur in the vicinity of the proposed project site. None of these sensitive natural communities or habitats is present on the project site. This is due to the lack of suitable hydrology, topography, and soils occurring on and in the immediate vicinity of the site (e.g., Coastal bay, lagoon, estuary, serpentine soils on hillsides, sandy soils). However, a portion of Railroad Marsh lies within the project boundary and Railroad Marsh abuts the project boundary to the north. Although Railroad Marsh is not included in the Sensitive Natural Communities documented to occur within the site vicinity, it is a locally protected resource by the Open Space and Conservation Goals outlined in the *Tiburon 2020 Town of Tiburon General Plan*, by virtue of its classification as a water, wetland, and potential habitat for special status species. Special status species associated with Railroad Marsh are addressed under Plants and Animals. The Marsh habitat and wetland characteristics are addressed under Jurisdictional Waters and Wetlands.

Animals

Fifty-one special status wildlife species have been documented in the vicinity of the proposed project site. Of these species, thirty-four are “not present”, and fourteen have a “low potential to occur” on or in the immediate vicinity of the project site. None of the listed species are identified as “likely to occur” or “present” on or in the immediate vicinity of the project site. This is due to the lack of essential habitat elements required by the individual species for survival and/or breeding (e.g., saltwater marshes and meadows, specific natural vegetation communities for foraging, stands of mature trees for nesting, etc.). Two species, the California red-legged frog (*Rana draytonii*), and the salt marsh common yellowthroat (*Geothlypis trichas sinuosa*), have a “moderate potential to occur” on the project site and the robust walker (*Pomatiopsis binneyi*) is “not present” on the project site but has a “moderate potential to occur” in the aquatic habitat of Railroad Marsh. These three species are further discussed below.

California Red-legged Frog (*Rana draytonii*)

The California red-legged frog (CRLF) formerly occurred from Shasta County to Baja California, west of the mountains. It also occurred historically on a few desert slopes in the western Mojave and Colorado deserts. According to the USFWS (61 FR 25813–25833), the species has been extirpated from 70 percent of its former range and is now found primarily in wetlands and streams in coastal drainages of central California from Marin County to Ventura County. It has been all but eradicated from California's inland regions, including the foothills of the Sierra Nevada and coastal areas south of Ventura County (Jennings and Hayes 1994). The species occurs, or once occurred, at elevations ranging from sea level to 4,900 feet (1,500 meters). The CRLF species is listed as threatened by the USFWS and is recognized as a California Species of Concern (CSC) by CDFG. It typically occurs in aquatic habitat of streams and ponds, but can disperse considerable distances in search of breeding and aestivation sites. Continued loss of upland dispersal habitat, fragmentation of remaining breeding locations, competition and predation by bullfrog, and degradation of aquatic habitat are primary concerns regarding protection and recovery of this species.

Common habitats of the CRLF include stream borders, moist woods, forest clearings, and grasslands (Stebbins 1985). CRLF feeds on insects, mammals, and other amphibians along shorelines. A permanent water source and structurally complex vegetation are habitat requirements of the CRLF. The habitats found to contain the largest densities of CRLF are usually associated with deep-water pools (>2 ft. deep) with dense stands of overhanging willows (*Salix spp.*) and an intermixed fringe of cattails (*Typha latifolia*), tules (*Scirpus spp.*), or sedges (*Carex spp.*) (Hayes and Jennings 1988). However, CRLF have also been observed to inhabit stock ponds and artificial (e.g., concrete) pools completely devoid of vegetation (Storer 1925). CRLF cannot successfully reproduce at salinities $a > 4.5\%$ (Jennings and Hayes 1990) and are thus largely restricted to freshwater and slightly brackish water habitats. For lagoon habitats such as Pescadero Marsh in Santa Cruz County, CRLF will be present only during periods when the salinities of the lagoons are within the range tolerated by the species (Padgett-Flohr and Jennings 2002).

The project site occurs outside of the designated critical habitat areas for CRLF, which were recently approved by the USFWS. Critical Habitat for CRLF in Marin County occurs in west Marin near Tomales Bay and Drakes Bay in Point Reyes National Seashore (USFWS 2009). Two occurrences of CRLF are recorded in Tiburon. The nearest known population of CRLF is within Old Lagoon (now Keil Pond) at Keil Cove approximately 1.5 miles to the northeast of the project site, on the north side of the Tiburon peninsula (March 1997). The other occurrence is between Bluff Point and Point Chauncey, in a live oak woodland, upslope of the Keil Pond breeding site (Sept 2000). The one juvenile observed was presumed to be overwintering. As noted above, CRLF require both permanent water and complex vegetation structure to complete their life cycle. The project site does not contain any areas of permanent water or suitable vegetation. In addition, due to continual ongoing landscape maintenance on the site, suitable vegetation is limited to the wetland interface with Railroad Marsh. Although there is no suitable breeding or foraging habitat on site, CRLF have a moderate potential to occur on site due to known occurrences in the vicinity of the site (within 1.5 miles) and potential breeding habitat within Railroad Marsh. In addition, CRLF was observed at Railroad Marsh during a biological assessment by White and Davis in 1982 (WRA 2001). CRLF is a federally threatened species and a CDFG Species of Special Concern.

Salt Marsh Common Yellow Throat (*Geothlypis trichas sinuosa*)

The salt marsh common yellow throat is a Resident and summer visitant in the San Francisco Bay area, and winters south along the coast to San Diego County (Grinnell and Miller 1944). The salt marsh common yellow throat requires dense growth of vegetation associated with moist environments. The species inhabits freshwater marshes, coastal swales, swampy riparian thickets, brackish marshes, salt marshes, and edges of disturbed weed fields and grasslands that border soggy habitats. The species feeds on insects, especially caterpillars and other larvae; also spiders and a few seeds. These birds glean wetland herbage and shrubs (Bent 1953). Salt marsh common yellow throat breeds from early April to mid-July, with peak activity in May and June. Nests are usually placed on or within 8cm (3in) of the ground. Nests may be over water, in emergent aquatic vegetation, dense shrubs, or other dense growth.

Breeding populations have been documented in wetlands along the Marin County coast in Rodeo Lagoon, Fort Barry Military Reservation and Tennessee Cove, Marin Headlands State Park. Occurrence of

common yellowthroat is fairly common in Marin County (CDFG 2005). This species was observed in Railroad Marsh during a biological assessment by White and Davis in 1982 (WRA 2001). The project site does not support suitable nesting or foraging habitat, however, Railroad Marsh does support both nesting and foraging habitat. The salt marsh common yellow throat has a moderate potential to occur on site due to the known presence of the species in Railroad Marsh in the past, as well as suitable breeding, foraging and nesting habitat in the Marsh. The salt marsh common yellow throat is a CDFG Species of Special Concern.

Robust Walker (*Pomatiopsis binnevi*)

The robust walker is a freshwater snail that has a Ranking of G1 and N1, meaning that it is critically imperiled worldwide and in the United States. This snail is only known from occurrences in California and Oregon. Natural heritage records exist only for Curry County in Oregon and Marin County in California. Freshwater snails have adapted to most North American habitats including permanent standing, intermittent, and flowing waters. Precise geographic distribution of American freshwater snails is not known but is expected to reflect past geologic, geographic and climatic change (Smith, 1989). Movements between isolated or inaccessible portions of water bodies is possible but dependent on outside, passive processes (e.g. rafting, periodic flooding, transport by vertebrates, introduction by humans). Long-distance dispersal is generally not considered when assigning separation distances as otherwise impracticably large separation distances would result.

The only known occurrence of the robust walker in California is from a population found in several springs in Potrero Meadows, in the Tomales-Drakes Bay watershed area, approximately 29 miles away in the north western portion of Marin County. It is not likely that this species exists within Railroad Marsh, however, there is suitable freshwater habitat so it has a moderate potential to occur. The robust walker is on the CDFG July 2009 Special Animals list. “Special Animals” refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species”.

Jurisdictional Waters

Railroad Marsh is located adjacent to and immediately northeast of the project site. A small portion of the Marsh is included in the project boundary. The Marsh was historically part of Belvedere Lagoon and supported salt marsh and tidal mudflat habitat (Nichols and Wright 1971) but was cut off from tidal action in the 1880’s by construction of the Northwestern Pacific Railroad (Davoren and Ellman 1980). The original salt marsh changed to freshwater marsh as a result of siltation from the development of the rail yard and later development of the adjacent hillsides.

A “Delineation of Potential Waters of the United States” was conducted for a previously proposed Library expansion project in 2006. An updated delineation was conducted by CAJA biologists in 2009 and includes the entire proposed project boundary. Field surveys were conducted, and observed wetlands and water bodies in the vicinity of the project site were mapped. The 2009 delineation is being submitted

to the Corps for verification. In general, the delineation found that wetland areas associated with Railroad Marsh extend to the 96' contour in the vicinity of the project site (Figure IV.D.-1). The wetland areas consist of both riparian and freshwater emergent wetland vegetation as well as open water and are subject to regulation by The Corps, CDFG, and RWQCB. A 25' minimum buffer has been established for the project to ensure that no grading or construction activities occur within or immediately adjacent to onsite wetlands and adjacent Railroad Marsh.

Local

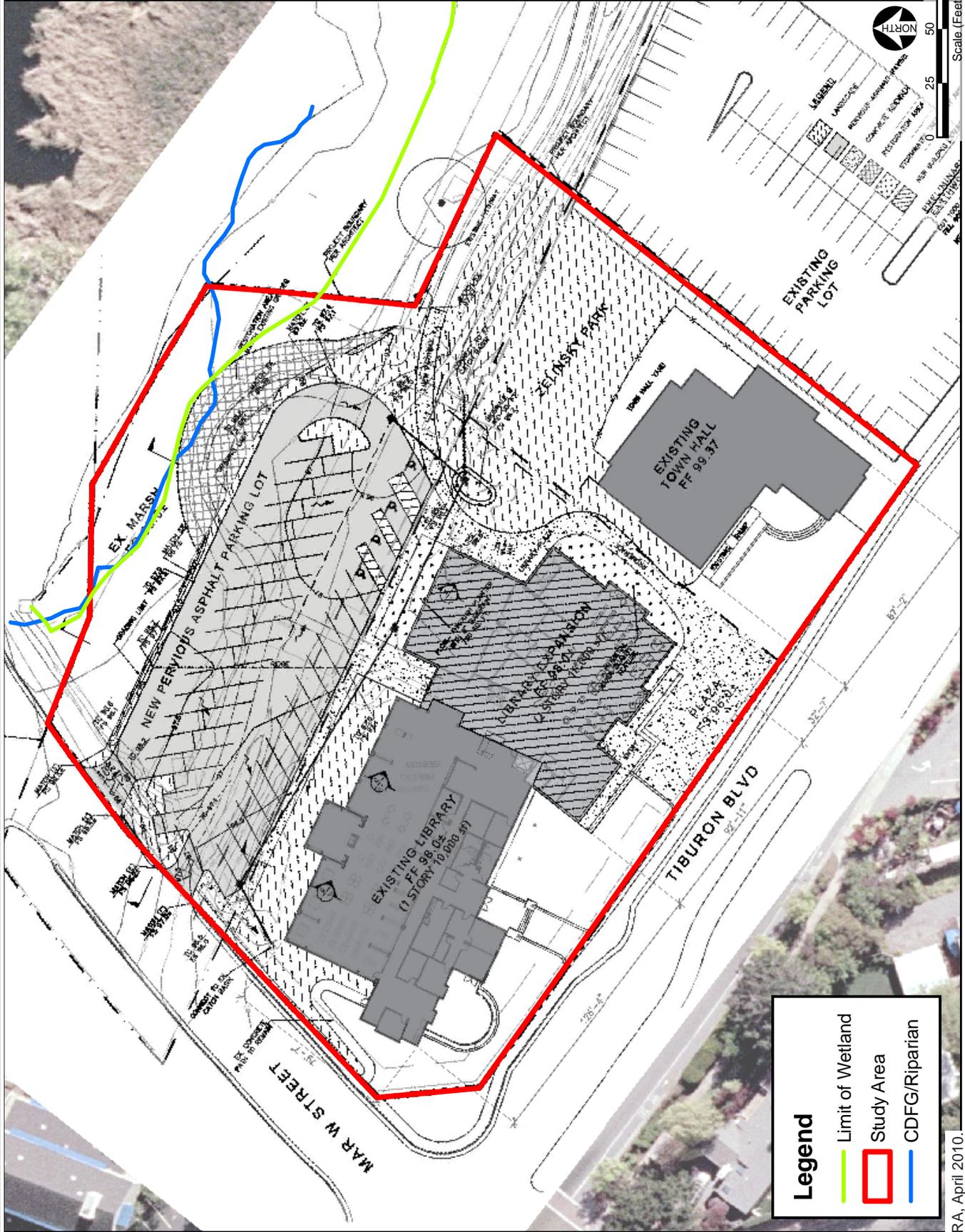
As detailed in the Regulatory Setting at the beginning of this section, Railroad Marsh is also protected by measures set forth in the Tiburon 2020 General Plan Open Space & Conservation Element. The Town's General Plan defines certain conservation goals and objectives, and preservation policies for protecting vegetative, water, fish and wildlife resources within the Tiburon planning area.

In addition, the Town of Tiburon Municipal Code specifically addresses the disposition of trees located on Town property. The ***Guide to Policies for Trees Located on Town Property*** is also detailed in the Regulatory Setting portion of this section.

ENVIRONMENTAL IMPACTS

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

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- 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;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or



Source: WRA, April 2010.

Figure IV.D-1
 Study Area Wetland Boundary

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Project Impacts

Impact BIO-1: Implementation of the proposed project would not have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species. (LTS/M)

Special status Plant Species

Although special status plants have been identified by the CNDDDB to occur in the vicinity, it is unlikely that the project site supports any of these special status plant species due to the level of site development and landscaping on the site. The project site does not contain specified soils, moisture regime or other significant habitat features necessary to support growth of the special status plant species listed with the potential to occur in the region. Two special status plants, the Point Reyes checkerbloom and the Suisun Marsh aster, have a moderate potential to occur in Railroad Marsh. Mitigation designed to protect Railroad Marsh from degradation during construction are outlined in Mitigation Measures BIO-1a through BIO -1b below. With the implementation of these measures, the potential for inadvertent impacts to Railroad Marsh due to the construction of the proposed project would be reduced to a ***less than significant*** level. The proposed project would not directly affect any known occurrences of special status plant species on or in the immediate vicinity of the project site.

Special status Wildlife Species

Although special status wildlife species have been identified by the CNDDDB to occur in the vicinity, it is unlikely that the project site supports any of these special status wildlife species due to the level of site development and landscaping on the site. The project site lacks essential habitat elements required by the individual species for survival and/or breeding (e.g., saltwater marshes and meadows, specific natural vegetation communities for foraging, stands of mature trees for nesting, etc.). However, two special status species, the California red-legged frog and the salt marsh common yellow throat have a moderate potential to occur on site due to the proximity of Railroad Marsh which contains suitable habitat for these species. In addition, the robust walker has a moderate potential to occur in the open water portions of Railroad Marsh. Mitigation Measure BIO-1a would reduce the potential for inadvertent impacts to these species due to implementation of the proposed project to ***less than significant***. Proposed development would not directly affect any known occurrences of special status animal species on or in the immediate vicinity of the project site.

Mitigation Measure BIO-1a Special Status Species:

California red-legged frog (CRLF)

A qualified biologist (hereafter, biological monitor), capable of monitoring projects with potential habitat for California red-legged frogs (CRLF) shall be present at the site as follows:

1. Prior to and within 3 days of installation of exclusion fencing (type to be determined through consultation with CDFG and USFWS), the monitor shall survey the location for the installation for the presence of CRLF. In addition, should any burrows be observed, the burrows shall be inspected by the biologist to determine if it is being used by the species. Should CRLF be observed, the area shall be vacated and re-inspected in one week. If no animal use is noted, the burrows shall be carefully excavated using a small trowel or shovel. Careful prodding using a blunt object will aid in determining the course of the tunnel such that the tunnel is excavated from the sides rather than the top, reducing the potential for any injury should an animal be present. Excavated burrows with no CRLF shall be left open so they cannot be re-occupied. If any non-listed species are located, they shall be translocated outside of the construction zone. Should any individual CRLF be found during the field survey or excavation, the area where that individual has been found shall remain undisturbed. If any life stage of the CRLF is found during these surveys or excavations, the Department of Fish and Game and the US Fish and Wildlife Service shall be contacted immediately, and activities that could result in take shall be postponed until appropriate actions are taken to allow project activities to continue.
2. During installation of construction zone exclusion fencing, the biological monitor shall be present and will oversee the installation of all construction fencing. The exclusionary fencing shall be installed along the Marsh boundary first, leaving the southeastern property boundary open so that if any animals are within the construction zone, they will have the opportunity to move out of the area freely. Once it is confirmed that no animals remain within the project boundary, the remaining exclusionary fencing shall be placed.

Immediately following installation of exclusion fencing, the biological monitor shall survey the enclosed construction zone for the presence of CRLF. If any life stage of the CRLF is found during these surveys, the Department of Fish and Game and the U.S. Fish and Wildlife Service shall be contacted immediately, and activities that could result in take shall be postponed until appropriate actions are taken to allow project activities to continue.

The biological monitor shall be present at all times during restoration area planting activities outside the construction zone and within the buffer area, to monitor for the presence of CRLF.

The biological monitor shall prepare a training document in both English and Spanish about the animals of concern, their identification, and the methods of avoidance and reporting requirements and procedures, should the species be observed. The document shall provide photographs of the species and notification numbers for the monitor, the Department of Fish and Game, and the U.S. Fish and Wildlife Service. The training document and contact information for the monitor shall be posted at the construction zone and maintained in the monitoring log. Every contractor, sub-contractor and construction worker shall be provided a copy of the training document in advance of their respective construction activities and shall be required to adhere to its contents.

A highly visible warning sign shall be installed along the project perimeter. The warning sign shall be in English and Spanish and shall state: “Stay Out - Habitat Area of Federally Protected Species.” A document drop shall be attached to several warning signs and stocked with a supply of training documents.

The biological monitor shall conduct weekly site visits when construction is occurring to verify that all construction zone exclusionary fencing is in place and functioning as intended. Any repair or maintenance to the fencing deemed necessary by the biological monitor shall be completed under the monitor’s supervision. Such maintenance activities include adequate removal of vegetation at the construction fence line to ensure that vegetation “ladders” for species access are not allowed to establish.

Once construction activities are complete, the exclusion fencing shall be removed under the supervision of the biological monitor. Prior to the removal of the buffer area/restoration area fencing, permanent exclusionary measures shall be put in place to prevent special status species movement beyond the buffer areas. Wildlife movement through the site shall be facilitated via the buffer zone established between the exclusionary fencing and the Marsh.

The general contractor shall assign a crew member that will be responsible for conducting site inspections, monitoring gate opening and closing, and assuring that other species protection measures are in place and being enforced when the Biological Monitor is not present. The crew member shall adhere to the procedures contained in the training document and shall be able to contact the biological monitor should any violations be noted or listed species observed on-site.

The biological monitor has the authority to halt all or some construction activities and or modify all or some construction methods as necessary to protect habitat and individual sensitive species. The monitor shall be responsible for contacting USFWS should any endangered or threatened species be observed within the construction zones.

The biological monitor shall complete daily monitoring reports for each day present, to be maintained in a monitoring log-book kept on site. Reports must contain the date and time of work, weather conditions, biological monitor’s name, construction or project activity and progress performed that day, any listed species observed, any measures taken to repair and or maintain fencing, and any construction modifications required to protect habitat. The monitoring log-book with compiled reports shall be submitted to the Town of Tiburon upon cessation of construction as part of a construction monitoring report.

Birds (including the salt marsh common yellow throat)

While no nests of raptors or other birds were observed on the site during the reconnaissance survey conducted by CAJA’s biologist, there is a potential for new nests to be established prior to project implementation, or during later phases of construction. In addition, Railroad Marsh’s dense willow riparian habitat exists along the northeastern property boundary and could provide nesting habitat for the

salt marsh common yellow throat, a special status species, in addition to common bird species. Tree removal, vegetation clearing, or disturbance in the immediate vicinity of a nest if active use could result in abandonment of the nest or loss of eggs and young, which would be a violation of the Migratory Bird Treaty Act. Preconstruction surveys would be necessary in advance of construction during the nesting season (March through August) to confirm presence or absence of any new nests. This includes removal of landscape shrubs and trees required for the relocation of Zelinsky Park. Potential impacts to nesting birds are considered to be a potentially significant impact.

Mitigation Measure BIO-1b: Any active raptor or other nests in the vicinity of proposed grading shall be avoided until young birds are able to leave the nest (i.e., fledged) and forage on their own. Avoidance may be accomplished either by scheduling grading and tree removal during the non-nesting period (September through February), or if this is not feasible, by conducting a pre-construction survey for raptor nests. Provisions of the pre-construction survey and nest avoidance, if necessary, shall include the following:

If grading is scheduled during the active nesting period (March through August), a qualified wildlife biologist shall conduct a pre-construction nesting survey no more than 14 days prior to initiation of grading to provide confirmation on presence or absence of active nests in the vicinity.

If active nests are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with CDFG and implemented to prevent nest abandonment. At a minimum, grading in the vicinity of the nest shall be deferred until the young birds have fledged. A nest-setback zone of at least 300 feet shall be established for raptors and 100 feet for other birds within which all construction-related disturbances shall be prohibited. The perimeter of the nest-setback zone shall be fenced or adequately demarcated (e.g. high visibility fencing, staking or flagging), and construction personnel restricted from the area.

If permanent avoidance of the nest is not feasible, impacts shall be minimized by prohibiting disturbance within the nest-setback zone until a qualified biologist verifies that the birds have either a) not begun egg-laying and incubation, or b) that the juveniles from the nest are foraging independently and capable of independent survival at an earlier date. A survey report by the qualified biologist verifying that the young have fledged shall be submitted to the Town of Tiburon and CDFG prior to initiation of grading in the nest-setback zone.

With implementation of Mitigation Measure BIO-1a and BIO-1b this impact would be *less than significant*.

Impact BIO-2: Implementation of the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. (LTS/M)

Proposed grading and development would not result in impacts to Riparian Habitat or Other Sensitive Natural Community. None of the four Sensitive Natural Communities listed occur on the project site. Riparian habitat and a small amount of emergent wetland adjacent to Railroad Marsh, a locally sensitive

freshwater marsh, occur along the northeastern property boundary. A minimum setback of 25' from the 96 foot contour has been established to insure that no grading or construction activities occur close to sensitive vegetation. No riparian or other sensitive natural communities will be directly impacted as a result of project implementation. In addition, Mitigation Measures HYDRO- 1a and HYDRO -1b which establish the implementation of an erosion control plan and SWPPP as well as a Stormwater Control Plan in accordance with MCSTOPPP guidelines will reduce any potential threats to degradation of Railroad Marsh. In addition, the following mitigation measures would reduce impacts to both special status species and their associated sensitive habitats within Railroad Marsh.

Mitigation Measure BIO-2a: Proposed project construction activities will not result in impacts to project area wetlands and/or habitat for special status species known to occur in Railroad Marsh, immediately adjacent to the site. The applicant's shall obtain verification of the current wetland delineation and shall consult with the regulatory agencies regarding special status species. The applicant shall continue to coordinate all project activities potentially regulated by State, Federal, and local agencies and shall obtain all necessary permits from CDFG, Corps, USFWS, and the RWQCB as required by federal and State law to avoid, minimize or offset impacts to any species listed under either the State or federal Endangered Species Acts or protected under any other State or federal law.

Evidence that the applicant has secured any required authorization from these agencies shall be submitted to the Town of Tiburon prior to issuance of any grading or building permits for the project.

Mitigation Measure BIO-2b: Sensitive and general habitat features outside the limits of approved grading and development shall be protected by identifying a construction and development boundary on all project plans and prohibiting construction equipment operation within this boundary. The boundary shall be staked and flagged in the field with a highly visible color coded system and all construction and equipment operators shall be instructed to remain outside this no-disturbance boundary for the duration of construction. This measure is in addition to the wildlife exclusion fencing described in Mitigation Measure Bio-1a and applies to the protection of all habitat features outside of the project limits.

Mitigation Measure BIO-2c: The area between the proposed Library expansion and Railroad Marsh shall be enhanced to improve habitat value and to protect sensitive riparian, marshland and open water habitats:

Invasive non-native plants occurring in the buffer and within the riparian woodland adjacent to the project site including acacia, eucalyptus, pampas grass, French broom, Himalaya berry, poison hemlock, curly dock, and fennel shall be removed in order to enhance the habitat value of the riparian woodland and to prevent further spread of non-natives into Railroad Marsh. The current lawn areas within the project boundary contain non-native invasive weeds such as wild oats, wild radish, bristly ox-tongue and others. This same mix of non-native annual grasses and weeds exists throughout upland areas adjacent to the south side of Railroad Marsh. The Library Agency and the Town of Tiburon shall coordinate the enhancement of these areas to incorporate native forbs and grasses and to eradicate non-native invasives

in the ongoing maintenance of the area in accordance with goals set forth in the Invasive Species and Open Space Management Policies of the Tiburon 2020 Open Space & Conservation Element.

Permanent signage shall be installed to inform and educate the public about Railroad Marsh and its sensitive habitats. Signage shall be placed at an adequate distance from the Marsh edge in order to discourage intrusion on sensitive habitats. Signage shall provide information on the history of the marsh, habitat and species composition as well as the sensitivity of these habitats and the need to restrict human and dog intrusion into the Marsh area.

With implementation of Mitigation Measure BIO-2a, BIO-2b and BIO-2c this impact would be *less than significant*.

Impact BIO-3: Implementation of the proposed project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act. (LTS/M)

No direct impacts to wetlands will occur from the proposed project. A 25-foot buffer from the 96' contour is indicated on the project plans and will be maintained throughout all project phases. Under the proposed alternative, a small portion of Zelinsky Park (0.1 acres) adjacent to the buffer will be restored to natural grade and will be incorporated into the area designated as wetlands. Grading activities necessary to reconfigure Zelinsky Park will take place during the dry season. In addition to the buffer which commences at the 96' contour just beyond the riparian area, this buffer provides additional area that serves to protect wetlands in adjacent Railroad Marsh. With the implementation of mitigation measures BIO-1a through Bio -2c as well as HYDRO -1a and HYDRO-1b potential impacts to project area wetlands would be *less than significant*.

Impact BIO-4 Implementation of the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of a native wildlife nursery site. (LTS/M)

Sensitive wildlife habitats are located north east of the project site within the adjacent Railroad Marsh. Due to the continuous and ongoing landscape maintenance activities on the project site, special status and common wildlife species movement across the site is limited. Current wildlife activity occurs mostly within the Marsh and along the Marsh/lawn area interface. A buffer zone will be maintained throughout project construction to prevent inadvertent degradation to Railroad Marsh and restrict movement of wildlife onto the construction zone. This buffer will maintain a corridor along the Marsh/lawn area interface to facilitate wildlife movement through the site. With the implementation of mitigation measures BIO-1a through Bio-2a as well as HYDRO-1a and HYDRO-1b potential impacts to project area wildlife, potential nursery sites, and wildlife movement corridors would be reduced to *less than significant*.

Impact BIO-5 Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources. (LTS)

In general the proposed project would conform to local policies and ordinances related to protection of vegetative, water, fish and wildlife resources. OSC-20 in the Town of Tiburon General Plan states that “Buffer zones of at least 100 feet shall be provided, to the maximum extent feasible, between development and wetland areas”. The project as designed maintains a minimum 25 foot buffer from the delineated wetlands, including CDFG regulated riparian habitat. No impacts to project area wetlands or Railroad Marsh would occur due to project implementation. Policy OSC-20 would be amended to add an exception from the 100-foot setback provision in the case of public projects benefiting a substantial segment of the community.

Mitigation measures proposed as part of the project or recommended as part of this EIR would ensure sensitive resources are adequately protected or mitigated in compliance with the goals and objectives set forth in the Tiburon 2020 General Plan Open Space & Conservation Element, as detailed in the Regulatory Setting section of this EIR. In particular, the project goals include the protection of all project area sensitive habitats, vegetation resources, water resources, and fish and wildlife resources. The project incorporates a restoration and enhancement plan that involves the removal and regrading of a portion of Zelinsky Park (approx. 0.1 acres) back to natural contours and enhancement of the riparian woodland along the northeastern project boundary. The project designates a buffer along the riparian habitat and sensitive resources occurring in the adjacent Railroad Marsh, protecting both water and habitat quality of the Marsh in addition to protecting species potentially dispersing from the Marsh. No buildings will be placed within 100 feet of the riparian zone or Marsh edge. The parking area that will be constructed drains away from the Marsh and incorporates bio filtration which cleans stormwater prior to routing to the Town’s municipal storm drains. The project does not propose any impacts to special status species or their habitats and provides BMP’s to insure that these species will not be negatively impacted by project development.

In summary, with the implementation of Mitigation Measures set forth in this EIR, upon completion the project will have enhanced existing habitat for project area wildlife, created a Railroad Marsh public education component, decreased impervious surface area and lessened the effect of direct runoff into Railroad Marsh, all in conformance with the goals and objectives set forth in the Tiburon 2020 Open Space & Conservation Element and this impact would be *less than significant*.

Impact BIO-6 Implementation of the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. (NI)

The proposed project site and its vicinity are not located within an area covered by a Habitat Conservation Plan, Natural Community Plan, or other approved local, regional, or state habitat conservation plan and there would be *no impact*.

CUMULATIVE IMPACTS

The overall cumulative effect of development is dependent on the degree to which significant vegetation and wildlife resources are protected or mitigated as part of individual developments. This includes preservation of areas of sensitive natural communities, protection of essential habitat for special status plant and animal species, and avoidance of wetlands. Further environmental review of any specific development proposals in the vicinity of the site should generally serve to ensure that important biological and wetland resources are identified, protected and properly managed, and should serve to prevent any significant adverse development-related impacts. However, there may be significant impacts of an individual development cannot be fully mitigated and could contribute to significant cumulative impacts on biological and wetland resources as well.

The project would not have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species. The project will not have a substantial adverse effect on any riparian habitat, other sensitive natural community or jurisdictional wetlands or waters. The project site is not located within a known movement corridor for wildlife species and does not support habitat considered to be suitable for a native wildlife nursery site. The proposed project site and its vicinity are not located within an area covered by a Habitat Conservation Plan, Natural Community Plan, or other approved local, regional, or state habitat conservation plan. Mitigation measures have been provided to avoid, minimize and mitigate for potential impacts to nesting birds consistent with the requirements of the Migratory Bird Treaty Act and to Railroad Marsh, its sensitive habitats and potential special status and other wildlife species potentially breeding, nesting and/or foraging in the Marsh. These measures are consistent with the regulatory policies of federal, state and local agencies. There are no proposed projects in the area that would contribute to any changes to biological resources in the project area. Therefore, impacts to biological resources as a result of the project would be *less than significant*, cumulative or otherwise.

IV. ENVIRONMENTAL IMPACT ANALYSIS

E. HYDROLOGY & WATER QUALITY

INTRODUCTION

This section of the Draft EIR describes existing hydrology and water quality on the project site and in the surrounding area. It also evaluates the potential for hydrology and water quality impacts associated with implementation of the proposed project. A regulatory framework is provided in this section describing applicable agencies and regulations related to the proposed project.

Preparation of this section used data from various sources. These sources include project-specific plans and descriptions (see Section III. Project Description), several previous Initial Study documents, both on the project site (*Zelinsky Park/Railroad Marsh Floodplain Landscape Project Initial Study*, *Belvedere-Tiburon Library Proposed Expansion General Plan Amendment and Rezoning Initial Study*) and for a neighboring project (*Tiburon Peninsula Club Initial Study*), as well as the Town's General Plan and other ordinances and studies related to flooding and water quality (*Town of Tiburon Storm Drainage Master Plan*). Also reviewed were the FEMA maps and study for the area, the *Marin County Soils Survey*, and other reports and studies listed in the references section of this chapter.

ENVIRONMENTAL SETTING

Regional Setting

The Town of Tiburon is located on the Tiburon Peninsula in southeastern Marin County. Elevations on the peninsula range from sea level to about 650 feet, and it is drained by multiple small watersheds on the north and south sides. Raccoon Strait is present to the southeast of the peninsula (separating it from Angel Island), Richardson Bay lies to the west and southwest, Belvedere Lagoon and Cove to the South, and San Francisco Bay to the northeast.

Climate

The Tiburon peninsula is located in the Mediterranean-type climate zone typical of coastal central California. This zone is characterized by cool, wet winters and warm, dry summers, with almost all rain falling between the months of October and April. The mean annual precipitation (MAP) in the region ranges from up to 50 inches at the highest points of Mount Tamalpais to roughly 24 inches near the Town of Bolinas, with an average value of about 23 inches near the Town of Tiburon.¹

¹ Rantz, 1971, *Precipitation depth-duration-frequency relations for the San Francisco Bay region, California, with isohyetal map of San Francisco Bay region, California, showing mean annual precipitation.* USGS, Professional Paper 750-C, pp. C237-C241.

Soils

The project site is located on unconsolidated and poorly-sorted colluvial (gravity-transported) and alluvial (water-transported) sediments that overly a thick deposit of marine clay.² Portions of the site, including Zelinsky Park and the existing library and parking areas are underlain by clayey fill material, though it is likely that some fill material is present within open areas of the project as well, placed within the wetland area during initial development of the area. In fact, the NRCS soil mapping indicates that the entire project site is underlain by fill.³ Due to the clayey nature of the soils and fill, past uses that have compacted the material, and the likely presence of near-surface groundwater, infiltration rates of the soils on-site are relatively low.

Drainage and flooding

The existing library, parking areas, pedestrian areas adjacent to the building, as well as Zelinsky Park, drain to the Town stormwater drainage system that runs under Tiburon Boulevard and outlets to Raccoon Strait near the Ferry Terminal (Figure IV.B-1). Portions of the northern part of the project site not within Zelinsky Park drain to Railroad Marsh, a pond/marsh feature that serves as a flood control feature for the Mar West (upper and lower) watershed. The water level in the Marsh is controlled by two outlet structures with a minimum elevation of about 6.7 feet (NAVD88), adjustable to up to about 7.7 feet⁴. The primary outlet drains to a culvert that discharges to Raccoon Strait, while the secondary outlet drains south to Belvedere Lagoon. Average tidal elevation at the storm drain outfalls is approximately 5.7 feet NAVD88,⁵ though the stillwater elevation of the 1-percent event within San Francisco Bay is 8.6 feet NAVD88.⁶ Thus the stormwater system is prone to tidal backup at high tides.

CSW-ST assessed the capacity of the storm drain system within the Town of Tiburon, including the pipes to which the project site drains. They identified several short sections with 25-year event⁷ capacity constraints (near the intersection of Beach Road and Tiburon Boulevard) and recommended a program of scheduled replacements to rectify the capacity constraints. All other junctions downstream of the project

² Miller Pacific, 2003, *Initial geotechnical and geologic study, Tiburon Library Expansion, Tiburon, California. Consulting report prepare for Amy Skewes-Cox, Ross, California, 18p.*

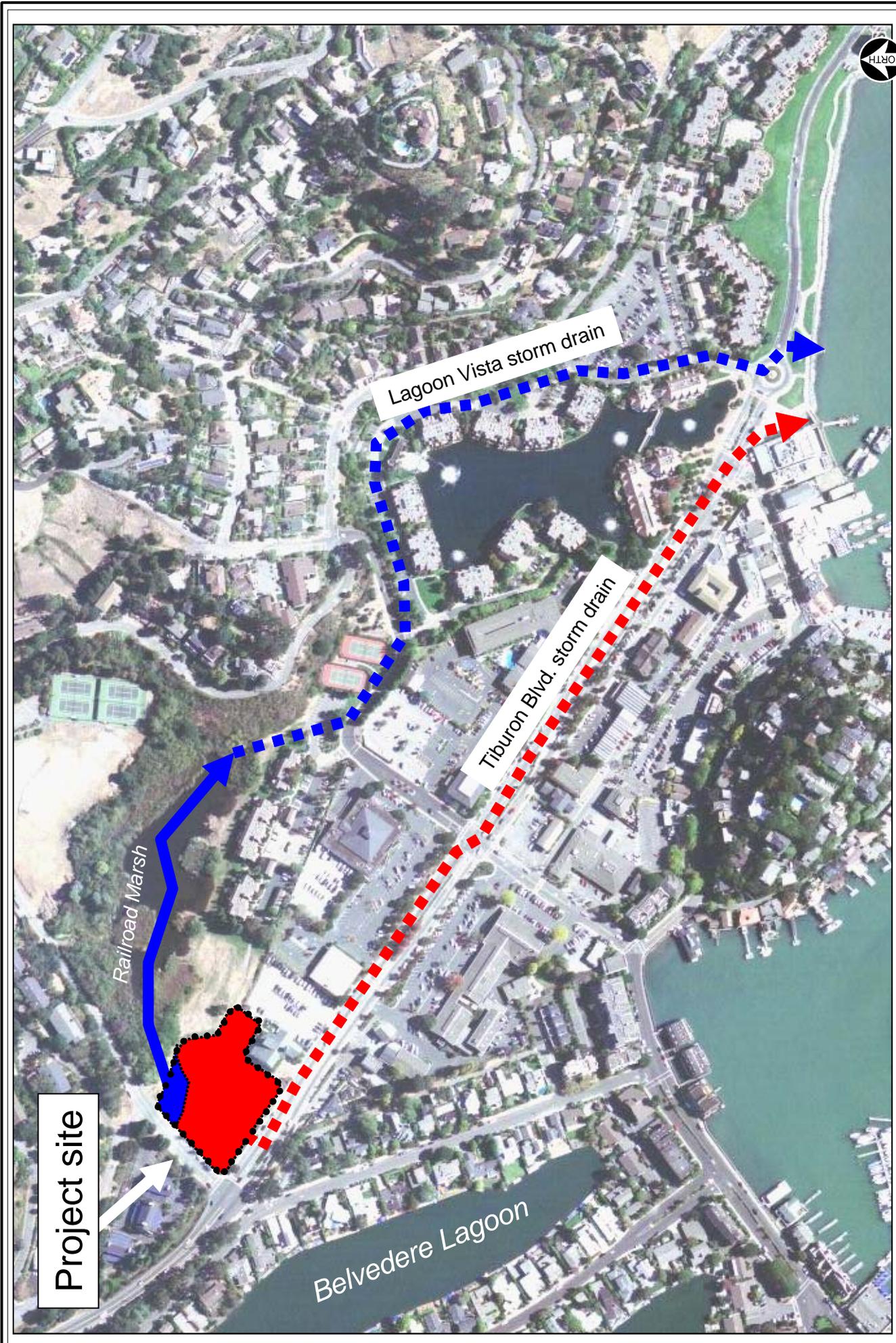
³ Kashiwagi, J.H., 1985, *Soil survey of Marin County, California. United States Soil Conservation Service, 229p. + maps.*

⁴ WRA lists the elevations at 4 and 5 feet MSL respectively. We assume this to be relative to NGVD29 datum. In order to be consistent with the current FEMA use of NAVD88 as the standard datum, we present all elevations in this chapter relative to NAVD88. In Tiburon, NAVD88 equals NGVD29 plus 2.69 feet.

⁵ Town of Tiburon storm drainage master plan, Tiburon, California. Consulting report prepared by CSW/Stuber-Stroeh Engineering Group, Inc., 110p.

⁶ FEMA, 2009b, *Flood Insurance Study, Marin County, California and incorporated areas. Volume 1 of 2, effective May 4, 2009, 105p.*

⁷ The 25-year event has a 1 in 25 (or 4 percent) probability of occurrence in any given year. The 100-year event has a 1 in 100 (or 1 percent) probability of occurrence in any given year. Event probabilities are based on the long-term rainfall record for the area.



Not to Scale

Figure IV.E-1
Existing Stormwater Drainage Pathways and Facilities

Source: Balance Hydro, March 26, 2010.

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Environmental Planning and Research

site are adequately sized for at least the 25-year event, and almost all others for the 100-year event.⁸ The CSW-ST study did not consider the potential backwater effects of a 100-year event coinciding with a high tide event, so some flooding may still occur downgradient of the project site in the downtown area during these conditions despite the sufficient pipe capacity.

Railroad Marsh serves as a flood detention facility for the Town of Tiburon, designed as part of the Point Tiburon Project in the mid-1980s. The design elevation of the 100-year flood is 9.5 feet NAVD88 in the Marsh;⁹ however the FEMA-designated 100-year flood surface for the area is 11 feet NAVD88 (Figure IV.B-2). The extent of the 11-foot elevation line within the project area is greater than that shown in the FEMA map (Figure IV.B-3). In the early 2000s, a portion of this FEMA-designated flood zone (about 0.05 acre-feet) was filled for the construction of Zelinsky Park.^{10,11}

A portion of the existing library building and parking area are shown as being inside the FEMA flood zone associated with Belvedere Lagoon, with a flood elevation of 9 feet NAVD88 (Figure IV.B-2). The finished floor elevation of the existing building is above the elevation of the 100-year FEMA flood. Flooding can also occur in this area, as in much of the downtown area, associated with very high intensity rainfall events (as opposed to long-duration events) that overwhelm the stormwater system, or by debris blockage of stormwater inlets.

Groundwater

The project site is located on clayey fill overlying Bay Mud. Though no extensive subsurface study has been conducted for this project, ground water is likely present within a few feet of the ground surface (Jensen, 2004). Due to the clayey nature of the underlying material, the low gradient of the site, and the proximity to sea level, groundwater movement beneath the site is likely very low.

Water Quality

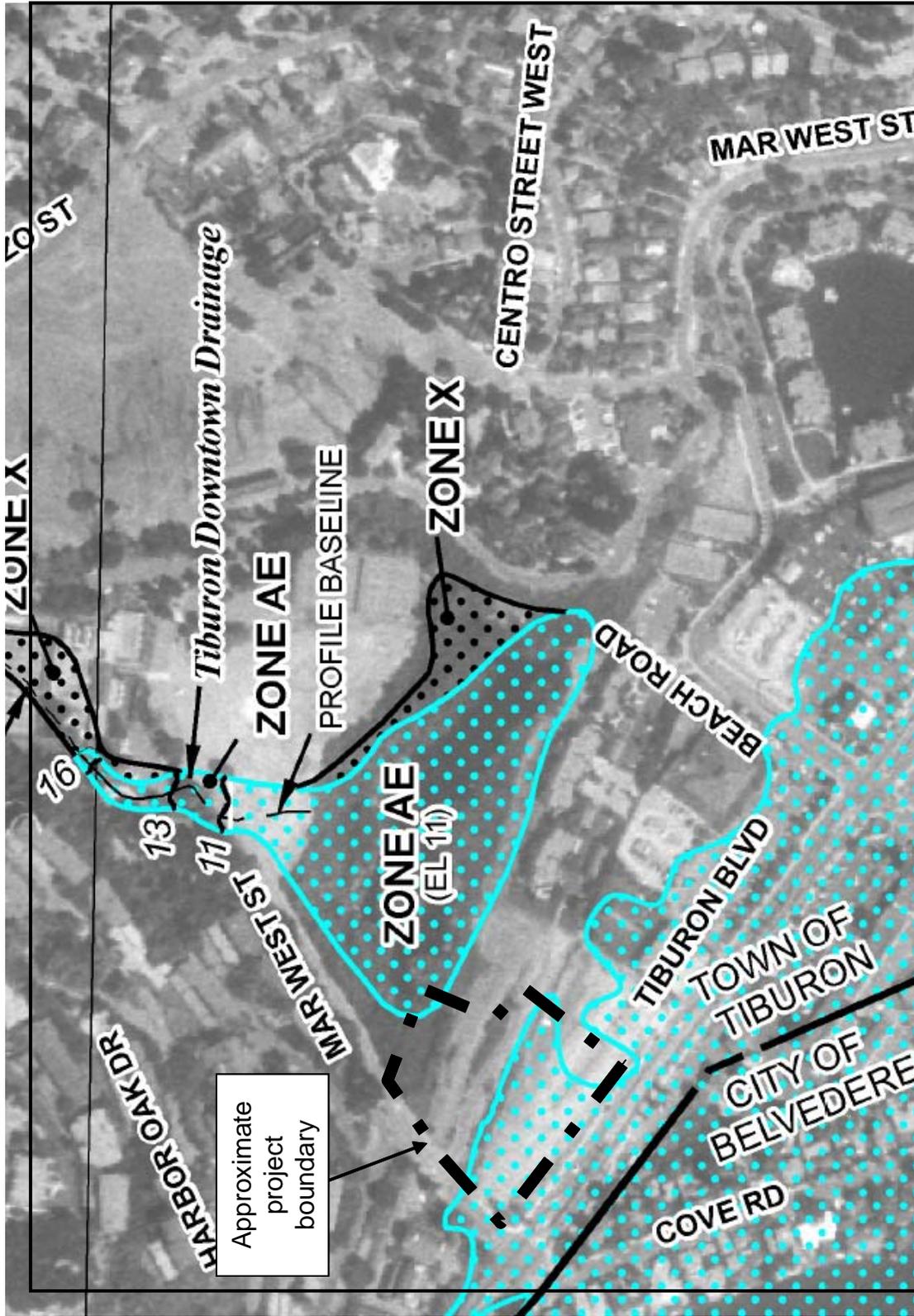
The project site is currently occupied by the existing Library, Town Hall, and parking areas between the two buildings and north of the Town Hall. These impervious areas (with the potential exception of the Town Hall—see paragraph below) drain directly to the Town's stormwater system, without treatment by structural BMPs (such as water quality swales). Likely pollutants from these areas include those commonly found in urban runoff, such as oil, grease, metal brake dust, and trash. Fertilizer and pesticides from existing landscaped areas may also contribute to stormwater runoff contamination.

⁸ Some short sections appear to be undersized for the 100-yr flow, but by less than 5%.

⁹ *Town of Tiburon, 2000, Initial Study, Zelinsky Park/Railroad Marsh floodplain landscape project, 38p.*

¹⁰ *Schwartz, I., 2000, Zelinsky Park/Marsh Flood Retention Pond. Memo to Scott Anderson, Planning Director, from the Tiburon Town Engineer, File No. 6940-E 9908, 1p.*

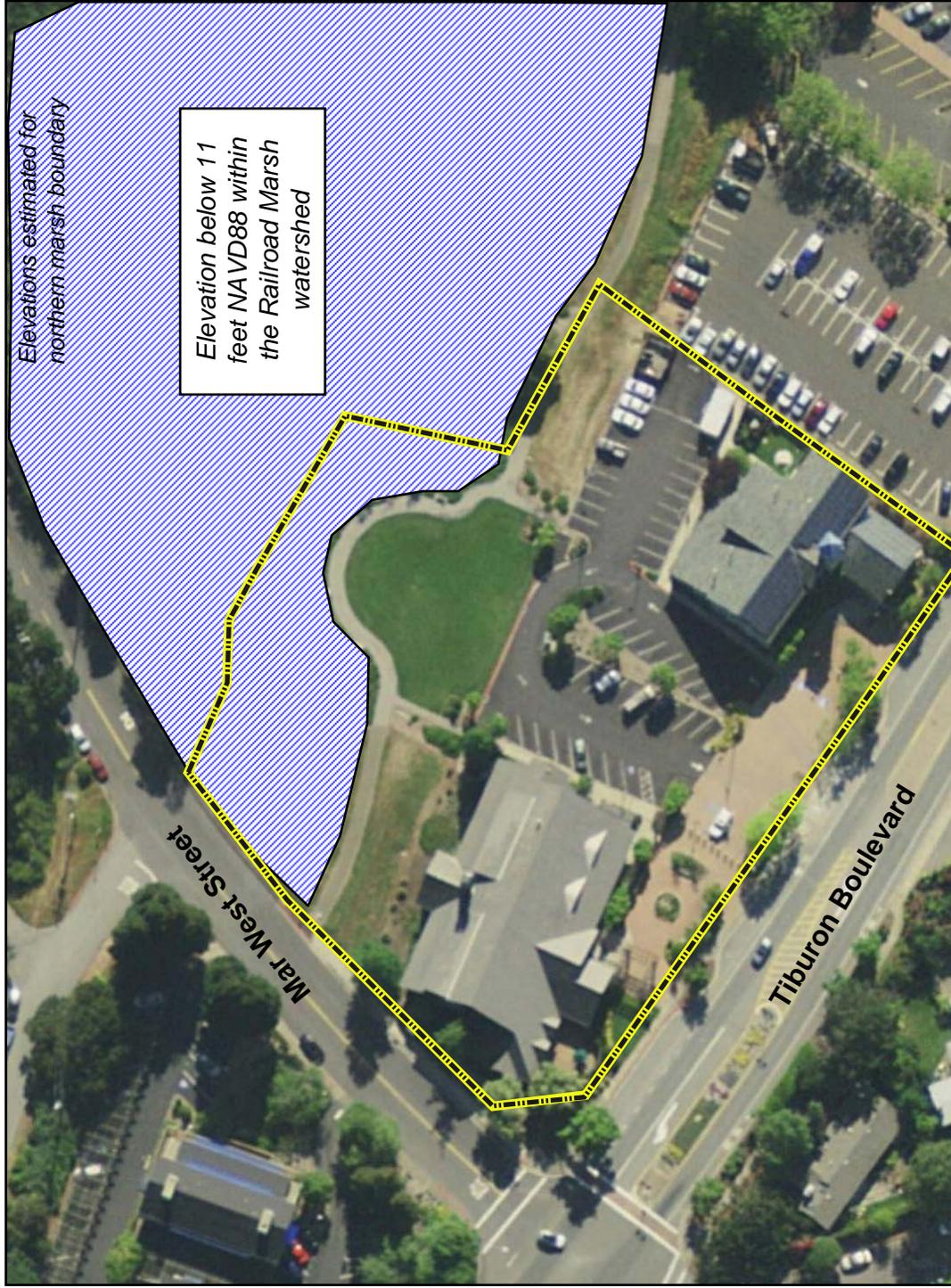
¹¹ *Prior to the 2009 FEMA map updates, FEMA mapping (1977) did not indicate that the 100-year flood event would inundate the area where the Zelinsky Park fill was placed (though it is somewhat difficult to assess due to the change in street layouts since the 1977 map was created). However, the fill for Zelinsky Park was placed in the 100-year flood zone as defined in the Railroad Marsh design studies (Tillson-Bliss and Associates, 1982).*



Source: Balance Hydro, March 26, 2010.



Not to Scale



Source: USGS aerial photograph, 2009

Legend

 Project Site

Source: Balance Hydro, March 26, 2010.



Not to Scale

North of the project site, the Railroad Marsh supports emergent freshwater marsh vegetation (Town of Tiburon, 2000) and had a specific conductance (an index for salinity) of 502 to 765 $\mu\text{S}/\text{cm}$ @ 25C, measured on May 8, 2009. In contrast, specific conductance in seawater is typically 50,000 $\mu\text{S}/\text{cm}$ @ 25C.¹² During storm events, specific conductance in the Marsh likely temporarily drops in response to direct precipitation which is less than 100 $\mu\text{S}/\text{cm}$ @ 25C. The Marsh receives runoff from some off-site urban and residential areas, though much of its watershed is protected open space. Sediment is the primary contaminant to Railroad Marsh (from both urban and non-urban areas), though typical urban contaminants such as those listed above also likely affect water quality in the Marsh.

A grass-lined ditch that parallels the project boundary north of the Town Hall appears to be at least partially connected to runoff from the parking area to the east of the Town Hall (just outside of the project area). Portions of that parking area, and possibly some of the Town Hall roof runoff, drain to a cobble/gravel-filled ditch that runs north toward to the grassy ditch. A drainage inlet present at the western end of the grassy ditch (at the corner of Zelinsky Park) appears to drain to the storm drain system underlying the parking area. The grassy ditch may function as a water quality treatment feature for a portion of the parking area east of the Town Hall, though it is not clear if it was specifically designed for this function.

REGULATORY SETTING

Federal

Clean Water Act

The Clean Water Act (CWA) was enacted by Congress in 1972 and amended several times since its inception. It is the primary federal law regulating water quality in the United States, and forms the basis for several state and local laws throughout the country. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The CWA prescribed the basic federal laws for regulating discharges of pollutants and set minimum water quality standards for all waters of the United States. Several mechanisms are employed to control domestic, industrial, and agricultural pollution under the CWA. At the federal level, the CWA is administered by the U.S. Environmental Protection Agency (EPA). At the state and regional level, the CWA is administered and enforced by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The State of California has developed a number of water quality laws, rules, and regulations, in part to assist in the implementation of the CWA and related federally mandated water quality requirements. In many cases, the Federal requirements set minimum standards and policies and the laws, rules, and regulations adopted by the State and Regional Boards exceed the federal requirements.

¹² Hem, J.D., 1985, *Study and Interpretation of the Chemical Characteristics of Natural Water*, U.S. Geological Survey Water-Supply Paper 2254.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) is responsible for determining flood elevations and floodplain boundaries and distributing Flood Insurance Rate Maps (FIRMs), which are used in the National Flood Insurance Program (NFIP). FIRMs identify the locations of special flood hazard areas, including the 100-year and 500-year floodplains. Federal regulations governing development in a Zone A (100-year) floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations (CFR), which enables FEMA to require municipalities that participate in the NFIP to adopt certain flood hazard reduction standards for construction and development within floodplains.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act establishes the SWRCB and the RWQCBs as the principal state agencies having primary responsibility for coordinating and controlling water quality in California. The Porter-Cologne Act establishes the responsibility of the RWQCBs for adopting, implementing, and enforcing water quality control plans (Basin Plans), which set forth the state's water quality standards (i.e., beneficial uses of surface waters and groundwater) and the objectives or criteria necessary to protect those beneficial uses.

The San Francisco Bay (Region 2) office of the Regional Board guides and regulates water quality in streams and aquifers of the San Francisco Bay area through designation of beneficial uses, establishment of water-quality objectives, and administration of the National Pollutant Discharge Elimination System (NPDES) permit program for stormwater and construction site runoff. The RWQCB is also responsible for Section 401 water-quality certification where development results in fill of jurisdictional wetlands or waters of the U.S. under Section 404 of the Clean Water Act.

San Francisco Bay Water Quality Control Plan (Basin Plan)

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

The Tiburon Peninsula is located in the San Francisco Bay Central planning area. The Basin Plan defines beneficial uses for surface waters and groundwater in its corresponding jurisdiction. Richardson Bay, to which the project area drains, is listed as having the following existing beneficial uses: industrial service supply; ocean, commercial and sport fishing; shellfish harvesting; estuarine habitat; fish migration; preservation of rare and endangered species, fish spawning; wildlife habitat; water contact and non-

contact recreation; and navigation. While beneficial uses have not been designated for the Railroad Marsh, Belvedere Lagoon and Cove, or Raccoon Strait, beneficial uses for Richardson Bay would also apply to the extent that these resources could logically support similar uses. No beneficial uses have been designated for groundwater within the Town of Tiburon.

NPDES Permit Requirements

The 1987 amendments to the Clean Water Act [Section 402(p)] provided for US EPA regulation of several new categories of nonpoint pollution sources within the existing National Pollutant Discharge Elimination Program (NPDES). In Phase I, NPDES permits were issued for urban runoff discharges from municipalities of over 100,000 people, from plants in industries recognized by the U.S. EPA as being likely sources of stormwater pollutants, and from construction activities that disturb more than five acres. Phase II implementation, effective March 10, 2003, extended NPDES urban runoff discharge permitting to cities of 50,000 to 100,000 people, and to construction sites that disturb between one and five acres. The SWRCB Water Quality Order No. 2003-0005-DWQ, adopted April 30, 2003, established the Phase II NPDES General Permit No. CAS000004 to cover Small Municipal Separate Storm Sewer Systems (MS4). Marin County and the Town of Tiburon are designated as Small MS4s and fall under this NPDES General Permit. Enforcement of permit conditions is the responsibility of Regional Board staff assisted by local municipal or county staff.

The NPDES General Construction Permit Requirements apply to clearing, grading, and disturbances to the ground, such as excavation, of more than one acre of land. The project applicant is required to submit a Notice of Intent (NOI) with the State Water Resource Control Board's (SWRCB) Division of Water Quality. The NOI includes general information on the types of construction activities that will occur on the site. The applicant will also be required to submit a site-specific Stormwater Pollution Prevention Plan (SWPPP) for construction activities. The SWPPP will include a description of Best Management Practices (BMPs) to minimize the discharge of pollutants from the site during construction. It must also contain a summary of the structural and non-structural BMPs to be implemented during the post-construction period, pursuant to the nonpoint source practices and procedures encouraged by the San Francisco RWQCB. It is the responsibility of the property owner to obtain coverage under the permit prior to site construction.

The State Board is in the process of revising the Construction General Permit. The latest draft of the new permit was released in May 2009 and the permit is expected to be reissued and adopted in 2009. The new draft permit, in its current form as of the date of this EIR, establishes technology-based numeric action levels (NALs) for pH and turbidity that, if exceeded, would trigger the need for further action. In addition, depending on the level of risk assigned to the project, technology-based numeric effluent levels (NELs) for pH and turbidity discharges would be required. The draft permit requires effluent monitoring and reporting for pH and turbidity in storm water discharges to determine whether NALs have been exceeded and whether the project complies with NELs. All sites would additionally be required to meet new development and redevelopment performance standards to minimize or mitigate hydrologic impacts.

Regional/Local***Marin County Stormwater Pollution Prevention Program (MCSTOPPP)***

Formed in 1993, MCSTOPPP is a joint effort of Marin's cities, towns and unincorporated areas. Their goal is to:

- prevent stormwater pollution
- protect and enhance water quality in creeks and wetlands
- preserve beneficial uses of local waterways
- comply with State and Federal regulations

Though the County and each of the eleven cities and towns carry out their own individual stormwater pollution prevention programs, MCSTOPPP provides for the coordination and consistency of approaches between the individual participants and documents their efforts in annual reports. These reports include information on illegal discharges, street cleaning efforts, creek maintenance, new development, and other issues of concern. MCSTOPPP prepared the *Action Plan 2010* in May 2005, which serves as a stormwater management plan per the NPDES permit requirements and describes planned MCSTOPPP activities for the period July 2005 through June 2010. MCSTOPPP has also prepared a planning and design guide for post-construction best management practices.¹³ While MCSTOPPP provides guidance for compliance with NPDES permitting, permit compliance is administered by the specific municipality in which the project is proposed.

Town of Tiburon General Plan (Tiburon 2020)

Tiburon 2020 sets forth policy guidelines for decision making on issues related to development and conservation in the Town of Tiburon. Section IV.F (Land Use and Planning) assesses the consistency of the proposed project with the relevant goals and policies of Tiburon 2020. Section IV.F (Land Use and Planning) assesses the consistency of the proposed project with the relevant goals and policies of Tiburon 2020 related to hydrology and water quality.

Tiburon Municipal Code

The Code of the Town of Tiburon, Title VI, Chapter 20A, describes the Town's urban runoff pollution prevention ordinance. The ordinance is intended to:

¹³ *MCSTOPPP, 2008, Stormwater quality manual for development projects in Marin County, a low impact development approach; Guidance for applicants. Compliance manual prepared by the Marin County Stormwater Pollution Prevention Program in cooperation with Marin County and Marin's cities and towns, multi-paged.*

- 1.) eliminate discharges other than storm runoff to storm drains or watercourses,
- 2.) control discharges to storm drains or watercourses from spills, dumping or disposal of materials other than storm water, and
- 3.) reduce pollutants in stormwater discharges to the maximum extent practicable.

Article II of Chapter 20A describes the specific discharge regulations and requirements. Of particular relevance to the Library project is Section II 20A-10 “Reduction of pollutants in stormwater”, which outlines best management practices to minimize the inputs of trash, construction-related contaminants, and stormwater volume to the municipal storm drain system.

In addition, the Code includes a provision (Title IV, Chapter 13D, Section 20.a.1) that “prohibit[s] encroachments, including fill, new construction, substantial improvement, and other new development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in the base flood elevation during the occurrence of the base flood discharge.”

ENVIRONMENTAL IMPACTS

The proposed project would normally have a significant effect on the environment if it would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite;
- 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;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map;

- Place within a 100-year flood hazard area structures that would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

Project Impacts

Impact HYDRO-1: Implementation of the proposed project may violate water quality standards without appropriate mitigation. (LTS/M)

Construction and grading activities would expose areas susceptible to erosion that could result in sedimentation in the Railroad Marsh or in Richardson Bay via the Town's stormwater system. In addition, petroleum products (gasoline, diesel, kerosene, oil, grease), hydrocarbons from asphalt paving, paints, solvents, detergents, fertilizers, pesticides, litter and other contaminants associated with construction activities may be discharged to the Railroad Marsh or municipal storm drain system. Tiburon Municipal Code Chapter 20A-10 requires the implementation of appropriate BMP's to prevent discharge of construction wastes or contaminants from construction material, tools and equipments into the Town's storm water system (which would include Railroad Marsh). The Code also requires that building permit applications include appropriate erosion and sedimentation control measures, following the guidance provided in the "Standard for Erosion and Sedimentation Control" and the "Erosion and Sedimentation Control Handbook" published by the Association of Bay Area Governments. In addition, the SWRCB requires preparation of a SWPPP and erosion control plan for all grading projects greater than one acre. Because grading associated with this project will occur adjacent to the existing Railroad Marsh, particular emphasis will be needed in the SWPPP to minimize the potential for construction-related pollutants to enter the marsh. Implementation of these measures would reduce construction-related water quality impacts to less-than-significant levels.

Following the construction phase, the most likely stormwater runoff contaminants are those typical of urban landscapes—oil and grease, fertilizers, insecticides and rodenticides, trace metals (from brake dust), pathogens associated with pet waste, and litter. Though many of these contaminants are already likely present in stormwater runoff from the project site, the proposed project includes additional paved surfaces and parking areas (a net increase of one parking space) that would contribute additional contaminants if appropriate mitigation is not provided. The project site currently has 39,210 square feet of impervious surfaces, including parking areas, rooftops, and walkways. The proposed project would include a total of 43,500 square feet of paved and roof surfaces, an increase of 4,290 square feet. However, the project plans to incorporate 17,200 square feet of permeable pavement within the parking lot, resulting in a net decrease in impervious surfaces.

In addition, one bioretention basin and one flow-through planter box is proposed as part of the project. The bioretention feature would be located southeast of the proposed parking lot, and would treat

stormwater runoff from the eastern portion of the parking area, with a catchment area of 2,500 square feet (Figure IV.E-4). The flow-through planter would treat roof runoff from the library expansion building,¹⁴ with a catchment area of 8,630 square feet (Figure IV.E-4)¹⁵ The treatment provided by these two features, along with the use of 17,200 square feet of pervious pavement and resulting decrease in and attenuation of impervious surface runoff, would result in improved treatment of stormwater compared to existing conditions, and therefore the potential effects to on-going stormwater runoff quality are considered less-than-significant. Because specific designs have not yet been completed, however, Mitigation Measure HYDRO-1b is included to guide bioretention design.

Mitigation Measure HYDRO 1a. Prepare and implement an erosion control plan and SWPPP for the construction phase of the project, in accordance with NPDES permit requirements. The SWPPP will describe methods for preventing discharge of construction and post-construction related pollutants to the Town's municipal stormwater system and to Railroad Marsh. The plan should outline specific methods for minimizing exposure of graded areas adjacent to Railroad Marsh, and construction activities for portions of the project adjacent to the Marsh shall be limited to the dry season (May through September).

Mitigation Measure HYDRO 1b. Prepare a Stormwater Control Plan (SCP), following the procedures outlined by MCSTOPPP. The SCP shall include the project SWPPP (see Mitigation Measure HYDRO-1a above) as well as a description of post-construction BMPs being implemented. Bioretention features will be designed following the guidance found in MCSTOPPP's stormwater quality manual and the California Storm Water BMP Handbook for New and Redevelopment.¹⁶ If it is determined that pervious pavement is not feasible for the parking area, additional bioretention features or area will be included to treat *all* impervious surfaces within the new parking area, and the library bioretention features shall be designed to treat all rooftop area of the *new* library expansion. Bioretention facilities and areas of pervious pavement shall include an underdrain system due to the clayey nature of the soil on-site as well as the presence of near-surface groundwater.

With implementation of Mitigation Measure HYDRO-1a and HYDRO-1b this impact would be *less than significant*.

¹⁴ Roof runoff is generally considered clean and does not need to be treated for water quality. However, bioretention for the roof area of the new building is proposed to help reduce increases in stormwater runoff volume.

¹⁵ BKF, 2010, Tiburon Library memorandum dated March 12, 2010.

¹⁶ California Storm Water Quality Task Force, 2003, California Storm Water Best Management Practices Handbooks, 3 volumes.

Impact HYDRO-2: Implementation of the proposed project would not 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. (LTS)

The project site is highly impervious under existing conditions, and much of the project area that is not already paved or otherwise covered consists of highly compacted, clayey fill material with a relatively low infiltration rate. In addition, though groundwater is present at relatively shallow depths beneath the project site, the underlying material is not considered a regionally significant aquifer. While the additional impervious area proposed for the project may reduce infiltration to a slight degree, this reduction is not considered significant as no beneficial uses for the groundwater have been identified. In addition, the project does not propose sub-grade structures that would significantly obstruct the flow of groundwater at the project site. The potential impact is considered *less than significant* and no mitigation is required.

Impact HYDRO-3: Implementation of the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site. (LTS)

Under post-project conditions, the project site would drain almost entirely to the existing municipal storm drain system, which drains directly to San Francisco Bay. As such, siltation as a result of erosion of downstream watercourses is not a concern. A small portion of the project site that currently drains to the Railroad Marsh would be converted to a parking area that drains to the municipal stormwater system. This will result in a slight reduction in runoff to the Railroad Marsh from the project site, and will not result in increased siltation in the Marsh. The potential impact is considered *less than significant* and no mitigation is required. (Note that construction-phase impacts are addressed in Impact HYDRO-1 above.)

Impact HYDRO-4: Implementation of the proposed project may substantially alter the existing drainage pattern of the site or area, resulting in an increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite. (LTS/M)

Implementation of the proposed project would replace an existing parking lot with a primarily grass-covered park, and would add a new parking area (replacing primarily pervious surfaces of the existing Zelinsky Park and neighboring grassy area) of approximately 21,760 square feet. As described above, however, the use of pervious pavement for much of the parking lot would result in a net decrease in impervious surfaces of about 13,000 square feet.¹⁷

Tiburon General Plan Provision *SE-12* requires that post-development peak flow rates for the 2- and 100-year events be equal to or less than pre-development rates. While the use of permeable pavement would reduce the overall imperviousness of the site, there will be changes in stormwater drainage areas and routing that may exceed the capacity of individual drainage lines. For example, approximately 4,800

¹⁷ BKF, 2010, Tiburon Library memorandum datedmARCH 12 2010.

square feet of the area underlying the proposed parking lot currently drains to the Railroad Marsh, and will drain south to the stormwater system under post-project conditions, resulting in additional surface area draining to the municipal stormwater system.

Bioretention areas and the use of permeable pavement are likely to reduce the peak flow effects of the project for the 2-year event. Still, increases in flow during the 100-year event are possible despite these measures, as pervious pavement and stormwater retention BMPs are not typically effective at controlling flow peaks and volumes during large and/or very intense events. Due to the existing high imperviousness of the site and the clayey nature of the underlying fill material, the impact is not likely to be large, but could induce or exacerbate flooding within the downtown area. Compliance with Tiburon General Plan Provision SE-12 would reduce this impact to a less-than-significant level. Mitigation measures HYDRO-4a and HYDRO-4b are included to guide detention design and confirm compliance with Provision SE-12.

Mitigation Measure HYDRO-4a: Upon completion of the final project design and prior to Town approval, the applicant shall complete a site drainage study to quantify the effects of the increased impervious surfaces on the 100-year peak runoff from the project site. If the study identifies increases in 100-year peak flow, specific design measures shall be incorporated into the project to reduce peak flow rates for the 100-year event to at or below pre-project levels. Design measures to control runoff may include the expansion of areas underlain by permeable pavement, reduction in impervious surface area, and/or enlarging/adding water quality or other stormwater control features to provide additional detention. The results of this study shall be submitted to the Town of Tiburon for approval.

Mitigation Measure HYDRO-4b: The final drainage map for the Tiburon Library project shall be reviewed by the Town engineer to verify that where the project has increased the drainage area to any individual storm drain, that drain has sufficient capacity to receive the estimated increase in flows without flooding. If individual storm drain capacity is not sufficient, then potential flow to that storm drain shall be reduced to below capacity by increasing pervious surfaces, incorporating swales or other means of detention/retention, or rerouting flows to storm drains that have sufficient capacity.

With implementation of Mitigation Measure HYDRO-4a and HYDRO-4b this impact would be *less than significant*.

Impact HYDRO-5: Implementation of the proposed project may 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. (LTS/M)

See discussion of Impact HYDRO-4 above for discussion of stormwater capacity. See discussion of Impact HYDRO-1 above for discussion of water quality impacts. With implementation of these mitigation measures would be *less than significant*.

Impact HYDRO-6: Implementation of the proposed project would not otherwise substantially degrade water quality. (LTS/M)

Potential stormwater quality impacts were addressed above in Impact HYDRO-1, and would be reduced to a less-than-significant level by implementing Mitigation Measures HYDRO-1a and HYDRO-1b. The project would not otherwise substantially degrade water quality. With implementation of these mitigation measures would be *less than significant*.

Impact HYDRO-7: Implementation of the proposed project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map. (NI)

No housing is planned for this project, and there would be no impact.

Impact HYDRO-8: Implementation of the proposed project would place within a 100-year flood hazard area structures that may impede or redirect flood flows. (LTS)

The project proposes to construct a new parking lot overlying most of the existing footprint of Zelinsky Park and the area between the park and Mar West Street to the northwest. The existing surface of Zelinsky Park is at an elevation of just over 10.5 feet NAVD88. The area between the Park and Mar West Street is predominately at an elevation between 8.5 and 9.5 feet NAVD88, approximately 1 to 2 feet above the static water elevation of the Railroad Marsh. This area, along with other low-lying portions adjacent to the Marsh, is intended to provide detention for the Mar West watershed during large events, to minimize flooding in the Downtown sections of the stormdrain system below the Marsh outlet.

The FEMA flood zone for this feature is designated up to 11 feet NAVD88. However, design studies for the Railroad Marsh¹⁸ concluded that a 100-year storm event would be contained within the Marsh (including 1 foot of freeboard) with a minimum berm elevation of 10.5' NAVD88. This is the approximate elevation of the existing footpath that runs through Zelinsky Park and north of the current Library building. (It corresponds to the 98-foot contour on the project elevation datum.) In addition, the Tillson-Bliss study assumed that low urbanization would eventually be present in the upper watershed, but since the time of the study 118 acres of the upper watershed (approximately 60 percent) has been purchased and designated as permanent, undeveloped open space.¹⁹ Thus the Tillson-Bliss study provides a conservative estimate of the 100-year flood peak within the Railroad Marsh at an elevation of 9.5' NAVD88 (97 feet at the project datum).

The proposed parking lot would be constructed predominately at existing grade, though the elevations would be slightly higher in some locations to allow for curbs, and slightly lower in some areas that have been previously filled. The footprint of the proposed parking lot would cover approximately 3,200 square

¹⁸ *Tillson-Bliss and Associates, 1982, Hydrology studies for SP-Tiburon Site, Tiburon Marsh flood plain and storm drain system, 36p*

¹⁹ *Town of Tiburon, 2000, Initial Study, Zelinsky Park/Railroad Marsh floodplain landscape project, 38p*

feet of area below the 100-year flood elevation of 9.5 feet NAVD88. In addition, previous fill would be removed from a portion of the existing Zelinsky Park that would reactivate approximately 1,500 square feet of floodplain area. This would result in a net decrease in active flood area of about 1,700 square feet (less than one percent of the total area at the modeled 100-year surface, and less than 0.5 percent of the 100-year storage volume). Thus, while there would be some fill placed within a FEMA flood zone, the fill would only minimally reduce the capacity of the flood detention system. Considering the conservative nature of the flood estimate, the resulting impact would be *less than significant*.

Impact HYDRO-9: Implementation of the proposed project would not 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. (LTS/M)

The proposed project is not located downstream of any levees or dams, and is therefore not subject to flooding due to dam failure. However, other flooding impacts are potentially significant, as discussed below.

As discussed previously, the proposed library expansion building would be constructed in a FEMA-designated 100-year flood zone associated with Belvedere Lagoon. The finished floor elevation of the proposed building would be 10.9 feet NAVD88, which is above the 100-year flood level associated with the Belvedere Lagoon.

Within the Railroad Marsh watershed, the FEMA flood zone elevation for a 100-year event that occurs at high tide is shown at 11 feet NAVD88. As discussed above, the Railroad Marsh hydrology study,²⁰ estimated that a berm elevation of at least 10.5 feet NAVD88 would provide a 1-foot freeboard above the 100-year flood surface. The existing topographic map shows that the elevation of the berm between the flood zone and the library (the existing pathway) is between 10.5 and 11.5 feet NAVD88, separating the detention basin from the existing Library building. The proposed grading plan for the project shows that the top of the curb would at 10.4 NAVD88 at the lowest point along the northern side of the parking area. East of the proposed parking lot, the minimum elevation of the berm is shown at about 9.5 feet NAVD88.

Though the 100-year flood elevation provided by Tillson-Bliss is conservative, as discussed above, lowering the berm between the Marsh and the project site could expose the project area to flooding from the Marsh during events larger than the 100-year event. Providing a berm between the Marsh and the library of no less than 10.5 feet NAVD88 would maintain the existing elevation of flood protection and the impact would therefore be *less than significant*.

Mitigation Measure HYDRO-9: The project shall incorporate a continuous berm at no less than 10.5 feet NAVD88 in elevation to maintain the existing separation between the Railroad Marsh and the library building. The elevation of the landscaped area east of the proposed parking lot shall be raised so that the crest of the area is the same elevation as the existing pathway east of the project site (10.5 feet NAVD88).

²⁰ *Tillson-Bliss and Associates, 1982, Hydrology studies for SP-Tiburon Site, Tiburon Marsh flood plain and storm drain system, 36p*

With implementation of Mitigation Measure HYDRO-9 this impact would be *less than significant*.

Impact HYDRO-10: Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow. (LTS)

Marin County has no history of significant damage caused by tsunami or seiche,²¹ but a severe seismic event (along the coast of Alaska, for example) could, given the right conditions, trigger a tsunami that may affect the shoreline areas of the Bay, including eastern Marin County.²² Also, because the Bay functions somewhat as an enclosed basin, it is susceptible to seiche, particularly ones triggered by seismic activity.

Recently-released tsunami inundation maps²³ indicate that the proposed project is located in an area subject to inundation by tsunami, as is much of the area of downtown Tiburon (see Figure IV.E-5). Potential maximum wave run-up is shown to include the entire project site as well as the Railroad Marsh, suggesting that the inundation elevation would likely be slightly higher than the 10.5 feet NAVD88 elevation berm around the Railroad Marsh. The proposed library has a finished floor elevation of 10.9 feet NAVD88, and thus would not experience substantial inundation during a tsunami. Other areas within the project site, including the plaza and parking lot, would be at elevations at or above 8.5 feet NAVD88, and may therefore experience inundation of up to two to three feet during a maximum wave run-up event. Therefore there is a risk of property loss, injury, or death at the project site as a result of tsunami or seiche.

Tsunami cannot be prevented, nor is it feasible to provide structural mitigation to protect from wave run-up, given the rarity of such events. Tsunami warning systems, evacuation planning, and public information campaigns are the established mitigation practices for tsunami,²⁴ and are often best handled on a local or regional (rather than project) scale. Because the inundation maps were only recently released for Marin County, the County and the Town of Tiburon have not yet incorporated tsunami mitigation into disaster planning documents.²⁵

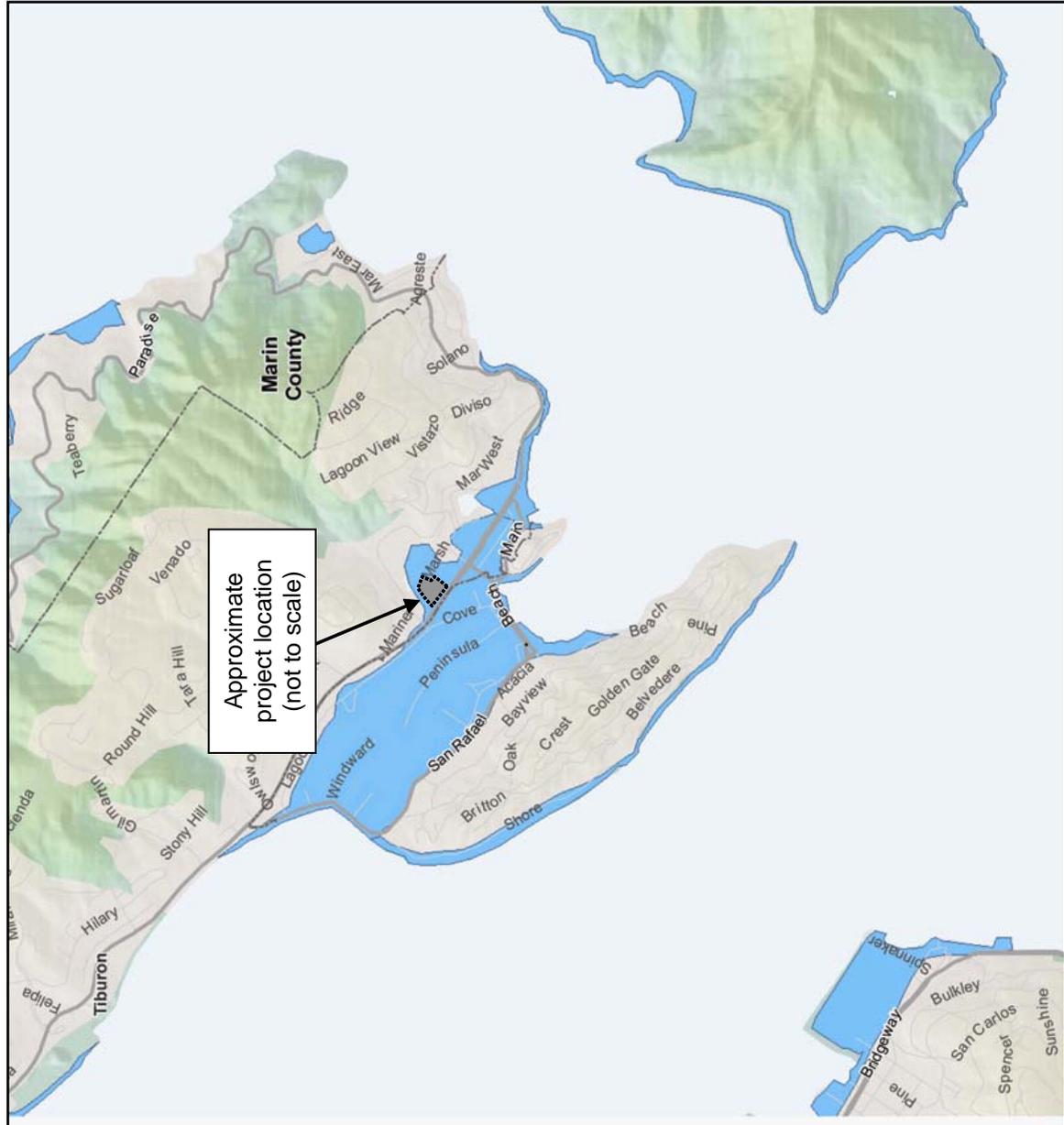
²¹ *Marin County Sheriff Office of Emergency Services (MCSOES), 2006, Marin County operational area hazard mitigation plan. p.40*

²² *San Francisco Bay Conservation and Development Commission, 2006, San Francisco Bay Coastal Management Program assessment and strategy. Report prepared pursuant to the provisions of Section 309 of the federal Coastal Zone Management Act for the Office of Ocean and Coastal Resource Management, NOAA, US Dept. of Commerce, p36-37.*

²³ *California Emergency Management Agency (CalEMA), California Geologic Survey, and the University of Southern California, 2009, Tsunami inundation map for emergency planning, San Rafael and San Quentin Quadrangles.*

²⁴ *California Office of Emergency Services (CA OES), 2007, State of California multi-hazard mitigation plan. p279-280.*

²⁵ *Association of Bay Area Governments (ABAG), 2006, Local Hazard Mitigation Plan (LHMP), Town of Tiburon. Memorandum available at <http://quake.abag.ca.gov/mitigation/Tiburon-Annex.pdf>, 5p.*



**Tsunami Inundation
Emergency Planning
Map for the San Francisco
Bay Region**

 Tsunami Inundation Area

 Urbanized Area

Shaded to show topographical relief



Scale: 1 inch = 0.38 miles

This tsunami inundation planning map for the San Francisco Bay Region is based on modeling a number of potential earthquake sources and hypothetical extreme undersea, near-shore landslide sources.

This data was produced by CalEMA and is intended for local jurisdictional, coastal planning uses only. Data for north coastal Sonoma County is not yet available. For more information visit <http://quake.abag.ca.gov/tsunami>.

Source: California Emergency Management Agency, Coastal Region (2009)

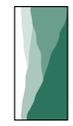
This map is available at <http://quake.abag.ca.gov>

Disclaimer: The California Emergency Management Agency (CalEMA), the University of Southern California (USC), and the California Geological Survey (CGS) make no representation or warranties regarding the accuracy of this inundation map nor the data from which the map was derived. Neither the State of California nor USC shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

ABAG  Geographic Information Systems

Source: <http://gis.abag.ca.gov/>

Source: Balance Hydro, March 26, 2010.



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Environmental Planning and Research

Figure IV.E-5
Tsunami Inundation Emergency Planning Map

As these local plans are updated for Marin County²⁶ and the Town of Tiburon, following the guidelines provided by CA OES and BCDC, they will encompass the project area and reduce the potential impact to ***less than significant*** and no mitigation measures are required.

The project site is not in an area susceptible to mudflows.

CUMULATIVE IMPACTS

The proposed bioretention facilities at the project site will provide stormwater quality treatment of more impervious parking surface than under existing conditions, and is therefore expected to have a cumulative benefit to stormwater quality, thus the potential cumulative water quality effects are considered less-than-significant.

The Town requires that peak flow rates for the 2- and 100-year storm events be no greater than under existing conditions. Compliance with this code, as outlined in Mitigation Measures HYDRO-4a and HYDRO-4b would reduce the potential cumulative flooding impact to a less-than-significant level. There are no natural channels downstream of the proposed project, and thus there are no anticipated cumulative erosive effects due to hydromodification (as a result of alteration in the duration of flows from the site) and cumulative impacts would be ***less than significant***.

²⁶ California Office of Emergency Services (CA OES), 2007, State of California multi-hazard mitigation plan. p279-280.

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IV. ENVIRONMENTAL IMPACT ANALYSIS

F. LAND USE & PLANNING

INTRODUCTION

This section of the Draft EIR describes existing land uses on the project site and in the surrounding area. A regulatory framework is provided in this section describing applicable agencies and regulations related to the proposed project. Potential land use impacts associated with implementation of the proposed project are identified and mitigation measures are recommended, where appropriate. This section also contains a discussion of the consistency of the proposed project with relevant land use policies. However, conflicts between a project and applicable policies do not constitute a significant physical environmental impact in and of themselves; as such, the project's consistency with applicable policies is discussed separately from the physical land use impacts associated with the project.

Preparation of this section used information from various sources including a site visit, the Town of Tiburon General Plan (Tiburon 2020), Town of Tiburon Municipal Code, Downtown Tiburon Design Handbook, and Town of Tiburon Bicycle and Pedestrian Master Plan.

ENVIRONMENTAL SETTING

Regional and Local Setting

The Town of Tiburon is located in the San Francisco Bay Area within the southern portion of the County of Marin. Tiburon is located on a peninsula which extends from southeastern Marin County into San Francisco Bay, approximately seven miles north of the City of San Francisco. Neighboring cities include Belvedere to the south, Corte Madera to the north, and Mill Valley to the west. Regional access to Tiburon is provided by U.S. Highway 101. Tiburon Boulevard on the south and Paradise Drive on the north provide access to Tiburon from U.S. Highway 101.

Tiburon is predominantly a low-density residential community. Downtown Tiburon is the main commercial area. In addition to residential and commercial uses, Tiburon includes parks and open space areas including the Middle Ridge, and Old St. Hilary's Open Space Preserve (all located in the hilly spine of the Town) and 726 acres of the 740-acre Angel Island State Park (which is located in the San Francisco Bay, but within the Town of Tiburon corporate limits). Other open space areas include Richardson Bay Lineal Park, Shoreline Park, several mini-parks, Paradise Cay Park (State of California) and private open space throughout the Town. Existing land use acreages in Tiburon are shown in Table IV.F-1.

**Table IV.F-1
Existing Land Use, Tiburon Planning Area, 2004**

Land Use	Acres
Residential	1,425
Single-Family Residential	1,280
Two-Family Residential	35
Multi-Family Residential	110
Commercial	60
Public/Quasi-Public	115
Parks & Open Space	910
Angel Island State Park	725
Vacant	430
Total Planning Area	3,665
<i>Source: Tiburon 2020, September 2005, at page 2-1.</i>	

Project Site

The project site is located near the western shore of the San Francisco Bay in the southern part of the Town. The project site is located at 1501 and 1505 Tiburon Boulevard on portions of four assessor parcels near the intersection of Tiburon Boulevard with Mar West Street. The project site is immediately bounded by the Railroad Marsh to the northeast, Mar West Street and commercial and residential uses to the northwest, Tiburon Boulevard to the southwest, and Tiburon Town Hall and associated parking to the southeast. Residential uses are located above Mar West Street to the west. Commercial and residential uses are located across Tiburon Boulevard, at the corner of Tiburon Boulevard and Mar West Street, and along Tiburon Boulevard to the southeast of the Town Hall. The Tiburon Peninsula Club and associated parking is located across Railroad Marsh to the north. The Point Tiburon Marsh Condominiums are located approximately 250 feet northeast of the project site.

The project site consists of the following: 1) the existing 0.95-acre Library parcels (APN 058-171-93 and -94); 2) the existing 0.5-acre Town Hall parcel (APN 058-171-92); and 3) an approximately 0.89-acre portion of the Town-owned Zelinsky Park parcel (APN 058-171-62).

The project site is currently developed with the Belvedere-Tiburon Library and Town Hall parking areas, Zelinsky Park, and the existing Belvedere-Tiburon Library building. Zelinsky Park, portions of which were installed and improved in 2001, includes an irrigated turf area, paved pathway, trees and groundcover, benches, and a commemorative photo display dedicated to the Zelinsky family.

REGULATORY SETTING

Federal

There are no federal regulations related to land use and planning that would apply to the proposed project.

State

There are no state regulations related to land use and planning that would apply to the proposed project.

Regional/Local***Town of Tiburon General Plan (Tiburon 2020)***

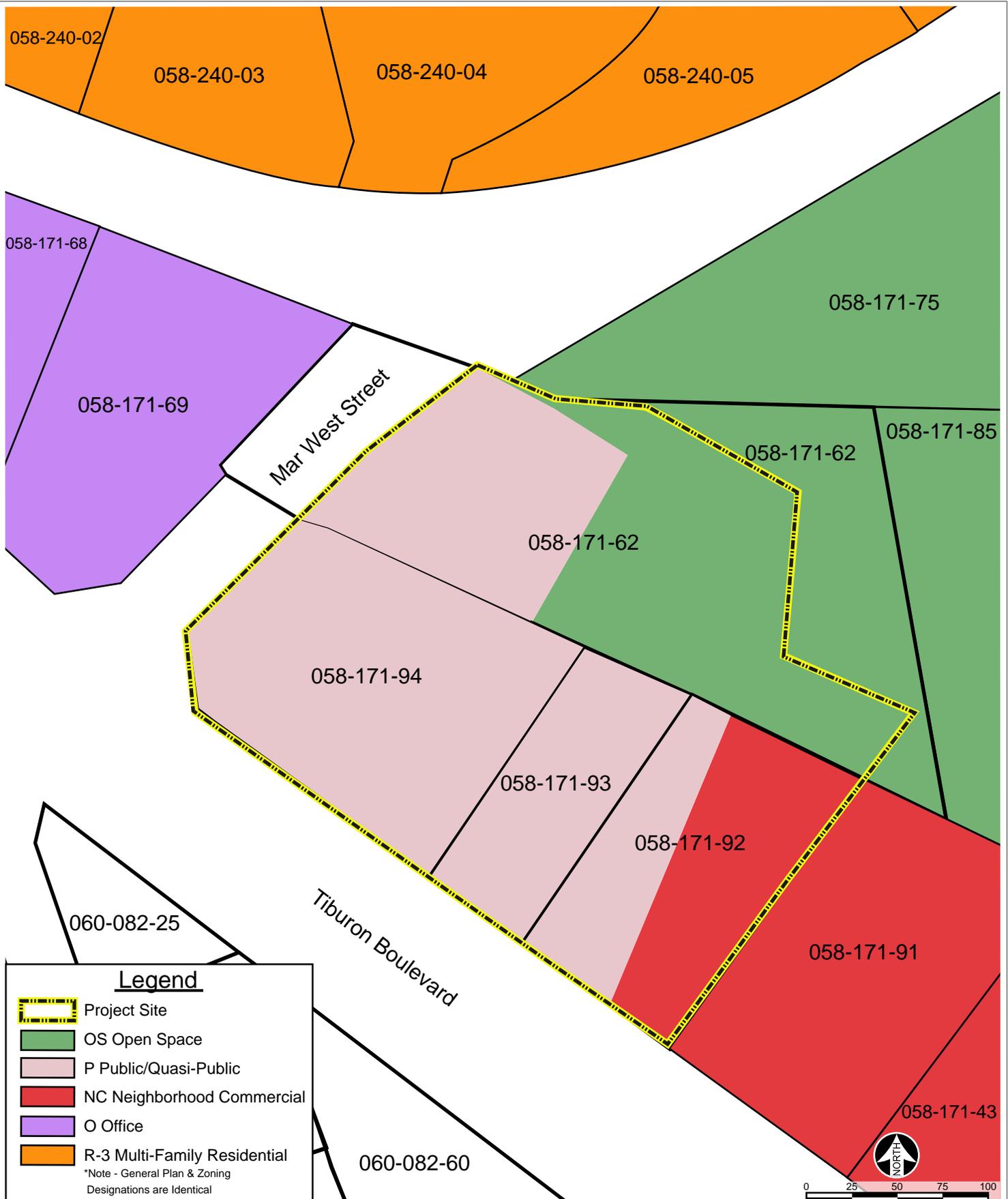
State law requires that each California county and city prepare and adopt “a comprehensive, long-term General Plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency’s judgment bears relation to its planning.” The Town of Tiburon General Plan (Tiburon 2020) describes goals and policies for future growth and development throughout the Town. Tiburon 2020 is intended to be used by decision-makers, developers, and the community as a unified document. Tiburon 2020 is made up of the following eight elements:

- Land Use
- Open Space & Conservation
- Downtown
- Circulation
- Safety
- Noise
- Parks & Recreation
- Housing

Each element contains background information related to existing conditions within the Planning Area as well as the context for subjects within each element. Each element also contains the Goals, Policies, and Programs which are the heart of the General Plan. The project site is located within the area covered under the Downtown Element.

Existing Land Use Designations

Land use for the project site is governed by the Town of Tiburon General Plan (Tiburon 2020) and the Zoning Ordinance of the Town of Tiburon. Existing land use and zoning designations for the site are shown in Figure IV.F-1. Tiburon 2020 designates APN 058-171-94, 058-171-93, and portions of APN 058-171-92 and APN 058-171-62 as Public/Quasi-Public (P). Tiburon 2020 designates the remaining portions of APN 058-171-92 as Neighborhood Commercial (NC) and APN 058-171-62 as Open Space



Source: <http://gis.co.marin.ca.us/MMDataviewer>, April 27, 2009; Tiburon Zoning Map & General Plan Land Use Diagram.

(OS). The split designation for the Town Hall parcel APN 058-171-92 appears to be an inadvertent mapping anomaly.

Public/Quasi-Public (P)

As described in Tiburon 2020, P designations may typically allow educational facilities, governmental and quasi-public building or facilities; utility facilities and similar facilities owned or operated by public/non-profit agencies. The maximum Floor Area Ratio is 1.0.

Open Space (OS)

OS designations are used for lands which are set aside for natural resource protection, public health and safety, scenic qualities, and for passive recreation (such as hiking trails). These areas shall remain undeveloped. The maximum Floor Area Ratio is 0.1 for existing buildings and no new buildings are permitted.

Neighborhood Commercial (NC)

As described in Tiburon 2020, Neighborhood Commercial designations may typically allow, subject to specific zoning regulations, resident-serving commercial uses and offices, and mixed (commercial/residential or office/ residential) uses. Tourist-oriented uses are strongly discouraged.

Policy Consistency

Section 15125(d) of the Guidelines states that EIRs shall discuss any inconsistencies between the proposed project and applicable General Plans in the Existing Setting section of the document. Conflicts between a project and applicable policies do not constitute a significant physical environmental impact in and of themselves; as such, the project's consistency with applicable policies is discussed separately from the physical land use impacts associated with the project. To the extent that physical impacts may result from such conflicts, such physical impacts are analyzed elsewhere in this EIR.

A comparison of the project characteristics with applicable Tiburon 2020 policies is shown in Table IV.F-2.

**Table IV.F-2
Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
<i>Land Use Element</i>	
Goal LU-A: To provide an orderly balance of public and private land uses within convenient and compatible locations throughout the community.	Consistent. Development of the project would expand the existing Belvedere-Tiburon Public Library through construction of a two story addition. The project would maintain Zelinsky Park and the public open space areas currently on the site and would not change the balance of public or private land in the community.

**Table IV.F-2
Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
Goal LU-C: To preserve the character of the Tiburon peninsula through control of the type and location of development.	Consistent. The project would be located adjacent to the Town Hall in the Downtown Planning Area, an area reserved for commercial, residential, government, park, open space, and recreational uses.
Goal LU-D: To ensure that all land uses, by type, amount, design, and arrangement, serve to preserve, protect and enhance the small-town residential image of the community and the village-like character of its Downtown commercial area.	Consistent. See response to Goal LU-C. Additionally, the architectural style and exterior materials of the addition would be similar to the existing Library, which is designed in a craftsman style. The project would also include a Town Plaza and Zelinsky Promenade/Garden Plaza in keeping with the village-like character of the Downtown.
Goal LU-E: To propose future land uses within environmental constraints and consistent with Prime Open Space preservation and other General Plan policies, and the ability of the land and related infrastructure, streets, utilities, public services and other facilities to support such land uses.	Consistent. The project would avoid impacts to Railroad Marsh and would not result in impacts to infrastructure, streets, utilities, public services and other facilities.
Goal LU-F: To preserve and protect Tiburon's views, scenic environment, natural beauty, and open space.	Inconsistent. The project would not result in adverse changes to the visual quality of the site and would provide open space areas and allow access to adjacent open space areas. However, the project would result in a significant unavoidable impact to views of the Tiburon Ridge.
Goal LU-H: To preserve existing neighborhood character and identity.	Consistent. See response to Goal LU-D. Additionally, the architectural style and exterior materials of the project would be similar to and compatible with the existing Library.
Goal LU-I: To encourage intensity of development, density, and house sizes / architectural styles that are consistent and compatible with surrounding neighborhoods.	Consistent. See response to Goal LU-C and Goal LU-D.
Policy LU-1: The Town shall provide for sufficient diversity of land uses such that public, quasi-public, recreational and shopping facilities are conveniently located and available to each resident of the community.	Consistent. Development of the project would expand the capacity and services offered by the existing Belvedere-Tiburon Public Library, which is located in the accessible Downtown Tiburon area.
Policy LU-2: The Town shall limit the type and amount of uses within the Town to those that are compatible with the nature, character and image of the Town as a quiet, small-town residential community with a village-like commercial area.	Consistent. See response to Goal LU-C and Goal LU-D.
Policy LU-3: The Town shall strive to preserve to the greatest extent feasible wildlife habitat in the open spaces, shoreline, marshes, mudflats, woodlands, and other biological sensitive areas.	Consistent. The project would avoid impacts to Railroad Marsh and the sensitive biological areas around it.
Policy LU-4: Future land use decisions shall be consistent with the Land Use Diagram, Proposed Land Use. Densities and intensities specified in the Land	Consistent. Tiburon 2020 designates portions of the project site (APN 058-171-94, 058-171-93, and portions of APN 058-171-92 and APN 058-171-62) as

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Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
<p>Use Element are maximums (except for state-mandated bonuses for affordable housing or other density bonuses specifically provided for in the Housing Element) that may not be achieved if other policies of the General Plan pertaining to environmental, physical or other constraints such as steep slopes, soil instability or limitations on necessary infrastructure require lower densities or intensities.</p>	<p>Public/Quasi-Public (P). This land use category is intended for educational facilities, governmental and quasi-public building or facilities; utility facilities and similar facilities owned or operated by public/non-profit agencies and the maximum Floor Area Ratio (FAR) is 1.0. Tiburon 2020 designates the remaining portion of APN 058-171-62 as Open Space (OS) and APN 058-171-92 as Neighborhood Commercial (NC). These categories are intended for lands that are set aside for natural resource protection, public health and safety, scenic qualities, and for passive recreation (such as hiking trails) and for resident-serving commercial uses, offices, and mixed (commercial/residential or office/residential) uses. Under OS, the maximum FAR is 0.1 for existing buildings, and no new buildings are allowed.</p> <p>The project proposes amendments to General Plan and Zoning designations to portions of parcels APN 058-171-75 and the remaining portions of APN 058-171-62 and APN 058-171-92 to P. The project would expand the Belvedere-Tiburon Public Library, a governmental and quasi-public facility, and increase the existing development intensity on the site from an FAR of 0.46 to an FAR of approximately 0.69, which would be consistent with the P designation.</p>
<p>Policy LU-23: The Town shall support a diversity of commercial uses to serve the shopping and service needs of the community.</p>	<p>Consistent. The project would expand the existing library, which would provide additional public services to meet the needs of the community.</p>
<p><i>Open Space & Conservation Element</i></p>	
<p>Goal OSC-A: To maximize, protect, preserve and enhance the Town's unique open space and natural beauty.</p>	<p>Consistent. The project proposes restoration of the areas where Zelinsky Park would be relocated. Various project components (parking area, paths) would be sited in a manner that maximizes, protects, and preserves open space areas and avoids impacts to Railroad Marsh and the sensitive biological areas around it.</p>
<p>Goal OSC-B: To provide and permanently preserve as much open space as possible to protect shorelines, open water, wetlands, significant ridgelines, streams, drainageways, riparian corridors, steep slopes, rock outcroppings, special status species and their habitat, woodlands, and areas of visual importance, such as views of and views from open space.</p>	<p>Inconsistent. The project would permanently preserve open space areas on the site and avoid impacts to Railroad Marsh and the sensitive biological areas around it. However, although the project would not affect views of Tiburon Ridge from the Library addition, the parking area, Zelinsky Park, or other public spaces on the project site, it would result in a significant unavoidable impact to views of the Tiburon Ridge from Tiburon Boulevard.</p>
<p>Goal OSC-C To permanently protect to the maximum extent feasible, the unique open space character of the Town which is attributable to its large amounts of undeveloped land and open water.</p>	<p>Consistent. See response to Goal OSC-A. The project would maintain areas of public open space through the relocation of Zelinsky Park and restoration of some areas of the project site to an undeveloped state.</p>

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Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
Goal OSC-D: To permanently protect as conservation areas, to the maximum extent feasible, all lands and other areas in the public trust.	Consistent. See response to Policy LU-3 and Goal OSC-A.
Policy OSC-E: To manage the Town's open space for the benefit of the entire community.	Consistent. The project would maintain areas of public open space through the relocation of Zelinsky Park and restoration of some areas of the former Zelinsky Park to an undeveloped state.
Policy OSC-F: To preserve and improve the quality of the environment through resource restoration and conservation, management, and pollution control.	Consistent. The project includes restoration of some areas of the project site to an undeveloped state, as well as sustainable design goals and potentially certification with the United States Green Building Council LEED program. The project would also include bioretention areas to filter runoff and to recharge groundwater.
Policy OSC-4: Public or private open space shall be permanently protected. It is the Town's general policy that publicly-owned open space land will not be traded or sold.	Inconsistent. Although the project includes public open space features; e.g., the relocation of Zelinsky Park and Town Plaza and Zelinsky Promenade/Garden Plaza, the project does propose the transfer of Town-owned open space to the Library for construction of the parking lot and other project components.
Policy OSC-16: The Town shall preserve and enhance the diversity of wildlife and aquatic habitats found in the Planning Area bayfront lands, including tidal marshes, seasonal marshes, lagoons, wetlands, and low-lying grasslands over historical marshlands.	Consistent. The project would permanently preserve open space areas on the site and avoid impacts to Railroad Marsh and the sensitive biological areas around it. Additionally, the project includes restoration of some areas of the former Zelinsky Park to an undeveloped state.
Policy OSC-17: Development shall not encroach in sensitive wildlife habitats, limit normal range areas, or create barriers to wildlife that cut off or substantially impede access to food, water, or shelter, or cause damage to fisheries or fish habitats. Access to environmentally sensitive marshland and adjacent habitat shall be restricted, especially during spawning and nesting seasons.	Consistent. See response to Policy LU-3, Goal OSC-A, and Policy OSC-16. See Section IV.D, Biological Resources, for a complete discussion.
Policy OSC-18: Freshwater habitats in the bayfront areas associated with freshwater stream and small former marshes should be preserved and/or expanded so that the circulation, distribution, and flow of fresh water supply are facilitated.	Consistent. See response to Policy LU-3, Goal OSC-A, and Policy OSC-16. See Section IV.D, Biological Resources, for a complete discussion.
Policy OSC-19: Those areas underlain by deposits of "young muds" should be reserved for water-related recreational opportunities, habitat, open space, or limited development subject to approval by the Corps of Engineers and other trustee agencies.	Consistent. See response to Policy LU-3, Goal OSC-A, and Policy OSC-16. See Section IV.D, Biological Resources, for a complete discussion.
Policy OSC-20: Buffer zones of at least 100 feet shall be provided, to the maximum extent feasible, between development and wetland areas.	Inconsistent. Although the project would not result in direct or indirect impacts to wetlands, it would not provide a buffer of 100 feet between the project and wetland areas.
Policy OSC-21: Development and construction shall	Consistent. The project would comply with all federal

**Table IV.F-2
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Applicable Goal/Policy	Consistency
comply with all federal and state regulations regarding jurisdictional waters and wetlands.	and state regulations regarding jurisdictional waters and wetlands. See Section IV.D, Biological Resources, for a complete discussion.
Policy OSC-24: Areas defined as floodplain should serve the dual purpose of habitat and flood protection.	Consistent. See response to Policy LU-3, Goal OSC-A, and Policy OSC-16. See Section IV.D, Biological Resources and IV.E. Hydrology and Water Quality, for a complete discussion.
Policy OSC-25: A diversity and abundance of wildlife and marine life shall be protected and maintained. The Town shall strive to preserve and protect to the greatest extent feasible wildlife habitat in the open spaces, shorelines, marshes, mudflats, and other biologically sensitive areas.	Consistent. See response to Policy LU-3, Goal OSC-A, and Policy OSC-16. See Section IV.D, Biological Resources, for a complete discussion.
Policy OSC-26: To the maximum extent feasible, and as required by federal and state laws, development and construction shall not affect special status species or special communities.	Consistent. See response to Policy LU-3, Goal OSC-A, and Policy OSC-16. See Section IV.D, Biological Resources, for a complete discussion.
Policy OSC-28: Principal vista, view points, and view corridors on land subject to development shall be identified and preserved to the maximum extent feasible.	Inconsistent. The project would not affect views of Tiburon Ridge from the Library addition, the parking area, Zelinsky Park, or other public spaces on the project site. However, it would result in a significant unavoidable impact to views of the Tiburon Ridge from Tiburon Boulevard.
Policy OSC-29: Open Space views from key roadways, including Tiburon Boulevard, Trestle Glen Boulevard, and Paradise Drive, shall be protected through the permitting process.	Inconsistent. See response to Policy OSC-28.
Policy OSC-30: Development shall be encouraged in areas where it least interferes with views of and views from open space to the maximum extent feasible.	Inconsistent. See response to Policy OSC-28.
Policy OSC-31: The preservation of visual qualities, views, and the view potential of the natural and built environment shall be a major consideration of the Town in any development project review.	Inconsistent. The project would permanently preserve open space areas on the site and preserve the visual quality, views, and view potential on the site. However, although the project would not affect views of Tiburon Ridge from the Library addition, the parking area, Zelinsky Park, or other public spaces on the project site, it would result in a significant unavoidable impact to views of the Tiburon Ridge from Tiburon Boulevard.
Policy OSC-32: The Town shall protect visual access to the bayfront and scenic vistas of water and distinct shorelines through its land use and development review procedures, to the greatest extent feasible.	Consistent. The project would not result in impacts to the bayfront, scenic vistas of water, or distinct shorelines
Policy OSC-33: Protected trees, as defined in the Municipal Code, tree stands, and tree clusters shall be preserved to the maximum extent feasible.	Consistent. The existing trees along Tiburon Boulevard would be preserved. The existing mature tree and narrative describing the importance of the Zelinsky family to the area would be maintained. The project does not propose the removal of any protected trees. See Section IV.D, Biological Resources, for a complete

**Table IV.F-2
Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
	discussion.
Policy OSC-34: The Town shall protect natural habitat, and natural wood areas shall be preserved to the maximum extent feasible.	Consistent. See response to Policy LU-3, Goal OSC-A, and Policy OSC-16. See Section IV.D, Biological Resources, for a complete discussion.
Policy OSC-35: To the maximum extent feasible, grading shall be kept to a minimum and every effort shall be made to retain the natural features of the land including ridges, rolling landforms, knolls, vegetation, trees, rock outcropping, and water course.	Consistent. Grading on the site would only be required to accommodate the proposed building, parking area, and to relocate Zelinsky Park and connect the existing pathway to the Zelinsky Promenade/Garden Plaza. The project grading would not impact natural features of the land including ridges, rolling landforms, knolls, vegetation, trees, rock outcropping, and water courses.
Policy OSC-36: The Town values the retention of natural landforms. Therefore, site grading that is not required by the Town's Landslide Mitigation Policy is to be avoided to the maximum extent feasible.	Consistent. See response to Policy OSC-35.
Policy OSC-37: Where grading is required to stabilize areas of geologic instability, its natural vegetation and habitat shall be restored to the graded area to the maximum extent feasible.	Consistent. Grading would blend with the natural grade on the project site.
Policy OSC-38: Where grading is required, it shall be performed in a manner which minimizes, to the maximum extent feasible, the impact on adjacent properties, water quality, and air quality.	Consistent. See response to Policy OSC-35.
Policy OSC-39: Slope created by grading shall be at a slope angle determined to have long-term stability for the materials being used, not exceeding 30 percent wherever possible. Final contours and slopes shall reflect natural land features, including natural vegetation.	Consistent. The project would not require grading of slopes in excess of 30 percent.
Policy OSC-40: The visual impact of retaining walls and similar engineering elements shall be reduced in size and scope to the maximum extent feasible by minimizing their use and requiring appropriate visual screening.	Consistent. The project does not propose any retaining walls.
Policy OSC-41: The Town shall encourage conservation and education uses of its public open space lands.	Consistent. The project would include the Zelinsky Park interpretive exhibit and open space areas adjacent to Railroad Marsh.
Policy OSC-42: The Town may authorize or provide conservation and education facilities, including nature trails, interpretive exhibits, day camps, nature study areas and other related facilities in areas where the impacts on the natural environment will be minimal.	Consistent. See response to Policy OSC-41.
Policy OSC-44: The Town shall encourage and promote cooperation and participation of private groups, organizations, and individuals in the planning, operation and preservation of open space lands as deemed necessary.	Consistent. The Town and Belvedere-Tiburon Library Agency would cooperate and work together on the relocation of Zelinsky Park and other open space elements of the project.

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Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
Policy OSC-45: The Town shall, where desirable, coordinate the use of its open space lands with other public and quasi-public lands that are contiguous or otherwise inter-related to Town open space.	Consistent. The Town would coordinate with the Belvedere-Tiburon Library Agency regarding Zelinsky Park and open space areas adjacent to Railroad Marsh.
Policy OSC-46: The Town may engage in or authorize landscape restoration and/or enhancement programs where the natural landscape has been altered or degraded and when funding and resources allow on its open space land.	Consistent. The project would restore areas of the project site to a natural state including the site of the relocated Zelinsky Park.
Policy OSC-47: The town shall protect significant geological, ecological, archaeological and paleontological resources and historic sites.	Consistent. A cultural resource study, wetland delineation, biological resources assessment, and hydrology analysis were prepared for the project. A geological investigation would be prepared for submittal with the project building plans application.
Policy OSC-49: Support the efforts of the Marin Municipal Water District (MMWD) to conserve the use of water through enforcement of the Town's water conservation ordinance requiring implementation of water conservation measures.	Consistent. The project would include native landscaping, bioretention areas that would help with groundwater recharge, and the use of water saving fixtures.
Policy OSC-51: Where impervious surface construction and storm drain system installation and/or hillside stabilization (e.g. landslide repair) are proposed as part of development proposals, or wherever such stabilization is required by the Town to protect public safety, the Town shall require project applicants to analyze the impacts of these drainage pattern modifications on groundwater recharge and on downslope water wells and their yields. In the event impacts are likely, modifications to the proposed project, including possible downsizing, should be considered.	Consistent. A hydrology analysis was prepared for the project. A detailed study as required by the Town would be prepared when more detailed project plans become available.
Policy OSC-52: Water quality should be maintained or enhanced in order to promote the continued environmental health of natural waterway habitats.	Consistent. The project would include a bioretention area to filter runoff and to recharge groundwater.
Policy OSC-56: The Town shall promote the reduction of particulate matter from construction sites, roads, parking lots, and other sources through best management practices (BMPs).	Consistent. The project would be required to implement BAAQMD dust control measures.
Policy OSC-53: The Town shall continue to be an active member agency of the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) to reduce pollution being conveyed through storm water systems to the Bay and to comply with federal and state water quality regulations.	Consistent. The project would implement an erosion control plan and SWPPP for the construction phase of the project, in accordance with NPDES permit requirements
Policy OSC-54: The Town shall promote the adoption and implementation of Start at the Source-Design Guidance Manual for Stormwater Quality Protection and the most recent follow-up publication Using Site	Consistent. See response to Policy OSC-53.

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Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
Design Techniques to Meet Development Standards for Stormwater Quality: A Companion Document, both of which apply to new development and redevelopment projects. These documents stress the incorporation of runoff and other pollutant source controls into the project design process.	
Policy OSC-56: The Town shall promote the reduction of particulate matter from construction sites, roads, parking lots, and other sources through best management practices (BMPs).	Consistent. The project would be required to implement BAAQMD construction emission and dust control measures.
Policy OSC-57: The town shall require the use of feasible control measures to reduce PM10, NOx, and diesel particulate matter related to construction activities.	Consistent. The project would be required to implement BAAQMD construction emission control measures.
Policy OSC-59: The Town shall continue to meet or exceed waste diversion targets set by the state.	Consistent. The project would include recycling facilities.
Policy OSC-60: The Town shall require as a condition of approval of use permits that businesses prepare and implement waste management plans to maximize recycling, where appropriate.	Consistent. See response to Policy OSC-59.
Policy OSC-62: The Town shall apply green building principles to the design, construction, and operation of new Town and Town-sponsored facilities to provide long-term cost savings and to serve as an example for the community.	Consistent. The Library design would seek LEED certification and would be designed to reduce energy consumption through high-efficiency lighting and HVAC systems, extensive use of indoor daylight, and an efficient building envelope. Site design would incorporate design strategies that reduce runoff water quantities and ensure good water quality. Lighting would be designed to reduce light pollution to the outdoors. Building materials will be high in recycled content, use renewable resources, and wood will be sourced from sustainable forests. The project would restore portions of the project site back to an undeveloped state, as well as implement sustainable design goals and potentially certification with the United States Green Building Council LEED program. The project would also include bioretention areas to filter runoff and to recharge groundwater.
Policy OSC-63: The Town shall integrate energy efficiency, conservation, and other green building incentives into the zoning permit and building permit processes.	Consistent. See response to Policy OSC-62.
Policy OSC-64: The use of native plants for landscaping shall be encouraged and the planting of invasive, exotic species shall be discouraged.	Consistent. The project would restore portions of the project site back to an undeveloped state. The existing trees along Tiburon Boulevard would be preserved. The existing mature tree and narrative describing the importance of the Zelinsky family to the area would be maintained.
Policy OSC-65: The removal of invasive, exotic	Consistent. The project conditions of approval would

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Applicable Goal/Policy	Consistency
species, such as broom and pampas grass, shall be required as a condition of approval for new developments.	include continued removal of invasive, exotic species.
Policy OSC-66: New developments shall be required to ensure ongoing removal of invasive, exotic species through home owners associations, covenants, conditions and restriction (CC&Rs), or other appropriate mechanisms.	Consistent. See response to Policy OSC-65.
<i>Downtown Element</i>	
Goal DT-B: To enhance Downtown's role as the commercial and service center of Tiburon while promoting new resident-serving and visitor-serving uses and facilities.	Consistent. The project would provide expanded public library services to the community.
Goal DT-C: To encourage greater pedestrian activity and enjoyment of life in Downtown while respecting surrounding residential uses.	Consistent. The project would connect a new multi-use pathway, Town Plaza, Zelinsky Promenade/Garden Plaza, and outdoor areas. The project would be located in a pedestrian-friendly and –accessible area.
Goal DT-D: To improve and enhance pedestrian and vehicular connectivity throughout Downtown.	Consistent. See response to Goal DT-C.
Goal DT-F: To enhance Downtown's public facilities and amenities for the benefit of all users.	Consistent. See response to Goal DT-B and DT-C.
Goal DT-G: To facilitate convenient parking to serve all uses.	Inconsistent. The project would include a 52-space parking lot accessed from Mar West Street to serve both the Library and Town Hall. However, the lot would not provide enough parking spaces to accommodate the proposed uses at various times of the day or during special events. Some Library or Town Hall users may be required to find parking in another location, which may be considered an inconvenience by some.
Policy DT-1: The Town shall promote a clean, well-maintained Downtown area that serves the commercial, service, and passive recreation needs of the community and is an aesthetically pleasing, friendly, and desirable destination.	Consistent. The project would expand the existing Belvedere-Tiburon Public Library and would include lighting and landscaping improvements, including the installation of a Town Plaza and Zelinsky Promenade/Garden Plaza extending from Tiburon Boulevard to Zelinsky Park, relocation of Zelinsky Park, restoration of areas on the site to an undeveloped state, parking lot and Tiburon Boulevard landscaping, and installation of a Story Time Area and Staff Patio. These improvements would provide recreation for the community and be aesthetically pleasing.
Policy DT-2: Resident-serving land uses shall be encouraged throughout Downtown.	Consistent. See response to Goal DT-B and Policy DT-1.
Policy DT-6: To preserve and enhance the unique character of Downtown Tiburon, Downtown buildings may be rebuilt or reconstructed to the same FAR as exists, provided that the resulting building substantially conforms to the guidelines of the Downtown Tiburon Design Handbook.	Consistent. See response to Policy LU-4.

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Applicable Goal/Policy	Consistency
Policy DT-17: Throughout Downtown. New buildings or alterations to existing buildings in the Downtown should substantially adhere to the guidelines set forth in the Downtown Tiburon Design Handbook.	Consistent. The Downtown Tiburon Design Handbook calls for consistency, compatibility, and authenticity as the guiding themes for development in Downtown Tiburon. Building fronts should support pedestrian activity and be character-defining. Building heights should be appropriate to a civic boulevard (two- to three-story). Building shape should be traditional in both shape and massing, in combination with contemporary detailing. The Library addition would be consistent in design with the existing Tiburon Library and include a simple roof form. The Library addition would be scaled appropriate to a civic boulevard, but would support pedestrian activities by including outdoor areas and walkways/paths nearby. Exterior materials would include wood siding, windows, and roofing materials consistent with not only the existing library but with materials outlined in the Downtown Tiburon Design Handbook.
Policy DT-18: Throughout Downtown. Street furniture and street lighting shall be high quality and consistent with the guidelines established in the Site Furnishings Supplement to the Downtown Tiburon Design Handbook, and shall be installed only in locations that will enhance use and enjoyment of sidewalks, parks, pedestrian corridors, plazas and other public areas.	Consistent. The project would include street furniture constructed of wood, and trash receptacles, bike racks, and site lighting consistent with the Downtown Tiburon Design Handbook.
Policy DT-20: Throughout Downtown. Encourage public art in those locations in Downtown where it is appropriate.	Consistent. The project would include a water feature or large art feature that would serve as a focal point.
Policy DT-25: Tiburon Boulevard. New buildings shall observe a setback of 25 to 30 feet from the curb, with entrances visible to the motorist and welcoming to the pedestrian, to create an engaging, pedestrian-friendly environment. Where possible, frontage improvements including wider sidewalks and street trees on both sides of the street should be installed consistent with the Downtown Tiburon Design Handbook.	Consistent. The existing Tiburon Boulevard Library entry would be maintained, and an entry from the north allowing access from the parking area would be provided. The existing trees along Tiburon Boulevard would be preserved. A Town Plaza would provide pedestrian access between the Town Hall and Library and Zelinsky Promenade/Garden Plaza would connect Tiburon Boulevard with Zelinsky Park, Railroad Marsh, and a new connecting pathway.
Policy DT-26: Tiburon Boulevard. Retail storefronts and active outdoor spaces for community gathering, such as sidewalk cafes, are strongly encouraged, in order to make strolling along Tiburon Boulevard a stimulating and enjoyable activity.	Consistent. See response to Policy DT-25.
Policy DT-27: Tiburon Boulevard. The visual presence and location of on-site parking spaces are to be made secondary to building storefronts, entrances, and street orientation. Locating parking behind buildings will be required wherever possible.	Consistent. Parking currently located between the Library and Town Hall and accessible from Tiburon Boulevard only, would be relocated behind the Library and addition to reduce the visual presence of on-site parking.
Policy DT-28: Tiburon Boulevard. A mix of two- and	Consistent. The project would be two-stories in height.

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Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
three-story buildings is encouraged for new construction.	
Policy DT-33: New parking facilities in Downtown Tiburon shall be located behind buildings and adequately landscaped in order to reduce their visual impact, primarily from Tiburon Boulevard. Structure parking should be low-key and not prominently visible.	Consistent. See response to Policy DT-27.
Policy DT-35: Support an appropriate expansion of the Belvedere-Tiburon Public Library adjacent to Zelinsky Park.	Consistent. The project proposes the expansion of the Belvedere-Tiburon Public Library.
Policy DT-36: Maintain Railroad Marsh as a functional flood control system and enhance its habitat value.	Consistent. The project would not affect Railroad Marsh as a functional flood control system. Restoration of the area near the Marsh to a natural state would enhance its habitat value.
<i>Circulation Element</i>	
Goal C-A: To maintain and improve the roadway system to a measurable standard of effectiveness and safety to accommodate circulation between activity centers within the Planning Area and to and from U.S. Highway 101.	Consistent. The project would not impact traffic or reduce any measurable standard of effectiveness and safety along roadways in the area.
Goal C-B: To provide safe and convenient movement of local residents and visitors to their places of employment, shopping and recreation in the San Francisco Bay Area.	Consistent. The project would relocate parking and site access to Mar West Street and access to the parking area would be consistent with the Town Engineer's guidelines for driveway access.
Goal C-D: To provide an adequate means of circulation for emergency vehicles.	Consistent. The project parking area would include adequate turning radii for emergency vehicles.
Goal C-E: To improve the circulation system for pedestrians and bicyclists, including safety enhancements.	Consistent. The project would relocate parking and site access to Mar West Street and eliminate the driveway access from Tiburon Boulevard, which would improve safety for pedestrians and bicyclists.
Goal C-F: To minimize traffic congestion.	Consistent. See response to Goal C-A and Section IV.G, Traffic and Transportation for a complete discussion.
Goal C-I: To provide adequate parking throughout the Planning Area.	Inconsistent. The project would not provide parking on site that meets the Town or ICE parking standards for Libraries and institutional uses.
Goal C-J: To provide facilities and incentives to encourage non-auto travel throughout the Planning Area.	Consistent. The project would include bike parking and would include connection to pedestrian and bicycle facilities.
Policy C-1: Land use decisions shall take into consideration potential traffic and circulations impacts.	Consistent. See response to Goal C-A and Section IV.G, Traffic and Transportation for a complete discussion.
Policy C-2: All new projects shall be required to pay a pro rata share of needed traffic improvements in accordance with the burden created by such new projects.	Consistent. The project would contribute fees for needed traffic improvements.
Goal C-5: For signalized intersections in the Tiburon	Consistent. See response to Goal C-A and Section

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Applicable Goal/Policy	Consistency
Planning Area, the average peak hour level of service (LOS) shall not deteriorate below LOS C, with the exception of intersections located near the U.S. 101 interchange, as depicted in Diagram 5.5-1, which shall not deteriorate below LOS D.	IV.G, Traffic and Transportation for a complete discussion.
Goal C-6: At such time as unsignalized intersections meet signal warrants, the Town shall approach Caltrans to approve and/or provide signalization.	Consistent. Although the project would not require the installation of a traffic signal, a signal is recommended. The Town would approach Caltrans to approve and/or provide signalization when it is determined that one is needed.
Goal C-7: The Town shall comply with the Transportation Authority of Marin's Congestion Management Plan (CMP), including adopting and monitoring the level of service (LOS) of the CMP network. As of 2004, the LOS standards are LOS E for U.S. Highway 101 during the P.M. peak hour and LOS D for Tiburon Boulevard during the P.M. peak hour.	Consistent. See response to Goal C-A and Section IV.G, Traffic and Transportation for a complete discussion.
Policy C-10: Street lights shall be installed only at intersections or where required for safety purposes. Light sources shall be of a warm, subdued nature and should be down-lights and/or properly shielded.	Consistent. No street lights are proposed as part of the project. Site lighting would be consistent with the Downtown Tiburon Design Handbook guidelines.
Policy C-12: The Town should discourage parking lots which have substantial frontage on Tiburon Boulevard. To the extent feasible, all parking lots should be screened by buffers or berms.	Consistent. See response to Policy DT-27. Additionally, the project would include parking lot landscaping to buffer views of the lot from Zelinsky Park, the multi-use trail, and Mar West Street.
Policy C-22: The pedestrian paths and bicycle trails in Tiburon should connect with other paths and trails where practical.	Consistent. The project would construct a multi-use trail and would connect Tiburon Boulevard with this trail via the Zelinsky Promenade/Garden Plaza.
Policy C-23: Bicycle facilities, including bike racks, shall be included as part of new public and commercial projects, particularly in Downtown Tiburon.	Consistent. The project would include bike racks.
Policy C-40: The Town shall encourage and allow reciprocal parking facilities for those businesses located near one another with different peak hour operating demands.	Consistent. The project would provide shared parking for the Library and Town Hall.
Policy C-41: Adequate parking and loading should be provided for all new uses and expansion of existing uses in Downtown Tiburon in accordance with the standards of the Zoning Ordinance.	Inconsistent. The project would not provide parking on site that meets the Town or ICE parking standards for Libraries and institutional uses.
Safety Element	
Goal SE-B: To identify hazardous areas and to discourage to the maximum extent feasible development of areas subject to hazards including, but not limited to, geotechnical hazards, unstable slopes and flood-prone areas.	Consistent. A site drainage study would be prepared for the project to identify specific design measures that will be incorporated into the project to reduce peak flow rates for the 100-year event to at or below pre-project levels to ensure that the project would not affect Railroad Marsh or adjacent natural areas as a functional

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Applicable Goal/Policy	Consistency
	flood control system.
Goal SE-C: To ensure safe subdivision and building design.	Consistent. The Town would review the project building plans for safe design.
Policy SE-1: The Town shall permit development only in those areas where potential danger to the health, safety, and welfare of the residents of the community can be avoided or adequately mitigated.	Consistent. The Town would review the project site and building plans in accordance with state and local requirements regarding geotechnical, flooding, and fire safety.
Policy SE-2: The Town shall require development and construction to be located, designed, and implemented to avoid, eliminate, or reduce geologic and non-geologic hazards.	Consistent. The Town would review the project building plans for compliance with the recommendations of the geotechnical report and building codes related to building design to mitigate seismic hazards.
Policy SE-3: The Town shall continue to require detailed geotechnical investigations for development proposals. Such investigations shall determine the actual extent of geotechnical hazards, specify adequate repair/improvement techniques, describe optimum design for structures and improvements, and set forth any special requirements for the sites.	Consistent. A geotechnical report would be prepared and submitted with the project plans for approval.
Policy SE-4: Development allowed within areas of potential geologic hazard shall neither be endangered by, nor contribute to, the hazardous conditions on the site or on surrounding properties.	Consistent. A geotechnical report would be prepared and submitted with the project plans for approval.
Policy SE-6: The Town should actively encourage owners of developed property to repair or improve unstable slopes, install drainage facilities, and take other measures that may reduce potential safety hazards.	Consistent. The project would include a bioretention area and drainage facilities.
Policy SE-9: The Town shall require new development and/or construction where feasible, to be outside Special Flood Hazard Areas. Construction proposed within Special Flood Hazard Areas shall comply with the Town's Flood Damage Prevention Ordinance (Municipal Code Chapter 13D).	Consistent. The project would be constructed in a FEMA-designated 100-year flood zone associated with Belvedere Lagoon. However, the finished floor elevation of the proposed building would be 10.9 feet NAVD88, which is above the 100-year flood level associated with the Belvedere Lagoon.
Policy SE-12: On-site detention of stormwater runoff shall be utilized to ensure that post-development peak flow rates from a site resulting from both the two-year and 100-year design rainstorms are not increased by new subdivisions or other permitted development projects.	Consistent. See response to Policy SE-6. Additionally, a site drainage study would be prepared for the project to identify specific design measures that will be incorporated into the project to reduce peak flow rates for the 100-year event to at or below pre-project levels.
Policy SE-17: New development shall provide sufficient water supply and equipment for fire suppression to ensure that the requirements for minimum fire flow and the size, type and location of water mains and hydrants set forth in the Uniform Fire Code and by local ordinance are met.	Consistent. The project would provide sufficient water supply and equipment for fire suppression to ensure that the requirements for minimum fire flow and the size, type and location of water mains and hydrants set forth in the Uniform Fire Code and by local ordinance are met.
Policy SE-19: The Town shall work with the Fire Districts and other agencies to provide, enhance, and	Consistent. The Town, Fire, and Police Departments would review the project site plans, including the

**Table IV.F-2
Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
maintain adequate access, including secondary access, to all areas within the Planning Area.	parking area, for adequate access for fire protection and emergency services prior to project approval.
Policy SE-20: The Town shall require provision of defensible space in all projects where fire hazard is possible. On-going maintenance of defensible space buffers in new development projects shall be assured in a form satisfactory to the Town and the Fire District prior to construction of improvements.	Consistent. The Town, including the Fire Department would review the project site plans for provision of defensible space prior to project approval.
Policy SE-26: The Town shall encourage residents and businesses to reduce or eliminate the use of hazardous materials, including encouraging residents to purchase toxic substances in only the amount needed to do the job, or use non-toxic alternatives that do not pose a threat.	Consistent. The project does not propose the use of hazardous materials. Cleaning substances used on-site would be in accordance with local agency rules and regulations.
Noise Element	
Goal N-A: To ensure that residential areas are quiet and that noise levels in public and commercial areas remain within acceptable limits.	Inconsistent. The project would not result in impacts to adjacent residential areas. The project would result in temporary significant construction noise impacts to the Library and Town Hall. See Section IV.F, Noise for a complete discussion.
Goal N-B: To eliminate or reduce unnecessary, excessive and offensive noises from all sources.	Inconsistent. See response to Goal N-A and Section IV.F, Noise for a complete discussion.
Goal N-C: To minimize the exposure of community residents to noise through the careful placement of land uses that may cause noise impacts.	Consistent. Operation of the project would not result in exposure of community residents to noise. See Section IV.F, Noise for a complete discussion.
Goal N-D: To minimize current noise impacts from Tiburon Boulevard and other high-volume roads on adjacent land uses that are sensitive to noise.	Consistent. The project would not substantially increase noise along Tiburon Boulevard or other high volume roads.
Policy N-1: The Town shall use the Noise and Land Use Compatibility Guidelines contained herein to determine where noise levels in the community are acceptable or unacceptable.	Consistent. Operation of the project would not result in exposure of community residents to noise. See Section IV.F, Noise for a complete discussion.
Policy N-2: The Town should use the Noise and Land Use Compatibility Guidelines to determine acceptable uses, and to require noise attenuation methods in noise-impacted areas.	Consistent. Operation of the project would not result in exposure of community residents to noise that would exceed any standards identified in the Noise and Land Use Guidelines.. See Section IV.F, Noise for a complete discussion.
Policy N-3: Environmental reviews (environmental impact reports, initial studies/negative declarations) of projects within the Tiburon Planning Area will be required to, where appropriate, include an acoustical analysis of the project's potential to cause a noise impact.	Consistent. A noise study was prepared for the project.
Policy N-4: If the projected noise environment for a project exceeds the standards identified in the Noise and Land Use Guidelines, the Town shall require an acoustical analysis so that noise mitigation measures can be incorporated into the project design.	Consistent. A noise study was prepared for the project. The noise study did not identify that the project would exceed any standards identified in the Noise and Land Use Guidelines.

**Table IV.F-2
Comparison of Project Characteristics to Applicable Policies in Tiburon 2020**

Applicable Goal/Policy	Consistency
Policy N-9: New projects in Downtown shall, through site and building design and the use of the best available building technology, minimize the potential noise conflicts between commercial and residential uses, on mixed-use and adjacent residential properties.	Consistent. See response to Policy N-4.
Policy N-10: Standard quiet construction methods shall be used where feasible and when construction activities take place within 500 feet of noise sensitive areas.	Inconsistent. The existing on-site library building is an institutional use and construction of the project would generate a substantial temporary increase in ambient noise levels in the project vicinity, resulting in a potential impact.
<i>Parks & Recreation Element</i>	
Goal PR-A: To provide sufficient land and facilities for a balanced system of parks and recreation opportunities that serve all ages.	Consistent. The project would include Zelinsky Park, a multi-use pathway, and other outdoor amenities and would help the Town maintain a balanced system of parks and recreation opportunities.
Policy PR-9: The Town shall continue to increase, enlarge, and enhance its network of public trails within the Tiburon Planning Area.	Consistent. See response to Goal PR-A.
Policy PR-10: Public convenience facilities such as restrooms, bicycle racks, drinking fountains, and trash receptacles are encouraged and may be provided by the State of California, the Town of Tiburon, and/or the local community.	Consistent. The project would include bicycle racks and trash receptacles.

Point Tiburon Master Plan and Point Tiburon Precise Plan

The northeastern half of the project site is roughly located within the boundaries of Planned Development No. 42, also known as the Point Tiburon Planned Development. Point Tiburon is a redevelopment project constructed in the mid-1980s on the 38-acre former Northwestern Pacific Railroad Yard. Point Tiburon consists of approximately 23,000 square feet of commercial and office space in Point Tiburon Plaza, a 240-acre public pay-parking lot, and 155 condominium units (the Marsh Condominiums adjacent to the site are part of the Plan).

A Master Plan and a Precise Plan have previously been adopted for the Point Tiburon Planned Development. The Point Tiburon Master Plan, adopted in 1979, and the Point Tiburon Precise Plan, adopted in 1980, both designate the portion of the project site within APN 058-171-62 as Open Space (OS). In 2004, the Town amended the Point Tiburon Master Plan and Point Tiburon Precise Plan to re-designate approximately 0.37 acres of APN 058-171-62 to Public/Quasi-Public (P).

Tiburon Zoning Ordinance

Policies set forth in Tiburon 2020 are primarily implemented through enforcement of the Zoning Ordinance of the Town of Tiburon. The Tiburon Zoning Ordinance designations for the various parcels

and portions of parcels correspond directly to the Tiburon 2020 General Plan designations (see Figure IV.F-1). Specifically, the portions of the project site designated as Public/Quasi-Public in the General Plan are zoned Public/Quasi-Public in the Zoning Ordinance, and the portions of the project site designated as Open Space in the General Plan are zoned as Open Space.

Public/Quasi-Public (P)

As described in the Zoning Ordinance, the Public/Quasi-Public (P) zone is intended to provide for public and quasi-public uses, and to recognize existing public and quasi-public uses and facilities which are expected to remain in a similar use in the foreseeable future. Uses allowed in this zone include parks, open spaces, educational, institutional, recreational, utility, and governmental buildings and facilities. Building limitations for this zone state that building heights shall not exceed 30 feet, lot coverage shall not exceed 50 percent; minimum lot size is 10,000 sf, and the maximum FAR shall not exceed 1.00 (including associated parking structures). Per Section 16-32.040 of the Zoning Ordinance, libraries require a minimum of one parking stall per 500 sf of gross floor area.

Open Space (OS)

The Open Space (OS) zone is intended to preserve those lands within the Town set aside for permanent open space. While much of the open space-zoned land in Tiburon is publicly owned, a considerable portion is privately held with recorded use restrictions limiting the property to open space use. Uses permitted in this zone include passive recreational and open space uses such as hiking, picnicking, and the enjoyment of nature. Building limitations for this zone state that there shall be no new structures allowed on open space lands. Existing structures may be maintained or reconstructed as provided in Sections 16-26.040 of the Zoning Ordinance when consistent with the General Plan.

Neighborhood Commercial (NC)

The neighborhood commercial (NC) zone is intended to provide for predominantly resident-serving commercial and office uses, while allowing incidental residential uses and mixed-use commercial/residential projects in accordance with the General Plan. Predominantly tourist-oriented uses (e.g., souvenir shops) are strongly discouraged in this zone.

Town of Tiburon Bicycle and Master Plan

The 2008 Tiburon Bicycle and Pedestrian Master Plan provides for a town-wide network of bicycle and pedestrian facilities, including sidewalks, paths, bike lanes and bike routes, along with bicycle- and pedestrian-related programs and support facilities, intended to ensure bicycling and walking become viable transportation options for people who live, work and recreate in Tiburon. The purpose of the Bicycle and Pedestrian Master Plan is to improve bicycle and pedestrian transportation in Tiburon, in part by meeting the requirements of the California Bicycle-Transportation Act, which requirements are contained in Section 890 of the California Streets and Highways Code.

The improvements detailed in the Plan are intended to address the needs not only of Tiburon residents but also of the large numbers of cyclists who visit the town to bicycle for recreational purposes along the “Tiburon Loop” which includes Tiburon Boulevard and Paradise Drive. The Plan was updated in 2008 by gathering current bikeway and pedestrian network information from meetings with the Tiburon Bicycle/Pedestrian Advisory Committee (BPAC) and Town staff and combining it with information on proposed routes from the previously adopted Town of Tiburon Bicycle and Pedestrian Master Plan (2001). Relevant bikeway information was also gathered from the Marin County Unincorporated Area Bicycle and Pedestrian Master Plan (2008 update).

ENVIRONMENTAL IMPACTS

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

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

Impact LU-1: Implementation of the proposed project would not physically divide an established community. (NI)

The project is the expansion of the existing Belvedere-Tiburon Library. The project site is currently developed with the existing Library, parking lot, open space, and Zelinsky Park. The physical division of an established community typically refers to the construction of a major physical feature (such as a highway or railroad track) or removal of a means of access (such as a bridge) that would impair mobility within an existing community. The project would do neither of these. The project would result in some change to the access between Tiburon Boulevard, Zelinsky Park, and the open space areas around Railroad Marsh. However, the project would include the Town Plaza and Zelinsky Promenade/Garden Plaza, which would continue to provide access between these areas. Therefore, the project would not physical divide an established community and there would be ***no impact***.

Impact LU-2: Implementation of the proposed project would not conflict with an applicable land use policy. (LTS)

As shown in Figure IV.F-2, the project proposes General Plan Amendments, a Master Plan Amendment, a Precise Plan Amendment, and a rezoning in order to be consistent with the Town of Tiburon General Plan, Point Tiburon Master Plan, Point Tiburon Precise Plan, and the Zoning Ordinance of the Town of Tiburon. The approximately 0.9-acre portion of the Town-owned Zelinsky Park parcel (058-171-62) currently designated in the General Plan and Point Tiburon Master Plan and Point Tiburon Precise Plan as

Open Space would be re-designated as Public/Quasi-Public. That same parcel would need to be rezoned from Open Space to Public/Quasi-Public in the Tiburon Zoning Ordinance. This General Plan and Zoning Ordinance amendment would allow for the construction of the parking lot, relocation of Zelinsky Park, and the pathway connection and would not represent an increase in building density on the parcel.

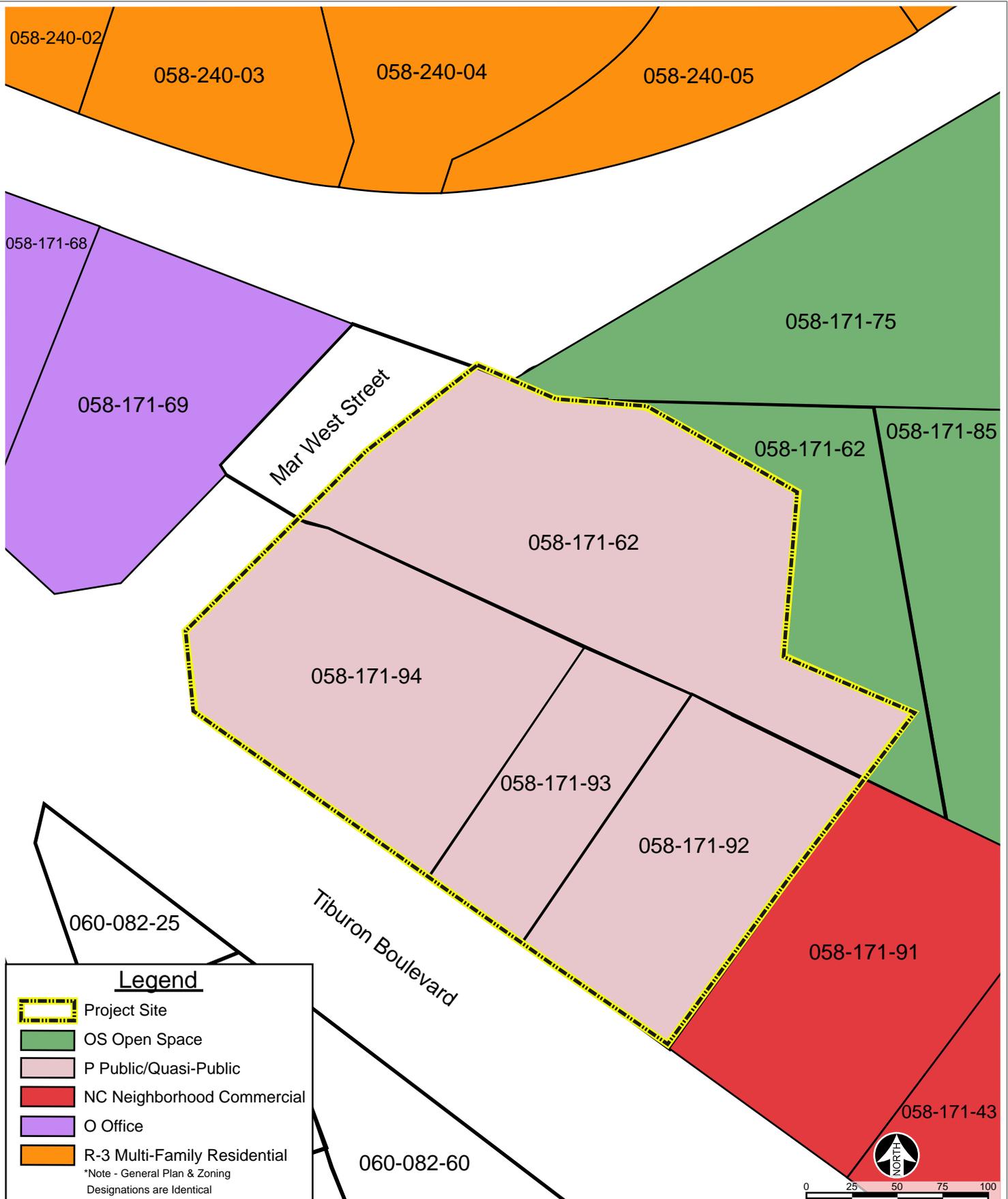
Additionally, the portion of another Town-owned parcel (058-171-92) designated as Neighborhood Commercial in the General Plan and Zoning Ordinance would be redesignated and rezoned as Public/Quasi-Public. This action is required to clean up an inconsistency in the General Plan and zoning designations on the site. Once these General Plan and Zoning actions are implemented, the project would be consistent with the land uses proposed by the project and would not conflict with any applicable land use policy.

Regarding consistency with the Town of Tiburon 2020 General Plan policies, Tiburon 2020 contains many policies, which may in some cases address different goals, and thus some policies which may compete with each other. The project proposes a General Plan Amendment to Policy OSC-20, which states that buffer zones of at least 100 feet be provided between development and wetland areas. Although the project would not result in direct or indirect impacts to wetlands, it would not provide a buffer of 100 feet between the project and wetland areas. Therefore, the Town is proposing an amendment to this policy to allow exceptions in cases of projects which provide substantial public benefit. Following adoption of this amendment, the project would be consistent with this policy and there would be no impact. Development of the project would create physical impacts to air quality, aesthetics, and noise for which there are no mitigation measures available. These impacts are discussed in Section IV.B. Aesthetics, Section IV.C. Air Quality, and Section IV.G Noise.

However, the project would be generally consistent with over 90 percent of the applicable policies in Tiburon 2020. Inconsistency with a policy may indicate a significant physical impact, but the inconsistency is not itself an impact. As stated above, physical impacts have been analyzed in other sections of this document. The Planning Commission/Town Council, in deciding whether to approve the proposed project must decide whether, on balance, the project is consistent (i.e., in general harmony) with the Tiburon 2020 General Plan. The Town, as the lead agency, would make this final determination. However, as shown in Table IV.F-2, the project would be generally consistent with the over 90 percent of the applicable policies in Tiburon 2020 and impacts to land use consistency would be considered *less than significant*.

Impact LU-3: Implementation of the proposed project would not conflict with any applicable Habitat Conservation Plan or Natural Community Plan. (NI)

There are no Habitat Conservation Plans or Natural Community Plans that are applicable to the project site. Impacts to potential biological resources are addressed in Section IV.D (Biological Resources). Therefore, there would be *no impact* and no mitigation measures are required.



Source: <http://gis.co.marin.ca.us/MMDataviewer>, April 27, 2009; Tiburon Zoning Map & General Plan Land Use Diagram.

CUMULATIVE IMPACTS

The area considered for the cumulative analysis of land use impacts includes the surrounding streets and Downtown Tiburon area. The project site is immediately bounded by the Railroad Marsh to the northeast, Mar West Street and commercial and residential uses to the northwest, Tiburon Boulevard to the southwest, and Tiburon Town Hall and associated parking to the southeast. Residential uses are located above Mar West Street to west. Commercial uses are located across Tiburon Boulevard, at the corner of Tiburon Boulevard and Mar West Street, and along Tiburon Boulevard to the southeast of the Town Hall. The Tiburon Peninsula Club and associated parking is located across Railroad Marsh to the north. The Point Tiburon Marsh Condominiums are located approximately 250 feet northeast of the project site.

The project would not physically divide the Town of Tiburon on the Downtown Tiburon area. As shown by the analysis in Table IV.F.2, the project would be generally consistent with Tiburon 2020 policies. Additionally, the project would not conflict with any applicable Habitat Conservation Plan or Natural Community Plan. Therefore, cumulative impacts to land use would be *less than significant*.

IV. ENVIRONMENTAL IMPACT ANALYSIS

G. NOISE

INTRODUCTION

This section of the Draft EIR evaluates the potential noise and groundborne vibration impacts associated with the implementation of the proposed project. This includes the potential for the proposed project to result in impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the project site; exposure of people in the vicinity of the project sites to excessive noise levels, groundborne vibration, or groundborne noise levels; and whether this exposure is in excess of standards established in the local general plan or noise ordinance. Finally, mitigation measures intended to reduce impacts to noise and vibration are proposed, where appropriate, to avoid or reduce significant impacts of the proposed project.

This noise analysis has been prepared using the evaluation criteria outlined in the California Environmental Quality Act (CEQA) Guidelines (Appendix G). Data used to prepare this analysis were obtained from the Town of Tiburon General Plan Noise Element, the Tiburon Municipal Code, and by measuring and modeling existing and future noise levels at the project site and the surrounding land uses. Traffic information contained in the traffic study prepared for the proposed project was used to prepare the noise modeling for vehicular sources.

METHODOLOGY

The primary sources of noise associated with the proposed project would be construction activities at the project site and project-related traffic volumes and new stationary sources (such as heating, ventilation, and air conditioning units) associated with operation of the proposed library expansion development. The net increase in project site noise levels generated by these activities and other sources have been quantitatively estimated and compared to the applicable noise standards and thresholds of significance.

Aside from noise levels, groundborne vibration would also be generated during the construction phase of the proposed project by various construction-related activities and equipment. Thus, the groundborne vibration levels generated by these sources have also been quantitatively estimated and compared to applicable thresholds of significance.

Construction Noise Levels

Construction noise levels were estimated by data published by the United States Environmental Protection Agency (U.S. EPA). Potential noise levels are identified for off-site locations that are sensitive to noise, including the existing residences surrounding the project site. These noise levels are then analyzed against the construction noise standards established in the Tiburon Municipal Code to determine whether an exceedance of allowable noise levels would occur at the off-site locations that are sensitive to noise.

Roadway Noise Levels

Roadway noise levels have been calculated for the study roadway segments near the project site based on information provided in the traffic report for the proposed project. The roadway segments selected for analysis are considered to be those that are expected to be most directly impacted by project-related traffic, which, for the purpose of this analysis, includes the roadways that are nearest to the project site that also run in front of the identified noise receptors. These roadways, when compared to roadways located further away from the project site, would experience the greatest percentage increase in traffic generated by the proposed project. The noise levels were calculated using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) and traffic volumes from the proposed project traffic analysis. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans).

Groundborne Vibration Associated with Construction Equipment

Groundborne vibration levels resulting from construction activities occurring within the project site were estimated by data published by Harris Miller Miller & Hanson Inc. for the Federal Transit Administration (FTA). Potential vibration levels resulting from construction of the proposed project are identified for off-site locations that are sensitive to vibration, including existing residences and churches.

NOISE AND GROUNDBORNE VIBRATION

Fundamentals of Sound and Environmental Noise

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (“dBA”) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources, such as an occasional aircraft or train passing by to virtually continuous noise sources like traffic on a major highway. Table IV.G-1 below illustrates representative noise levels in the environment.

**Table IV.G-1
Representative Environmental Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock Band
Jet Fly-over at 100 feet		
	—100—	
Gas Lawnmower at 3 feet		
	—90—	
		Food Blender at 3 feet
Diesel Truck going 50 mph at 50 feet	—80—	Garbage Disposal at 3 feet
Noisy Urban Area during Daytime		
Gas Lawnmower at 100 feet	—70—	Vacuum Cleaner at 10 feet
Commercial Area		Normal Speech at 3 feet
Heavy Traffic at 300 feet	—60—	
		Large Business Office
Quiet Urban Area during Daytime	—50—	Dishwasher in Next Room
Quiet Urban Area during Nighttime	—40—	Theater, Large Conference Room (background)
Quiet Suburban Area during Nighttime		
	—30—	Library
Quiet Rural Area during Nighttime		Bedroom at Night, Concert Hall (background)
	—20—	
		Broadcast/Recording Studio
	—10—	
Lowest Threshold of Human Hearing	—0—	Lowest Threshold of Human Hearing
<i>Source: California Department of Transportation, Technical Noise Supplement, October 1998.</i>		

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq} – An L_{eq} , or equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{max} – The maximum instantaneous noise level experienced during a given period of time.
- L_{min} – The minimum instantaneous noise level experienced during a given period of time.
- L_{dn} – The Day-Night Average Level is a 24-hour average L_{eq} with a 10 dBA “weighting” added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the

nighttime. The logarithmic effect of these additions is that a 60 dBA 24 hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .

- CNEL – The Community Noise Equivalent Level is a 24-hour average L_{eq} with a 5 dBA “weighting” during the hours of 7:00 P.M. to 10:00 P.M. and a 10 dBA “weighting” added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24 hour L_{eq} would result in a measurement of 66.7 dBA CNEL.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60–70 dBA range, and high above 70 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet suburban residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55–60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60–75 dBA) or dense urban or industrial areas (65–80 dBA).

It is widely accepted that in the community noise environment the average healthy ear can barely perceive CNEL noise level changes of 3 dBA. CNEL changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA CNEL increase is readily noticeable, while the human ear perceives a 10 dBA CNEL increase as a doubling of sound.

Noise levels from a particular source generally decline as distance to the receptor increases. Other factors, such as the weather and reflecting or barriers, also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA at acoustically “hard” locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically “soft” locations (i.e., the area between the source and receptor is normal earth or has vegetation, including grass). Noise from stationary or point sources is reduced by about 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels are also generally reduced by 1 dBA for each 1,000 feet of distance due to air absorption. Noise levels may also be reduced by intervening structures – generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The normal noise attenuation within residential structures with open windows is about 17 dBA, while the noise attenuation with closed windows is about 25 dBA.¹

¹ National Cooperative Highway Research Program Report 117, *Highway Noise: A Design Guide for Highway Engineers*, 1971.

Fundamentals of Environmental Groundborne Vibration

Vibration is sound radiated through the ground. Vibration can result from a source (e.g., train operations, motor vehicles, machinery equipment, etc.) causing the adjacent ground to move, thereby, creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as groundborne vibration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration levels. PPV is defined as the maximum instantaneous peak of the vibration level, while RMS is defined as the square root of the average of the squared amplitude of the level. PPV is typically used for evaluating potential building damage, while RMS velocity in decibels (VdB) is typically more suitable for evaluating human response.

The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

The general human response to different levels of groundborne vibration velocity levels is described in Table IV.G-2.

Table IV.G-2
Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.
<i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.</i>	

ENVIRONMENTAL SETTING

Project Location

The 2.36-acre project site is located at 1501 and 1505 Tiburon Boulevard, near the intersection of Tiburon Boulevard and Mar West Street, in the Town of Tiburon (County of Marin). The existing development on the project site consists of the Belvedere-Tiburon Library and Town Hall parking areas, Zelinsky Park, the Belvedere-Tiburon Library building, and the Town Hall building. The land uses surrounding the

project site include commercial, office, residential, and open space. Specifically, the project site is bounded by the Railroad Marsh (open space area) to the northeast, Mar West Street and commercial and residential uses to the northwest, Tiburon Boulevard and residential uses to the southwest, and Tiburon Town Hall and associated parking to the southeast.

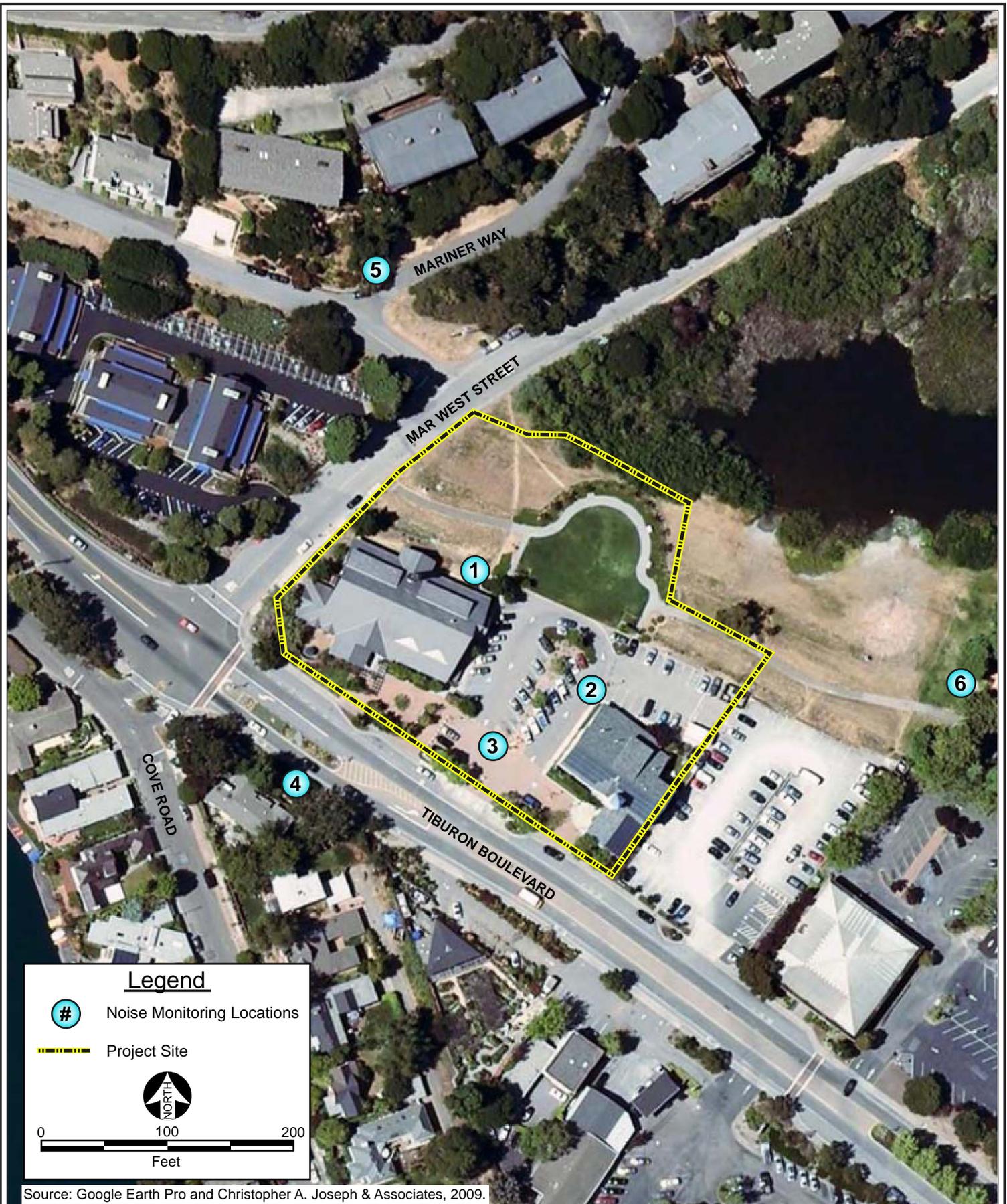
Nearby Sensitive Receptors

Sensitive receptors are populations that are more susceptible to the effects of noise and vibration than others, such as the elderly and children. Locations that may contain high concentrations of sensitive receptors include long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, child care centers, and libraries. The on-site sensitive receptors consist of the occupants of the existing library building and the future occupants of the proposed library addition. The nearby off-site sensitive receptors include the multi-family residences to the north, the single family residences to the southwest, and the Point Tiburon Marsh Condominiums to the east.

Existing Conditions

Existing Ambient Daytime Noise Levels

To establish baseline noise conditions near existing and future sensitive receptors within the vicinity of the project site, existing daytime noise levels were monitored at on-site locations as well as surrounding off-site locations. The noise survey was conducted using the Larson-Davis 820 precision noise meter, which meets and exceeds the minimum industry standard performance requirements for “Type 1” standard instruments as defined in the American National Standard Institute (ANSI) S1.4. This instrument was calibrated and operated according to the manufacturer’s written specifications. At the noise measurement locations, listed below in Table IV.G-3, the microphone was placed at a height of approximately five feet above the local grade and the sound level meter was programmed to record the average sound level (L_{eq}) over a cumulative period of 15 minutes. The average noise levels and sources of noise monitored at these locations are shown in Table IV.G-3, with the locations identified in Figure IV.G-1 (Noise Monitoring Locations).



Source: Google Earth Pro and Christopher A. Joseph & Associates, 2009.



CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Figure IV.G-1
Noise Monitoring Locations

Table IV.G-3
Existing Daytime Noise Levels at Sensitive Receptor Locations

Noise Measurement Location	Distance from Site (ft)	Primary Noise Sources	Noise Level Statistics		
			L _{eq}	L _{min}	L _{max}
Northeast corner of existing Library Building	0	Birds chirping, sparse traffic in parking lot, pedestrians	62.8	55.8	82.2
North corner of existing Town Hall Building	0	Traffic in parking lot, birds chirping	70.8	60.0	90.7
Front of existing parking lot, 40 feet from Tiburon Boulevard	0	Ambient traffic noise on Tiburon Boulevard, traffic in parking lot, tree cutters	70.4	59.5	82.8
Single-family residence located southwest of the project site along Tiburon Boulevard	100	Ambient traffic noise on Tiburon Boulevard, tree cutters	70.0	56.2	87.7
Multi-family residence located north of the project site, across Mar West Street	190	Birds chirping, sparse traffic, plane overhead	63.7	53.6	81.7
Multi-family residence (the Point Tiburon Marsh Condominiums) to the east of the project site	250	Birds chirping, ambient traffic noise along Tiburon Boulevard	61.6	55.0	76.5

Source: Christopher A Joseph and Associates, July 2009. Noise measurement data are provided in Appendix D.

Existing Roadway Noise Levels Offsite

Existing roadway noise levels were calculated for 12 roadway segments located in proximity of the project site. The roadway segments selected for analysis are considered to be those that are expected to be most directly impacted by project-related traffic, which, for the purpose of this analysis, includes the roadways that are nearest to the project site. These roadways, when compared to roadways located further away from the project site, would experience the greatest percentage increase in traffic generated by the proposed project.

Calculation of the existing roadway noise levels was accomplished using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) and traffic volumes from the project traffic analysis. The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data show that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along these roadway segments are presented in Table IV.G-4.²

² Table IV.G-4 indicates noise levels at 50 feet from the centerline of each roadway segment.

**Table IV.G-4
Existing (2009) Roadway Noise Levels Offsite**

Roadway	Roadway Segment	Existing Land Uses Located Along Roadway Segment	dBA L_{dn}^a
Cove Road	West of Mar West Street	Residential	47.8
	East of Mar West Street	Residential & Commercial	46.1
Tiburon Boulevard	West of Mar West Street	Park & Residential	62.5
	East of Mar West Street	Commercial	62.2
	West of Beach Road	Commercial	61.2
	East of Beach Road	Commercial	59.5
Mariner Way	West of Mar West Street	Residential	46.8
Mar West Street	North of Tiburon Boulevard	Library & Office	55.0
	South of Mariner Way	Library & Office	55.1
	North of Mariner Way	Residential	54.2
Beach Road	North of Tiburon Boulevard	Commercial	52.5
	South of Tiburon Boulevard	Commercial	55.7

^a Values represent noise levels at 50 feet from the centerline of each roadway.

Traffic Information Source: DKS Associates, Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, February 17, 2010.

Table Source: Christopher A. Joseph and Associates, February 2010. Calculation data and results provided in Appendix D.

Existing Groundborne Vibration Levels

The only sources of groundborne vibration in the project site vicinity are heavy-duty vehicular travel (e.g., refuse trucks, delivery trucks, and transit buses) on local roadways such as Tiburon Boulevard. Trucks and buses typically generate groundborne vibration velocity levels of around 63 VdB, and these levels could reach 72 VdB where trucks and buses pass over bumps in the road.³ In terms of PPV levels, a heavy-duty vehicle traveling at a distance of 50 feet can result in a vibration level of approximately 0.001 inch per second.

³ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

REGULATORY SETTING

Federal Oversight

Noise Standards

The FTA has developed guidance to assess noise impacts from the construction and operation of proposed mass transit projects, entitled *Transit Noise and Vibration Impact Assessment*⁴. However, since this is not considered a mass transit project, there are no federal noise standards that directly regulate environmental noise related to the construction or operation of the proposed project. With regard to noise exposure and workers, the Office of Safety and Health Administration (OSHA) regulations safeguard the hearing of workers exposed to occupational noise.

Vibration Standards

The FTA has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by the FTA are shown below in Table IV.G-5.

**Table IV.G-5
Construction Vibration Damage Criteria**

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
<i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.</i>	

In addition, the FTA has also adopted standards associated with human annoyance for groundborne vibration impacts for the following three land-use categories: Vibration Category 1 – High Sensitivity, Vibration Category 2 – Residential, and Vibration Category 3 – Institutional. The FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference. The groundborne

⁴ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

vibration thresholds for these three land-use categories are shown in Table IV.G-6. No thresholds have been adopted or recommended for commercial and office uses.

**Table IV.G-6
Human Annoyance Groundborne Vibration Thresholds (VdB)**

Frequency of Events	Groundborne Vibration Threshold (VdB)		
	Category 1	Category 2	Category 3
Infrequent	65	80	83
Occasional	65	75	78
Frequent	65	72	75

Note:
“*Infrequent events*” is defined by the Federal Transit Administration as being fewer than 30 vibration events of the same kind per day.
“*Occasional events*” is defined by the Federal Transit Administration as between 30 and 70 vibration events of the same source per day.
“*Frequent events*” is defined by the Federal Transit Administration as over 70 vibration events of the same kind per day.
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

State Oversight

Noise Standards

The California Department of Health Services has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. These guidelines for land use and noise exposure compatibility (shown in Table IV.G-7) are included in the State of California General Plan Guidelines⁵ and are to be considered by local governments when setting standards for human exposure to noise.

The State of California also establishes minimum noise insulation performance standards for hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings as set forth in the 2007 California Building Code (Chapter 12, Appendix Section 1207.11.2) and in Title 24 of the California Code of Regulations. The noise limit is a maximum interior noise level of 45 dBA L_{dn} . Where exterior noise levels exceed 60 dBA L_{dn} , a report must be submitted with the building plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

⁵ Office of Planning and Research, *State of California General Plan Guidelines*, October 2003 (in coordination with the California Department of Health Services)

**Table IV.G-7
Community Noise Exposure (CNEL)**

Land Use	Normally Acceptable^a	Conditionally Acceptable^b	Normally Unacceptable^c	Clearly Unacceptable^d
Single-family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	above 75
Multi-Family Homes	50 - 65	60 - 70	70 - 75	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	above 80
Transient Lodging – Motels, Hotels	50 - 65	60 - 70	70 - 80	above 75
Auditoriums, Concert Halls, Amphitheaters	---	50 - 70	---	above 65
Sports Arena, Outdoor Spectator Sports	---	50 - 75	---	above 70
Playgrounds, Neighborhood Parks	50 - 70	---	67 - 75	above 73
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	---	70 - 80	above 80
Office Buildings, Business and Professional Commercial	50 - 70	67 - 77	above 75	---
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	above 75	---

^a *Normally Acceptable:* Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

^b *Conditionally Acceptable:* New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

^c *Normally Unacceptable:* New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

^d *Clearly Unacceptable:* New construction or development should generally not be undertaken.

Source: Office of Planning and Research, State of California General Plan Guidelines, October 2003 (in coordination with the California Department of Health Services)

Vibration Standards

There are no State vibration standards applicable to the proposed project. Moreover, according to Caltrans *Transportation- and Construction-Induced Vibration Guidance Manual* (2004), there are no official Caltrans standards for vibration. However, this manual provides guidelines for assessing vibration damage potential to various types of buildings, ranging from 0.08 to 0.12 inches per second for extremely fragile historic buildings, ruins, and ancient monuments to 0.50 to 2.0 inches per second for modern industrial/commercial buildings.

Local Oversight

Town of Tiburon General Plan (Tiburon 2020)

Section 65302(f) of the California Government Code requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must: (1) identify and

appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels (discussed below under the Local Regulatory Setting section).

Pursuant to Section 6530(g) of the California Government Code, the Noise Element of the Town of Tiburon General Plan (Tiburon 2020) sets forth policy guidelines for decision making on issues related to development and conservation in the Town of Tiburon. These policies are listed below. Section IV.F (Land Use and Planning) assesses the consistency of the proposed project with the relevant goals and policies of Tiburon 2020 related to noise.

- **N-1:** The Town shall use the Noise and Land Use Compatibility Guidelines contained herein to determine where noise levels in the community are acceptable or unacceptable.
- **N-2:** The Town should use the Noise and Land Use Compatibility Guidelines to determine acceptable uses, and to require noise attenuation methods in noise-impacted areas.
- **N-3:** Environmental reviews (environmental impact reports, initial studies/negative declarations) of projects within the Tiburon Planning Area will be required to, where appropriate, include an acoustical analysis of the project's potential to cause a noise impact.
- **N-4:** If the projected noise environment for a project exceeds the standards identified in the Noise and Land Use Guidelines, the Town shall require an acoustical analysis so that noise mitigation measures can be incorporated into the project design.
- **N-5:** Motorized recreational vehicles (including trail motorcycles) shall be prohibited in off-road areas in the Tiburon Planning Area.
- **N-6:** Hours of use of recreation and commercial facilities should be regulated to minimize offensive noise to ensure compatibility between such facilities and nearby residential areas.
- **N-7:** Noise walls, sound walls or any form of solid barrier shall be aesthetically compatible with the surrounding neighborhood.
- **N-8:** The Town, in conjunction with the County of Marin and other cities and towns, shall attempt to reduce aircraft noise over the Tiburon Planning Area by working with the appropriate regulatory agencies.
- **N-9:** New projects in Downtown shall, through site and building design and the use of the best available building technology, minimize the potential noise conflicts between commercial and residential uses, on mixed-use and adjacent residential properties.
- **N-10:** Standard quiet construction methods shall be used where feasible and when construction activities take place within 500 feet of noise sensitive areas.

**Table IV.G-8
Noise and Land Use Compatibility Guidelines**

Land Use	Community Noise Exposure, L_{dn} or CNEL, in dB			
	Normally Acceptable ^a	Conditionally Acceptable ^b	Normally Unacceptable ^c	Clearly Unacceptable ^d
Residential	50 - 60	60-70	70 - 75	above 75
Transient Lodging – Motels, Hotels	50 - 60	60 - 75	75 - 80	above 80
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 60	60 - 70	70 - 80	above 80
Auditoriums, Concert Halls, Amphitheaters	---	50 - 70	---	above 70
Sports Arena, Outdoor Spectator Sports	---	50 - 75	---	above 75
Playgrounds, Neighborhood Parks	50 - 70	---	70 - 75	above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 70	---	70 - 80	above 80
Office Buildings, Business and Professional Commercial	50 - 65	65 - 75	above 75	---
Industrial, Manufacturing, Utilities, Agriculture	50 - 70	70 - 75	above 75	---

^a *Normally Acceptable:* Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

^b *Conditionally Acceptable:* New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

^c *Normally Unacceptable:* New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

^d *Clearly Unacceptable:* New construction or development should generally not be undertaken.

Source: Town of Tiburon, General Plan Noise Element, September 2005.

Tiburon Municipal Code

In order to control unnecessary and excessive noise in the Town of Tiburon during construction activities, the noise provisions as outlined in Chapter 13 (Building Regulations) in the Tiburon Municipal Code were created. The sections of Chapter 13 that are applicable to this type of project are as follows:

Section 13-6: Hours of Construction

- a) Generally, all work covered by a permit issued under this chapter shall be performed only between the hours of 7 A.M. to 5 P.M., Monday through Friday, and 9:30 A.M. to 4 P.M. on Saturday. Only quiet work is allowed to be performed on Saturdays, such that noise from any source associated with the permitted work, including but not limited to construction activity, amplified sound, and worker's voices shall not be plainly audible beyond the property line.

- b) Work covered by a permit shall not be performed on Sunday or on holidays observed by the Town of Tiburon. These holidays are New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.
- c) For work covered by a permit, the arrival or departure of heavy equipment (including but not limited to concrete trucks, graders and backhoes) and/or the delivery of heavy items or materials (including but not limited to lumber, concrete, debris boxes, and portable restrooms) to a work site shall occur only on Monday through Friday between the hours of 7 A.M. to 5 P.M. Hours of operation, maintenance, and servicing of heavy equipment shall be limited to 8 A.M. to 5 P.M., Monday through Friday. Heavy equipment may begin engine warm up, but not actual operation, at 7:30 A.M.
- d) Exceptions. The limitations in sections 13-6(a) through (c) shall not apply in the following instances:
- When prior to the commencement of any work covered by a permit issued under this chapter, the town manager grants written permission to perform work outside of the prescribed hours;
 - When work is necessary in an emergency situation to remedy or prevent damage to persons or property.

Tiburon Groundborne Vibration Regulation

The Town of Tiburon has not adopted any thresholds for construction or operational groundborne vibration impacts.

ENVIRONMENTAL IMPACTS

The primary sources of noise and groundborne vibration associated with the proposed project would be construction activities at the project site, and project-related traffic volumes and new stationary sources (such as heating, ventilation, and air conditioning units) associated with operation of the library addition.

Thresholds of Significance

The proposed project would normally have a significant effect on the environment if it would:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Expose persons to or generate excessive groundborne vibration or groundborne noise levels;
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

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- 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 airstrip, expose people residing or working in the project area to excessive noise levels; or
 - For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

Section 13-6 of the Tiburon Municipal Code prohibits construction activities that are covered by an issued permit by the Town to occur between the hours of 5:00 P.M. and 7:00 A.M. Monday through Friday, and between 4:00 P.M. and 9:30 A.M. on Saturday. In addition, only quiet work is allowed to be performed on Saturdays, which requires that construction-related noise levels be inaudible beyond the property line of the construction site. All construction activities are also prohibited on Sundays and on holidays observed by the Town of Tiburon, including New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. In addition, the Noise Element of the Town of Tiburon General Plan sets forth Policy N-10 with regards to construction noise, which requires standard quiet construction methods be used where feasible and when construction activities take place within 500 feet of noise-sensitive areas. Thus, violations of these provisions by the proposed project would constitute a significant noise impact during construction.

The State CEQA Guidelines do not define the levels at which permanent increases in ambient noise are considered "substantial." As discussed previously in this section, a noise level increase of 3 dBA is barely perceptible to most people, a 5 dBA increase is readily noticeable, and a difference of 10 dBA would be perceived as a doubling of loudness. Based on this information, the following thresholds would apply to the operational characteristics of the proposed project:

- A noise increase of less than 3 dBA: not discernable; not significant.
- A noise increase between 3 dBA and 5 dBA: noticeable, but not significant, if noise levels remain below the Town's noise level standard for that land use as identified in Table IV.G-8.
- A noise increase of 3 dBA or greater: significant, if the noise increase would meet or exceed the Town's noise level standard for that land use as identified in Table IV.G-8.
- A noise increase of 5 dBA or greater: significant.

The State CEQA Guidelines also do not define the levels at which a temporary increase in noise is considered "excessive." In addition, the Town of Tiburon has not adopted any numerical thresholds for construction noise impacts and the Tiburon Municipal Code primarily regulates construction noise through construction hour limitations. However, temporary noise impacts during construction are considered significant if they would be substantially greater than existing ambient noise levels, would substantially interfere with affected land uses, would continue for a substantial period, or would affect noise-sensitive uses during the nighttime. The Town considers an increase in existing ambient noise levels of 5 dBA or greater at noise-sensitive receptor locations to be significant.

The State CEQA Guidelines do not define the levels at which groundborne vibration or groundborne noises are considered “excessive.” Thus, in terms of construction-related vibration impacts on buildings, the adopted guidelines/recommendations by the FTA and Caltrans to limit groundborne vibration based on the age and/or condition of the structures that are located in close proximity to construction activity are used in this analysis to evaluate potential groundborne vibration impacts. As the PPV vibration standard of 0.08 inch per second recommended by Caltrans for historical buildings or buildings that are in poor condition is more stringent than the FTA’s adopted criteria of 0.12 inch per second for buildings that are extremely susceptible to vibration damage, the Caltrans recommended standard will be used in this analysis for historic buildings. Based on the FTA and Caltrans criteria, construction impacts relative to groundborne vibration would be considered significant if the following were to occur:

- Project construction activities would cause a PPV groundborne vibration level to exceed 0.5 inches per second at any building that is constructed with reinforced-concrete, steel, or timber;
- Project construction activities would cause a PPV groundborne vibration level to exceed 0.3 inches per second at any engineered concrete and masonry buildings;
- Project construction activities would cause a PPV groundborne vibration level to exceed 0.2 inches per second at any non-engineered timber and masonry buildings; or
- Project construction activities would cause a PPV ground-borne vibration level to exceed 0.08 inches per second at any historical building or building that is extremely susceptible to vibration damage.

In terms of groundborne vibration impacts associated with human annoyance, this analysis uses the FTA’s vibration impact thresholds for sensitive buildings, residences, and institutional land uses under conditions where there are an infrequent number of events per day. These thresholds are 65 VdB at buildings where vibration would interfere with interior operations, 80 VdB at residences and buildings where people normally sleep, and 83 VdB at other institutional buildings. The 65 VdB threshold applies to typical land uses where vibration would interfere with interior operations, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipments include, but are not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. The 80 VdB threshold applies to all residential land uses and any buildings where people sleep, such as hotels and hospitals. The 83 VdB threshold applies to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

Project Impacts

Since the project site is not located within two miles of a public airport or public use airstrip, and is not within the vicinity of a private airstrip, the proposed project would have no impact related to aircraft or airport noise. As such, no further analysis of these thresholds of significance is required.

Therefore, the following impact analysis addresses the remaining thresholds of significance listed above.

Impact NOISE-1: Implementation of the proposed project may expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (LTS/M)

Construction Noise

As stated in Section III (Project Description) of the DEIR, the proposed project would expand the existing Belvedere-Tiburon Public Library through the construction of a two-story addition. The existing 10,500 sf Library (11,990 sf including a mechanical mezzanine area) would be expanded by 18,000 sf to 28,500 sf (29,990 sf including the mechanical mezzanine area) in floor area. The project would also result in changes to vehicular access points; changes to site parking, including the installation of a new fifty-two (52) car parking area; and relocation of the existing Zelinsky Park. Approximately fifty-one (51) existing parking spaces would be eliminated by the project.

Construction would occur over a 14 to 18 month period. This includes demolition, grading, site preparation, building construction, finishing, and paving. These types of construction activities would require the use of heavy equipment, smaller power tools, generators, and other sources of noise. During each stage of development, there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment operating and the location of the activity. The U.S. EPA has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. The U.S. EPA's data pertaining to the typical noise range of construction equipment is presented in Table IV.G-9 and the data pertaining to the typical outdoor noise levels for specific construction activities is presented in Table IV.G-10.

**Table IV.G-9
Noise Range of Typical Construction Equipment**

Construction Equipment	Noise Level in dBA L_{eq} at 50 Feet ^a
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-82
Saws	72-82
Pneumatic Impact Equipment	83-88
Jackhammers	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95

**Table IV.G-9
Noise Range of Typical Construction Equipment**

Construction Equipment	Noise Level in dBA L _{eq} at 50 Feet ^a
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

^a Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.
Source: U.S. EPA, *Noise from Construction Equipment & Operations, Building Equipment & Home Appliances*, PB 206717, 1971.

**Table IV.G-10
Typical Outdoor Construction Noise Levels**

Construction Phase	Noise Levels at 50 Feet with Mufflers (dBA L _{eq})	Noise Levels at 60 Feet with Mufflers (dBA L _{eq})	Noise Levels at 100 Feet with Mufflers (dBA L _{eq})	Noise Levels at 200 Feet with Mufflers (dBA L _{eq})
Ground Clearing	82	80	76	70
Excavation, Grading	86	84	80	74
Foundations	77	75	71	65
Structural	83	81	77	71
Finishing	86	84	80	74

Source: United States Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, PB 206717, 1971; Christopher A. Joseph & Associates, February 2010.

The noise levels shown in Table IV.G-10 represent composite noise levels associated with typical construction activities, which take into account both the number and spacing of heavy construction equipment that are typically used during each phase of construction. Noise levels would diminish notably with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 84 dBA L_{eq} measured at 50 feet from the noise source to the receptor would reduce to 78 dBA L_{eq} at 100 feet from the source to the receptor, and reduce by another 6 dBA L_{eq} to 72 dBA L_{eq} at 200 feet from the source to the receptor.

During construction of the proposed project, the on-site sensitive receptors would consist of the occupants of the existing library building and Town Hall building.⁶ The nearby off-site sensitive receptors include the single family residences 100 feet to the southwest, the multi-family residences 190 feet to the north, and the Point Tiburon Marsh Condominiums 250 feet to the east. Due to the use of construction equipment during the construction phase, the proposed project would expose the existing on-site and off-site sensitive receptors to additional sources of noise. As shown in Table IV.G-10, outdoor noise levels at

⁶ Although the existing on-site Town Hall building is not considered to be a noise-sensitive land use, this receptor is analyzed in this discussion due to its proximity to the existing library building.

noise-sensitive receptors 50 feet from the noise source could range from 77 L_{eq} to 86 L_{eq} with the use of noise-attenuating devices. Table IV.G-11 shows the peak construction noise levels that would occur at sensitive land uses during construction activities at the project site compared to the existing daytime ambient noise levels at these sensitive land uses.

Table IV.G-11
Exterior Noise at Sensitive Uses From Project Construction

Sensitive Land Uses	Location	Approximate Distance to Project Site Boundary (ft.)	Existing Monitored Daytime Ambient Noise Levels (dBA L_{eq})	Estimated Peak Construction Noise Levels (dBA L_{eq})	Noise Level Increase
Existing Library Building	On-site	0	62.8	86.0	23.2
Existing Town Hall Building	On-site	30 ^a	70.8	90.4	19.6
Single-family residences	Located southwest of the project site along Tiburon Blvd.	100	70.0	80.0	10.0
Multi-family residences	Located north of the project site, across Mar West Street	190	63.7	74.6	10.9
Multi-family residences	Point Tiburon Marsh Condominiums to the east of the project site	250	61.6	72.5	10.9
<p>^a As the existing Town Hall Building is located onsite, the distance from the area of construction activity for the proposed project to the Town Hall building is used.</p> <p>Source: Christopher A. Joseph and Associates, July 2009; Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Final Report, May 2006.</p>					

As shown in Table IV.G-11, the peak construction noise levels experienced by the sensitive receptors would range from approximately 72.5 dBA L_{eq} at the Point Tiburon Marsh Condominiums located east of the project site to approximately 86 dBA L_{eq} at the on-site existing library building with the use of mufflers on the construction equipment. However, the increase in noise levels at the sensitive receptors during construction at the project site would be temporary in nature and would not generate continuously high noise levels, although occasional single-event disturbances from construction are possible. Additionally, while the estimated construction noise levels at each of the off-site locations would be the loudest when construction activities are occurring at an area within the project site that is nearest to the off-site location, the majority of the time noise levels at these off-site locations would be reduced as construction activities conclude or move to another more distant location of the project site. Thus, the highest noise levels that would be experienced by the off-site receptors shown in Table IV.G-11 would only occur for a limited duration during construction of the proposed project. In the later phases of project construction (during interior building construction), noise levels would also be reduced due to the newly

erected physical structures that interrupt noise transmission from the project to off-site receptors. Thus, the highest noise levels that would be experienced by the sensitive receptors would only occur for a limited duration during construction of the proposed project.

As discussed previously, Section 13-6 of the Tiburon Municipal Code requires that all construction work that is covered by an issued permit by the Town to be limited to between the hours of 7:00 A.M. and 5:00 P.M., Monday through Friday, and between 9:30 A.M. and 4:00 P.M. on Saturdays. In addition, only quiet work is allowed to be performed on Saturdays, such that noise from any source associated with the permitted work, including but not limited to construction activity, amplified sound, and worker's voices, would not be plainly audible beyond the property line. The construction activities for the proposed project would comply with these hours of operation. In addition, Policy N-1- of the Town's General Plan Noise Element requires that standard quiet construction methods be used where feasible and when construction activities take place within 500 feet of noise-sensitive areas. As such, Mitigation Measures NOISE-1a through NOISE-1g are recommended for the proposed project, which requires the implementation of noise reduction devices and techniques during construction at the project site to reduce the noise levels associated with construction of the proposed project to the maximum extent feasible.

Mitigation Measure NOISE-1a. Construction of the proposed project shall be restricted to the hours of 7:00 A.M. to 5:00 P.M. Monday through Friday, and 9:30 A.M. to 4:00 P.M. on Saturdays. Only quiet work is allowed to be performed on Saturdays, such that noise from any source associated with the permitted work, including but not limited to construction activity, amplified sound, and worker's voices shall not be plainly audible beyond the property line. Work covered by a permit shall not be performed on Sunday or on holidays observed by the Town of Tiburon.

Mitigation Measure NOISE-1b. Noise and groundborne vibration construction activities whose specific location on the project site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be conducted as far as possible from the nearest noise- and vibration-sensitive land uses.

Mitigation Measure NOISE-1c. Construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.

Mitigation Measure NOISE-1d. The use of those pieces of construction equipment or construction methods with the greatest peak noise generation potential shall be minimized. Examples include the use of drills and tractors.

Mitigation Measure NOISE-1e. The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices.

Mitigation Measure NOISE-1f. Barriers such as plywood structures or flexible sound control curtains shall be erected between the proposed project and sensitive receptors to minimize the amount of noise to the maximum extent feasible during construction.

Mitigation Measure NOISE-1g. All construction truck traffic shall be restricted to truck routes approved by the Town, which shall avoid residential areas and other sensitive receptors to the extent feasible.

Thus, as the hours of construction at the project site would comply with the City's requirements and Mitigation Measures NOISE-1a through NOISE-1g would be implemented, the construction-related noise impacts of the proposed project, with regards to compliance with the Town's General Plan and Municipal Code, would be *less than significant*.

Operational Noise

Potential sources of noise associated with the operation of the proposed project include on-site and off-site vehicular traffic, and on-site mechanical equipment. Off-site vehicular traffic may increase the ambient noise levels at affected intersections (as identified by the traffic study) and on-site vehicular traffic may increase noise levels in and around the parking areas. The on-site mechanical equipment considered in this noise analysis includes rooftop mechanical equipment and heating, ventilation, and air conditioning (HVAC) units, exhaust fans, etc.

Off-Site Vehicular Noise

The increase in traffic resulting from implementation of the proposed project would increase the ambient noise levels at sensitive off-site locations in the project vicinity. These concerns were addressed using the FHWA-RD-77-108 model, which calculates the Ldn noise level for a particular reference set of input conditions, based on site-specific traffic volumes, distances, speeds and/or noise barriers. Based on the traffic report prepared for the proposed project, included as Appendix F to this Draft EIR, in combination with an analysis of the surrounding land uses, roadway noise levels were forecasted to determine if the proposed project's vehicular traffic would result in a significant impact at off-site noise-sensitive receptor locations.

Off-site locations in the project vicinity would experience a slight increase in noise resulting from the additional traffic generated by the proposed project. The increases in noise levels at selected roadway segments located in proximity to the project site are identified in Table IV.G-12. Table IV.G-12 identifies the changes in future noise levels along the study-area roadway segments in the project vicinity.

As shown in Table IV.G-12, the proposed project would increase local noise levels by a maximum of 2.0 dBA Ldn at the roadway segment of Mar West Street, north of Tiburon Boulevard, which would not exceed the identified thresholds of significance. As the increase in local noise levels at all of the analyzed roadway segments resulting from implementation of the proposed project would not exceed the identified 3 dBA and 5 dBA Ldn thresholds, this impact would be *less than significant*. In addition, as the other roadway segments that are located even further away from the project site would experience less traffic increases due to the proposed project, the increase in local noise levels at these roadway segments would also not exceed the identified thresholds of significance, and impacts would be *less than significant*.

**Table IV.G-12
Predicted Future Roadway Noise Levels Off-Site**

Roadway Segment	Existing Land Uses Along Roadway Segment	Noise Levels in dBA L _{dn}				
		Future (2020) Without Project	Future (2020) With Project	Increase	Significance Threshold (dBA) ^a	Significant?
Cove Road, west of Mar West Street	Residential	47.8	48.2	0.4	5.0	No
Cove Road, east of Mar West Street	Residential & Commercial	46.1	46.1	0.0	5.0	No
Tiburon Boulevard, west of Mar West Street	Park & Residential	63.5	63.7	0.2	5.0	No
Tiburon Boulevard, east of Mar West Street	Commercial	63.0	63.1	0.1	5.0	No
Tiburon Boulevard, west of Beach Road	Commercial	62.2	62.4	0.2	5.0	No
Tiburon Boulevard, east of Beach Road	Commercial	60.8	61.0	0.2	5.0	No
Mariner Way, west of Mar West Street	Residential	46.8	47.4	0.6	5.0	No
Mar West Street, north of Tiburon Boulevard	Library & Office	56.8	58.8	2.0	5.0	No
Mar West Street, south of Mariner Way	Library & Office	55.8	56.6	0.8	5.0	No
Mar West Street, north of Mariner Way	Residential	55.6	55.8	0.2	5.0	No
Beach Road, north of Tiburon Boulevard	Commercial	52.5	52.6	0.1	5.0	No
Beach Road, south of Tiburon Boulevard	Commercial	55.9	56.0	0.1	5.0	No

^a For the purpose of this analysis, a project would have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in L_{dn} to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dBA or greater noise increase (see Table IV.G-8, Noise and Land Use Compatibility Guidelines). Thus, the significance threshold would be 3 dBA if the noise increase resulting from the proposed project would meet or exceed the City’s 70 dBA CNEL noise level standard at residential and library uses, and 75 dBA CNEL noise level standard at commercial and office uses, which are still within the “conditionally acceptable” noise category for those land uses; however, the significance threshold would be 5 dBA if the noise increase would be below the City’s 70 dBA CNEL noise level standard for residential and library uses, and 75 dBA CNEL noise level standard for commercial and office uses. Along roadway segments that have multiple land uses (e.g., residential and commercial, residential and office, etc.), the noise level standard for the more noise-sensitive land use was used, which would allow for a conservative analysis.

Traffic Information Source: DKS Associates, Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, February 17, 2010.

Table Source: Christopher A. Joseph and Associates, February 2010. Calculation data and results are provided in Appendix D.

On-Site Vehicular Noise

On-site vehicular noise would be generated mainly by activities within the 52-space proposed parking lot located behind the existing and proposed library facilities. Sources of noise within the parking areas would include engines accelerating, doors slamming, car alarms, and people talking. Noise levels within

the parking areas would fluctuate based on the amount of automobile and human activity, with noise levels highest in the early morning and evening when the largest number of people would enter and exit the project site.

Based on methodology provided by the FTA⁷, the maximum hourly Leq and 24-hour Leq (in Ldn) for the proposed parking lot at 50 feet away would be approximately 47.6 dBA Leq and 45.6 dBA Ldn, respectively, given that the proposed project would generate 1,012 daily net new trips to the project site, including 131 “net-new” peak hour trips. The identified threshold of significance for the library “conditionally acceptable” noise level established by the Town of Tiburon General Plan (Tiburon 2020) Noise Element is 70 dBA Ldn (based on a 24-hour average). Since the 24-hour Leq for the proposed parking lot at 50 feet away is less than this established threshold of significance, the potential noise impacts associated with parking from implementation of the proposed project would be *less than significant*.

On-Site, Non-Vehicular Noise

As part of the proposed project, new rooftop mechanical equipment and heating, ventilation, and air conditioning (HVAC) units and exhaust fans may be installed on the proposed buildings. Large HVAC systems can result in noise levels that can reach as high as 65 dBA Leq at 50 feet from the equipment. While these types of HVAC systems are used more for large retail stores, it is assumed that these systems would be used for the proposed project in an effort to conduct a conservative analysis. Given that the longest hours of operation of the library during the week is from 10:00 A.M. to 9 P.M. (Tuesdays through Thursdays), the resulting noise level at 50 feet from the new HVAC system could reach as high as 62 dBA Ldn. At the nearest noise-sensitive receptors, which are the single-family residences located approximately 100 feet southwest of the project site along Tiburon Boulevard, the resulting noise level from the new HVAC system would be 56 dBA Ldn. As this noise level would not exceed the 60 dBA Ldn noise level that the Town considers to be “normally acceptable” for residences (see Table IV.G-8), this noise impact would be *less than significant*.

Impact NOISE-2: Implementation of the proposed project may expose persons to or generate excessive groundborne vibration or groundborne noise levels. (SU)

Construction-Related Groundborne Vibration

Construction activities that would occur within the project site would include grading, excavation, and building construction, which would have the potential to generate low levels of groundborne vibration. Table IV.G-13 identifies various PPV and RMS velocity (in VdB) levels for the types of construction equipment that would operate during the construction of the proposed project.

⁷ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, page 5-11, May 2006.

**Table IV.G-13
Vibration Source Levels for Construction Equipment**

Equipment	Approximate PPV (in/sec)					Approximate RMS (VdB)				
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Caisson Drilling	0.089	0.031	0.024	0.017	0.011	87	78	76	73	69
Loaded Trucks	0.076	0.027	0.020	0.015	0.010	86	77	75	72	68
Jackhammer	0.035	0.012	0.009	0.007	0.004	79	70	68	65	61
Small Bulldozer	0.003	0.001	0.0008	0.0006	0.0004	58	49	47	44	40

Note: in/sec = inches per second.
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Final Report, 2006; Christopher A. Joseph & Associates, May 2009.

As discussed in Table IV.G-11, the nearest sensitive receptors to potential construction activities would be the occupants of the existing library building and Town Hall building located on the project site.⁸ Since these two buildings are located in proximity to the proposed project's construction area, potential vibration impacts associated with building damage may result. As presented in Table IV.G-13, vibration velocities from certain construction equipment could reach as high as approximately 0.089 inches per second PPV (RMS velocity level of 87 VdB) at 25 feet from the source activity. These exposure levels would not exceed the FTA and Caltrans existing structure threshold of 0.20 PPV (non-engineered timber and masonry buildings). Thus, vibration impacts associated with building damage would be less than significant.

With respect to vibration impacts associated with human annoyance, a maximum groundborne vibration exposure level of 87 VdB occurring at 25 feet from the source of construction activity would exceed the infrequent⁹ FTA vibration threshold for institutional uses (83 VdB). Therefore, as the existing on-site library building is an institutional use, the potential for construction activities associated with the project to expose persons or existing structures to excessive groundborne vibration or groundborne noise levels that would result in human annoyance would be *significant and unavoidable*.¹⁰ As required by CEQA,

⁸ *Although the existing on-site Town Hall building is not considered to be a noise-sensitive land use, this receptor is analyzed in this discussion due to its proximity to the existing library building.*

⁹ *It is not anticipated that construction of the project would include the regular use of construction equipment typically associated with intense groundborne vibration, such as bulldozers, caisson drilling, or loaded trucks. "Infrequent events" is defined by the Federal Transit Administration as being fewer than 30 vibration events of the same kind per day.*

¹⁰ *The FTA does not have a vibration threshold pertaining to human annoyance for office uses such as the existing Town Hall building.*

the project would still implement all feasible construction noise mitigation measures (outlined in Mitigation Measures NOISE-1a through NOISE-1g above) to lessen the potential impact as much as possible, which includes the construction time restrictions outlined in the Tiburon Municipal Code and the location of vibration-related construction activities as far as possible from the nearest noise- and vibration-sensitive land uses.

In terms of the nearest off-site sensitive receptors, the distance between these receptors and the project site is sufficient enough such that groundborne vibration impacts associated with building damage and human annoyance would not exceed the FTA's established thresholds. As the nearest off-site receptor, which is the single-family residence located southwest of the project site, is located approximately 100 feet from the project site the vibration velocity generated by the on-site equipment would not exceed the 0.2 PPV threshold for non-engineered timber and masonry buildings. Based on the methodology provided by the FTA¹¹, the maximum vibration level at this nearest off-site receptor would be approximately 69 VdB during project construction, which would not exceed the 80 VdB threshold for residences. As such, groundborne vibration impacts at all of the identified off-site receptors (i.e., the single-family residence located southwest of the project site along Tiburon Boulevard, the multi-family residence located north of the project site, across Mar West Street, and the Point Tiburon Marsh Condominiums to the east of the project site) would be *less than significant*.

Operational Vibration

The proposed project would not include stationary equipment that would result in high vibration levels, which are more typical for large commercial and industrial projects. While groundborne vibration at the project site and immediate vicinity may currently result from heavy-duty vehicular travel (e.g., refuse trucks, delivery trucks, etc.) on the nearby local roadways, the proposed land uses at the project site would not result in the increased use of these existing heavy-duty vehicles on the local roadways. While refuse trucks would be used for the disposal of solid waste at the project site, these trips would typically only occur once a week and would not be any different than those presently occurring at the project site for the existing library use. As such, vibration impacts associated with operation of the proposed project would be *less than significant*.

Impact NOISE-3: Implementation of the proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (LTS)

As discussed above in Impact NOISE-1, the only substantial permanent increase in ambient noise levels in the project vicinity would result from the increase in traffic associated with the operation of the project. As shown in Table IV.G-12, the proposed project would increase local noise levels by a maximum of 2.0 dBA Ldn at the roadway segment of Mar West Street, north of Tiburon Boulevard, which would not exceed the identified thresholds of significance. As the increase in local noise levels at all of the analyzed

¹¹ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, page 12-11, May 2006.

roadway segments resulting from implementation of the proposed project would not exceed the identified 3 dBA and 5 dBA Ldn thresholds, this impact would be *less than significant*. In addition, as the other roadway segments that are located even further away from the project site would experience less traffic increases due to the proposed project, the increase in local noise levels at these roadway segments would also not exceed the identified thresholds of significance, and impacts would be *less than significant*.

Impact NOISE-4: Implementation of the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (SU)

As discussed in Impact NOISE-1 and shown in Table IV.G-11, the peak construction noise levels at all the nearest on-site (i.e., existing library) and off-site, noise-sensitive locations (i.e., the single-family residence located southwest of the project site along Tiburon Boulevard, the multi-family residence located north of the project site, across Mar West Street, and the Point Tiburon Marsh Condominiums to the east of the project site) would all experience an increase in their daytime ambient noise levels of 10 dBA L_{eq} or greater during construction of the proposed project. As discussed previously, the Town considers an increase in existing ambient noise levels of 5 dBA or greater at noise-sensitive receptor locations to be significant. Thus, because the construction noise generated at the project site would result in an increase of 5 dBA or more at the identified on-site and off-site receptors, a significant temporary or periodic increase in ambient noise levels at these receptors would occur. Therefore, construction activities associated with the proposed project would generate a substantial temporary increase in ambient noise levels in the project vicinity, resulting in a potential impact that would be *significant and unavoidable*. As required by CEQA, the proposed project would still implement all feasible construction noise mitigation measures, as outlined above in Mitigation Measures NOISE-1a through NOISE-1g. However, the implementation of these mitigation measures would not reduce this impact to a less-than-significant level.

CUMULATIVE IMPACTS

This cumulative impact analysis considers development of the proposed project in combination with ambient growth and other development projects within the vicinity of the proposed project. As noise is a localized phenomenon, and drastically reduces in magnitude as distance from the source increases, only projects and ambient growth in the nearby area could combine with the proposed project to result in cumulative noise impacts.

Based on the evaluation of thresholds of significance above, development of the proposed project in combination with related projects could result in an increase in construction-related and traffic-related noise. Future construction associated with related projects could result in a cumulatively significant impact with respect to temporary or periodic increases in ambient noise levels. However, in order to achieve a substantial cumulative increase in construction noise levels, more than one source emitting high levels of construction noise would need to be in close proximity to the proposed project. As there are currently no related projects that are located in close proximity to the project site such that they would

affect the same sensitive receptors as the proposed project, cumulative noise impacts associated with construction would be *less than significant*.

Cumulative development in the project area may result in the exposure of people to or the generation of excessive groundborne vibration. As mentioned above, no related projects are located in close proximity to the project site such that they would affect the same sensitive receptors as the proposed project. Therefore, cumulative impacts associated with groundborne vibration would be *less than significant*.

Cumulative mobile source noise impacts would occur primarily as a result of increased traffic on local roadways due to the proposed project and related projects within the study area. Therefore, cumulative traffic-generated noise impacts were assessed for the year 2020 by evaluating the increase in traffic volumes from the implementation of the proposed project and future related projects along the roadway segments in the project vicinity. The noise levels associated with existing traffic volumes and cumulative base traffic volumes with the proposed project (i.e., future cumulative traffic volumes) are identified below in Table IV.G-14. As shown, cumulative development along with the proposed project would increase local noise levels by a maximum of 3.8 dBA CNEL at the roadway segment of Mar West Street, North of Tiburon Boulevard. As the increase in roadway noise would not exceed the 5.0 dBA L_{dn} threshold at any of the study roadway segments, the noise increase would not be substantial. Therefore, the cumulative impact associated with mobile source noise would be *less than significant*.

Table IV.G-14
Cumulative Project Roadway Noise Impacts with Proposed Project

Roadway Segment	Existing Land Uses Located Along Roadway Segment	Noise Levels in dBA L _{dn}				
		Existing (2009) Traffic Volumes	Future (2020) With Project Traffic Volumes	Cumulative Increase	Significance Threshold ^a	Significant?
Cove Road, west of Mar West Street	Residential	47.8	48.2	0.4	5.0	No
Cove Road, east of Mar West Street	Residential & Commercial	46.1	46.1	0.0	5.0	No
Tiburon Boulevard, west of Mar West Street	Park & Residential	62.5	63.7	1.2	5.0	No
Tiburon Boulevard, east of Mar West Street	Commercial	62.2	63.1	0.9	5.0	No
Tiburon Boulevard, west of Beach Road	Commercial	61.2	62.4	1.2	5.0	No
Tiburon Boulevard, east of Beach Road	Commercial	59.5	61.0	1.5	5.0	No
Mariner Way, west of Mar West Street	Residential	46.8	47.4	0.6	5.0	No
Mar West Street, north of Tiburon Boulevard	Library & Office	55.0	58.8	3.8	5.0	No
Mar West Street, south of Mariner Way	Library & Office	55.1	56.6	1.5	5.0	No

**Table IV.G-14
Cumulative Project Roadway Noise Impacts with Proposed Project**

Roadway Segment	Existing Land Uses Located Along Roadway Segment	Noise Levels in dBA L _{dn}				
		Existing (2009) Traffic Volumes	Future (2020) With Project Traffic Volumes	Cumulative Increase	Significance Threshold ^a	Significant?
Mar West Street, north of Mariner Way	Residential	54.2	55.8	1.6	5.0	No
Beach Road, north of Tiburon Boulevard	Commercial	52.5	52.6	0.1	5.0	No
Beach Road, south of Tiburon Boulevard	Commercial	55.7	56.0	0.3	5.0	No

^a For the purpose of this analysis, a project would have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in L_{dn} to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dBA or greater noise increase (see Table IV.G-8, Noise and Land Use Compatibility Guidelines). Thus, the significance threshold would be 3 dBA if the noise increase resulting from the proposed project would meet or exceed the City’s 70 dBA CNEL noise level standard at residential and library uses, and 75 dBA CNEL noise level standard at commercial and office uses, which are still within the “conditionally acceptable” noise category for those land uses; however, the significance threshold would be 5 dBA if the noise increase would be below the City’s 70 dBA CNEL noise level standard for residential and library uses, and 75 dBA CNEL noise level standard for commercial and office uses. Along roadway segments that have multiple land uses (e.g., residential and commercial, residential and office, etc.), the noise level standard for the more noise-sensitive land use was used, which would allow for a conservative analysis.

Traffic Information Source: DKS Associates, Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, February 17, 2010.

Table Source: Christopher A. Joseph and Associates, February 2010. Calculation data and results are provided in Appendix D.

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IV. ENVIRONMENTAL IMPACT ANALYSIS

H. TRANSPORTATION/TRAFFIC

INTRODUCTION

This section of the Draft EIR evaluates the potential transportation and traffic impacts associated with the implementation of the proposed project. This includes the potential for the proposed project to result in impacts associated with the deterioration of intersection LOS, delays at intersections, deterioration of roadway LOS, unsafe circulation conditions, design conflicts with supporting alternative transportation, and inadequate emergency access. Finally, mitigation measures intended to reduce impacts to transportation and traffic are proposed, where appropriate, to avoid or reduce significant impacts of the proposed project.

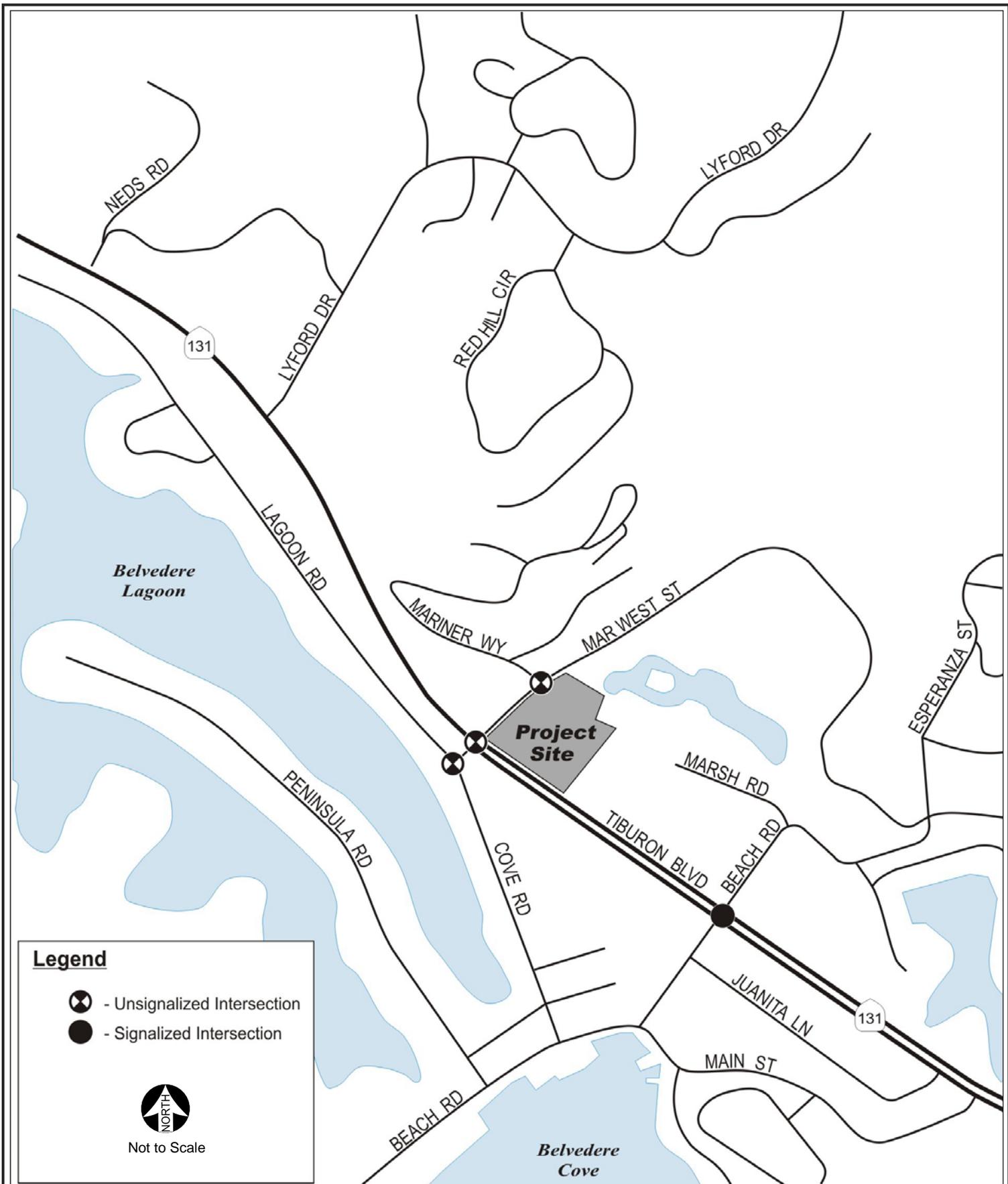
This section summarizes information contained in the *Belvedere - Tiburon Library Expansion Project EIR Traffic Impact Analysis*, prepared by DKS Associates, February 17, 2010. The transportation analysis represented in this study follows review and incorporation, where appropriate, of data from the *Belvedere-Tiburon Library Proposed Expansion General Plan Amendment and Rezoning Initial Study*, prepared for Belvedere-Tiburon Library Agency, March 2004. In addition, data provided in this report area based on recent correspondence and conversation with staff of the Town of Tiburon, and recent site visits conducted in March and April 2009.

ENVIRONMENTAL SETTING

The proposed project site is located at the northeast corner of the intersection of Tiburon Boulevard and Mar West Street. The project site is currently developed with the Belvedere-Tiburon Library (10,500 square feet) to the south, the Railroad Marsh to the north, Mar West Street to the west and, Zelinsky Park and Town Hall parking areas to the east. Abutting land uses include commercial, office, residential and some open space.

The project study area, which extends beyond the project site itself for the purpose of analyzing potential project impacts, is bounded by Mar West Street to the west, Mariner Way to the north, Lagoon Rode-Cove Road to the south, and Beach Road to the east. Figure IV.H-1 illustrates the project site location and roadway network. Figure III-6 in Section III (Project Description) illustrates the project site plan.

Vehicular access to the Library and Town Hall would be provided via Mar West Street near Mariner Way. This constitutes a change from current conditions, where vehicular access to both the Town Hall and Library are provided solely from Tiburon Boulevard. This report provides a general description of the transportation facilities in the project vicinity and summarizes existing, background, project, cumulative condition (no project) and cumulative conditions (with project) within the study area. Particular attention is given to impacts on vehicular, parking transit, bicycle and pedestrian facilities.



Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.

To evaluate traffic conditions, as well as provide a basis for comparison of conditions before and after project-generated traffic is added to the street system, intersection Level of Service (LOS) analysis was evaluated at four (4) study intersections. Based on consultation with Town of Tiburon staff, the following intersections were analyzed as part of the traffic impact analysis:

1. Mar West Street & Lagoon Road/Cove Road
2. Mar West Street & Tiburon Boulevard
3. Mar West Street & Mariner Way
4. Beach Road & Tiburon Boulevard

The list of study intersections was based on the size of the project and the number of trips they would potentially generate, the surrounding study area, and with consideration to those intersections that are most likely to be impacted by the proposed project. The operation of these intersections was evaluated during the weekday P.M. (4:00 P.M. to 6:00 P.M.) peak period.

The Transportation Authority of Marin (TAM) is the Congestion Management Agency (CMA) for Marin County and requires the evaluation and assessment of regional roadways within the study area that are designated as Congestion Management Program (CMP) facilities.

The designated CMP¹ system within the study area includes:

- State Route 131 (SR 131) – Tiburon Boulevard: from U.S. 101 to Main Street

In addition to intersection CMP roadway analysis, an evaluation of the site plan, on-site circulation, transit service, access and egress points, proposed parking supply and expected demand is contained in this section. The following discussion presents an analysis of existing conditions of various transportation system components including roadways, intersections, transit service, bicycles, pedestrians, and parking.

Analysis Methodology

To evaluate existing traffic conditions, as well as provide a basis for comparison of conditions before and after project-generated traffic is added to the street system, the Level of Service (LOS) was evaluate at four (4) key local intersections. Per the Town of Tiburon requirements, traffic conditions for the study intersections were evaluated using the methodologies provided in the 2000 Highway Capacity Manual (HCM). For reference purposes, LOS as defined in the HCM is a quality measure describing operating conditions within a traffic stream. It is generally described in terms such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

¹ Source: Marin County Congestion Management Program. 2009 Report Update.
<http://www.tam.ca.gov/Modules/ShowDocument.aspx?documentid=2650>

LOS at study intersections was calculated using TRAFFIX software for signalized and unsignalized intersections. The LOS evaluation indicates the degree of congestion that occurs during peak travel periods and is the principal measure of roadway and intersection performance. Level of Service can range from “A” representing free-flow conditions, to “F” representing extremely long delays. LOS B and C signify stable conditions with acceptable delays. LOS D is typically considered acceptable for a peak hour in urban areas. LOS E is approaching capacity and LOS F represents conditions at or above capacity.

Scenario 1: Existing Condition. Level of service based on existing Peak-Hour volumes, lane geometry, and traffic control (e.g., signal timing, signal phasing, STOP control, etc.).

Scenario 2: Background Condition. Existing peak--hour volumes plus growth from approved, but not yet constructed, developments in the vicinity of the proposed project that would occur prior to the completed construction of the proposed project.

Scenario 3: Project Condition. Background peak--hour volumes plus project-generated traffic estimated for proposed development project. This scenario assumes full buildout of the proposed 18,000 square foot expansion.

Scenario 4: Cumulative Year (No Project) Condition. Level of service based on background peak-hour volumes plus forecasted growth estimated by buildout of the Tiburon General Plan (Year 2020). Forecasted growth is derived from the Town of Tiburon’s PM peak hour traffic model .

Scenario 5: Cumulative Year 2020 with Project Condition. Level of service based on Cumulative Year Baseline No Project volumes plus traffic generated by the proposed project. This scenario assumes full buildout of the proposed 18,000 square foot expansion.

Unsignalized Intersections

Level of service for unsignalized intersections (four-way stop controlled, and two-way stop controlled) is based on the “average control delay” expressed in seconds per vehicle. For two-way stop controlled intersections, each approach to the intersection is evaluated separately and assigned a LOS. The level of service is not defined for the intersection as a whole. The level of service is based on the delay at the worst approach for two-way stop controlled intersections.

For single lane approaches, the control delay is computed as an average of all movements in that lane. For four-way stop controlled intersections, the LOS rating is based on the average control delay experience on all approaches.

Total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue position to the first-in queue position.

Table IV.H-1 provides definitions of LOS for unsignalized intersections.

**Table IV.H-1
Unsignalized Intersection – LOS Thresholds**

Level of Service	Average Control Delay (seconds/vehicle)	Description
A	≤ 10	Little or no delay
B	> 10 and ≤ 15	Short traffic delay
C	> 15 and ≤ 25	Average traffic delays
D	> 25 and ≤ 35	Long traffic delays
E	> 35 and ≤ 50	Very long traffic delays
F	> 50	Extreme delays potentially affecting other traffic movements in the intersection

Source: Transportation Research Board, Special Report 209, Highway Capacity Manual, Chapter 17-Unsignalized Intersections, 2000.
Notes: Worst Approach Delay (in seconds per vehicle)

Signalized Intersections

At signalized intersections, level of service is evaluated on the basis of average stopped delay for all vehicles at the intersection. Table IV.H-2 defines the levels of service for signalized intersections.

**Table IV.H-2
Signalized Intersection – LOS Thresholds**

Level of Service	Average Stopped Delay (seconds/vehicle)	Description
A	Delay ≤ 10.0	Free flow; minimal to no delay
B	$10.0 < \text{Delay} \leq 20.0$	Stable flow, but speeds are beginning to be restricted by traffic Condition; slight delays.
C	$20.0 < \text{Delay} \leq 35.0$	Stable flow, but most drivers cannot select their own speeds and feel somewhat restricted; acceptable delays.
D	$35.0 < \text{Delay} \leq 55.0$	Approaching unstable flow, and drivers have difficulty maneuvering; tolerable delays.
E	$55.0 < \text{Delay} \leq 80.0$	Unstable flow with stop and go; delays
F	Delay > 80.0	Total breakdown; congested conditions with excessive delays.

Source: Transportation Research Board, Special Report 209, Highway Capacity Manual, Chapter 16-Signalized Intersections, 2000.
Notes: ¹ Control Delay per vehicle (in seconds per vehicle)

Roadway/Arterial Segment Analysis

The LOS evaluation indicates the degree of congestion that occurs during peak travel periods and is the principal measure of roadway performance. Level of service can range from “A” representing free-flow conditions, to “F” representing extremely low speeds. LOS B and C signify stable conditions with acceptable delays. LOS D is typically considered acceptable for peak hour in urban areas. LOS E is approaching capacity and LOS F represents conditions at or above capacity with very low speeds, long delays and average speeds of less than half of the uncongested or free-flow speed.

The correlation between average travel speed (mph), volume-to-capacity (v/c) ratio and level of service is contained in Table IV.H-3 for CMP roadway segments. Note that the LOS criteria used in the Transportation System Performance Monitoring Report – 2008, traffic volumes were collected at one point along the roadway segment then divided by a predetermined roadway capacity to arrive at a v/c ratio.

**Table IV.H-3
CMP Roadway Segment Level of Service Thresholds**

Level of Service	Basic Freeway Segment Travel Speed (mph)	Major Arterial Segment Travel Speed (mph)	Basic Freeway (V/C)	Major Arterial (V/C)
A	>60	>25	0.35	0.60
B	57-60	20-25	0.54	0.70
C	54-56	13-19	0.77	0.80
D	47-53	10-13	0.93	0.90
E	30-46	7-9	1.00	1.00
F	<30	<7	>1.00	>1.00

Source: Marin County Congestion Management Program, 2009 Update. Adopted by Transportation Authority of Marin (TAM). <http://www.tam.ca.gov/Modules/ShowDocument.aspx?documentid=2650>

Existing Transportation System

Roadway Network

The Town of Tiburon roadway network is comprised on freeways, arterials, collectors and local streets. Figure IV.H-1 illustrates the roadway network. Regional access to Tiburon is provided via U.S. Highway 101 and Tiburon Boulevard (State Route 131).

U.S. Highway 101 (U.S. 101)

This freeway runs in the north-south direction and provides access to Tiburon via the interchange at Tiburon Boulevard (State Route 131). In the vicinity of the Town of Tiburon, U.S. 101 has four mixed-

use lanes in each direction. U.S. 101 has an Annual Average Daily Traffic² (AADT) of about 133,000 vehicles south of State Route 131 including 10,100 during the peak hour; and approximately 169,000 north of State Route 131 including 12,900 during the peak hour.

State Route 131 (Tiburon Boulevard)

This facility consists of a two to four-lane road that extends from U.S. 101 (Redwood Highway) its terminus at Main Street to the south where it becomes Paradise Drive. In the vicinity of the project, Tiburon Boulevard is designated as a Minor Arterial and has a posted speed limit of 30 mph. The roadway provides direct access to the proposed project.

Near the project site, Tiburon Boulevard carries an average of 13,400 vehicles per day east of San Rafael Avenue including 1,300 during the peak hour. Near Main Street, Tiburon Boulevard carries an average of 6,100 vehicles per day, including 580 during the peak hour.

Local Access

Key local roadways that provide access to the project study areas are described below.

Mar West Street – This facility is a two-lane roadway that runs in a north-south direction. It extends from Lagoon Road-Cove Road in the south to Paradise Drive in the east. Mar West Street has a posted speed limit of 25 mph and provides direct access to the proposed site.

Beach Road – This facility runs in a north-south direction and from the City of Belvedere in the south to Mar West Street in the north. It has a posted speed limit of 25 mph.

Lagoon Road – This facility is a two-lane roadway that runs in an east-west direction. It extends from San Rafael Avenue in the west to its terminus at Mar West Street where it becomes Cove Road.

Cove Road – This facility is a two-lane roadway that extends from Harbor Oak Drive to Mar West Street. Cove Road has a posted speed limit of 25 mph.

Mariner Way – This facility is a two-lane roadway that extends from Mar West Street in the west to Beach Road in the east.

Transit Services

Golden Gate Transit (GGT)³ provides commuter and regular service to San Francisco, Marin and Sonoma Counties. Golden Gate Transit currently provides local daily commuter and regular bus (fixed-route) service in Tiburon.

² <http://traffic-counts.dot.ca.gov/2008all/r101i.htm>

The GGT bus routes that would mostly be used as single or connecting routes within the study area are described below. Both, Route 8 and 19 provide service to the Tiburon Ferry Terminal Both, the Angel Island and Blue & Gold Ferry provide ferry service to/from the Tiburon Ferry Terminal.

Route 8 – Commute Bus Route travels along Beach Road and Tiburon Boulevard and provides weekday service between the Town of Tiburon (Tiburon Boulevard & Main Street) and the City of San Francisco (8th & Folsom). Buses depart from Tiburon at 6:32 a.m. and 7:23 a.m. and from San Francisco at 5:00 p.m. Weekend and holiday service is not provided. The nearest bus stop is located at the intersection of Tiburon Boulevard & Mar West Street directly in front the existing library. Bus stops are also located at Tiburon Boulevard & Beach Road.

Route 19 – Marin County Local Service travels along Tiburon Boulevard and provides weekday service (except holidays) between the Town of Tiburon (Tiburon Boulevard & Main Street) and Marin City (Donahue & Terners). In the southbound direction, buses depart from Tiburon between 6:53 a.m. and 6:45 p.m. with the first bus providing service only to the Redwood High East Parking Lot. Service is provided on 45-min to 60-minute headways between 7:20 a.m. and 6:45 p.m.

In the northbound direction, service is provided between 6:55a.m. and 7:15 p.m. with the first bus departing from Strawberry Village (Reed & Belvedere). Service is provided on one-hour headways between 7:16 a.m. to 7:15 p.m.

Weekend and holiday service is provided from Tiburon to Marin City between the hours of 7:17 a.m. and 7:17 p.m. on one-hour headways. Two additional buses provide service from Strawberry Village to Marin City and depart at 9:12 p.m. and 10:12 p.m.

In the northbound direction, service is provided from Marin City to Tiburon from 7:16 a.m. to 6:16 p.m. on one-hour headways. An earlier bus departs from Strawberry Village at 6:58 a.m. arriving in Tiburon (Tiburon Boulevard & Main St) at 7:09 .am.

The nearest bus stop is located at the intersection of Tiburon Boulevard & Mar West Street directly in front the existing library. Bus stops are also located at Tiburon Boulevard & Beach Road.

Figure IV.H-2 illustrates the bus transit facilities within the study area.

Ferry Service

Blue & Gold Fleet currently provides daily ferry service between the Town of Tiburon and San Francisco. Four morning commute trips are provided from the Tiburon Ferry Terminal to the Ferry Building between 6:00 a.m. and 8:45 a.m. on 50-minute headways and three trips during the p.m. peak hours with service provided between 5:00 p.m. and 6:40 p.m., on 50-minute headways. In addition, there are two morning

³ Golden Gate Transit, bus schedules effective December 13, 2009. <http://goldengatetransit.org/schedules/pages/Bus-Schedules.php>.



Not to Scale

Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.

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Environmental Planning and Research

Figure IV.H-2
Golden Gate Transit Bus Service

commute trips departing from the San Francisco Ferry Building to Tiburon at 7:15 a.m. and 8:15 a.m., and four trips between 4:25 p.m. and 7:15 p.m. on 1-hour headways.

Blue & Gold Fleet provides additional service outside of the commute hours via the Ferry Building and Pier 41, both with service to/from Tiburon.

The Angel Island-Tiburon Ferry⁴ provides year-round and holiday ferry service between Tiburon and Angel Island. Ferry service depends on the month and day of the year.

Bicycle & Pedestrian Facilities

DKS recently conducted an evaluation of all existing pedestrian facilities within the vicinity of the study area. Pedestrian facilities include sidewalks, crosswalks, ADA ramps, pedestrian signals and audible signals. In addition, DKS reviewed the Town of Tiburon Bicycle and Pedestrian Master Plan⁵ to assess the improvements recommended for the study area.

Bicycle Facilities

The 2008 Town of Tiburon Bicycle and Pedestrian Master Plan Update indicates existing bicycle facilities in the vicinity of the project. The existing system consists of three classifications of bicycle facilities:

- **Class I Bikeway.** Typically called a “bike path,” a Class I bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.
- **Class II Bikeway.** Often referred to as “bike lane,” a Class II bikeway provides a striped and stenciled lane for one-way travel on a street or highway. In the vicinity of the study area, bicycle lanes (Class II) are provided along Tiburon Boulevard.
- **Class III Bikeway.** Generally referred to as a “bike route,” a Class III bikeway provides for shared use with motor vehicle traffic and is identified primarily by signing. Optional Shared Roadway Bicycle Marking pavement stencils are also available for use on Class III bikeways which have on-street parallel parking.

In the Town of Tiburon bicycles are permitted on all roads with the exception of access-controlled freeways (i.e. U.S. 101). In the vicinity of the project site, bicycle lanes (Class II) are provided along

⁴ *The Angel Island-Tiburon Ferry.* <http://www.angelislandferry.com/index.php>.

⁵ *Town of Tiburon Bicycle and Pedestrian Master Plan.* Prepared by Alta Planning & Design. 2008 Update <http://www.ci.tiburon.ca.us/government/guidelines%20&%20ordinances/guidelines%20&%20handbooks/TiburonBicyclePlan2008.pdf>.

Tiburon Boulevard east of Mar West Street to Paradise Drive (west of Mar West Street).⁶ In addition, bicycle parking is provided on site for Library and Town Hall patrons.

The Tiburon Bicycle and Pedestrian Master Plan provides recommendations on safe and accessible routes and is intended to improve and enhance bicycle transportation in the Town of Tiburon. The proposed improvements include Class II facilities along Tiburon Boulevard between the Tiburon Town Limit to Trestle Glen Boulevard. The 2008 Update also identifies additional potential improvements that require future study and action by Town of Tiburon, they include:

- Improving the Richardson Bay Multi-Use Path (MUP) and bikeways at the Mar West Street/Tiburon Boulevard intersection, where it transitions from Class I to Class II, specifically the area immediately Class I Bikeway. Typically called a “bike path,” a Class I bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.
- Class II bicycle lanes are also proposed along Tiburon Boulevard to provide a direct connection between Tiburon, Strawberry and Mill Valley.

Pedestrian Facilities

DKS recently conducted an evaluation of all existing pedestrian facilities within the vicinity of the project study area. Pedestrian facilities include sidewalks, crosswalks, ADA ramps, pedestrian signals and audible signals.

Sidewalks

Based on recent field observations conducted by DKS staff, sidewalks are provided on all sides adjacent to the project site and on all streets within the vicinity of the project, except along Mariner Way. Sidewalks in the study area appear in good condition. Along Tiburon Boulevard there are continuous sidewalks, pedestrian scaled lighting and access to various bus routes. Sidewalks are present on almost all the major streets and most side streets, and are typically five feet in width.

Crosswalks

Crosswalks are provided at all study intersections within the project plan area except at the intersections of Mar West Street & Lagoon Road/Cove Road and Mar W Street & Mariner Way.

Town of Tiburon Bicycle and Pedestrian Master Plan

In addition, DKS reviewed the Town of Tiburon Bicycle and Pedestrian Master Plan to assess the pedestrian network improvements recommended for the study area. The plan also identifies capital projects that should be implemented on a citywide basis including:

⁶ *Town of Tiburon Bicycle and Pedestrian Master Plan. 2008 Update. Table 3-1 Existing Tiburon Bikeways.*

- Infill of walkway gaps.
- Curb Ramp Improvements: install curb ramps where missing, truncated domes, and perpendicular curb ramps.
- Signalized intersection improvements: revise pedestrian signal timing; install audible pedestrian signals at all signalized intersections.
- Uncontrolled crosswalk improvements: construct high-visibility crosswalk markings, curb extensions, in-street yield to pedestrian signs and in-pavement and overhead crosswalk lights.

The plan also identifies a number of priority pedestrian projects which involves crosswalk improvements at Tiburon Boulevard at the library and Mar West Street.

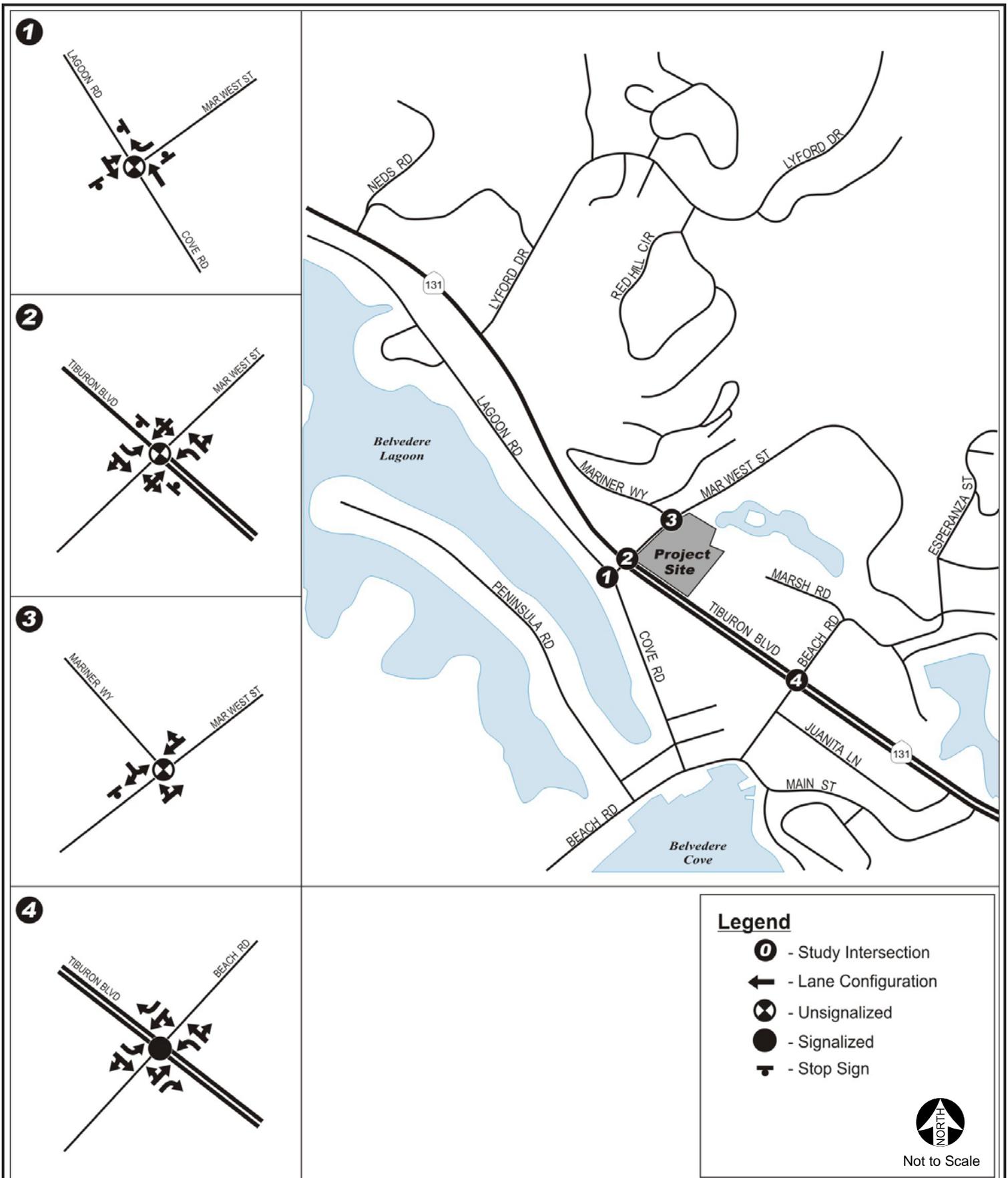
Existing Traffic Conditions

Vehicle turning movement counts were conducted at all study intersections in March 2009. Counts were conducted during a typical weekday P.M. peak period of 4:00 P.M. – 6:00 P.M. Intersection turning movement count surveys consisted of counting each vehicle at each study intersection location by turning movement, and included documenting intersection geometry diagrams, traffic control device (signalized or unsignalized), signal phasing and weather conditions. The operation of these intersections was evaluated during the weekday P.M. (4:00 P.M. – 6:00 P.M.) peak hour. For the purpose of this analysis, the peak hour represents the highest 60-minute period within the peak period observed.

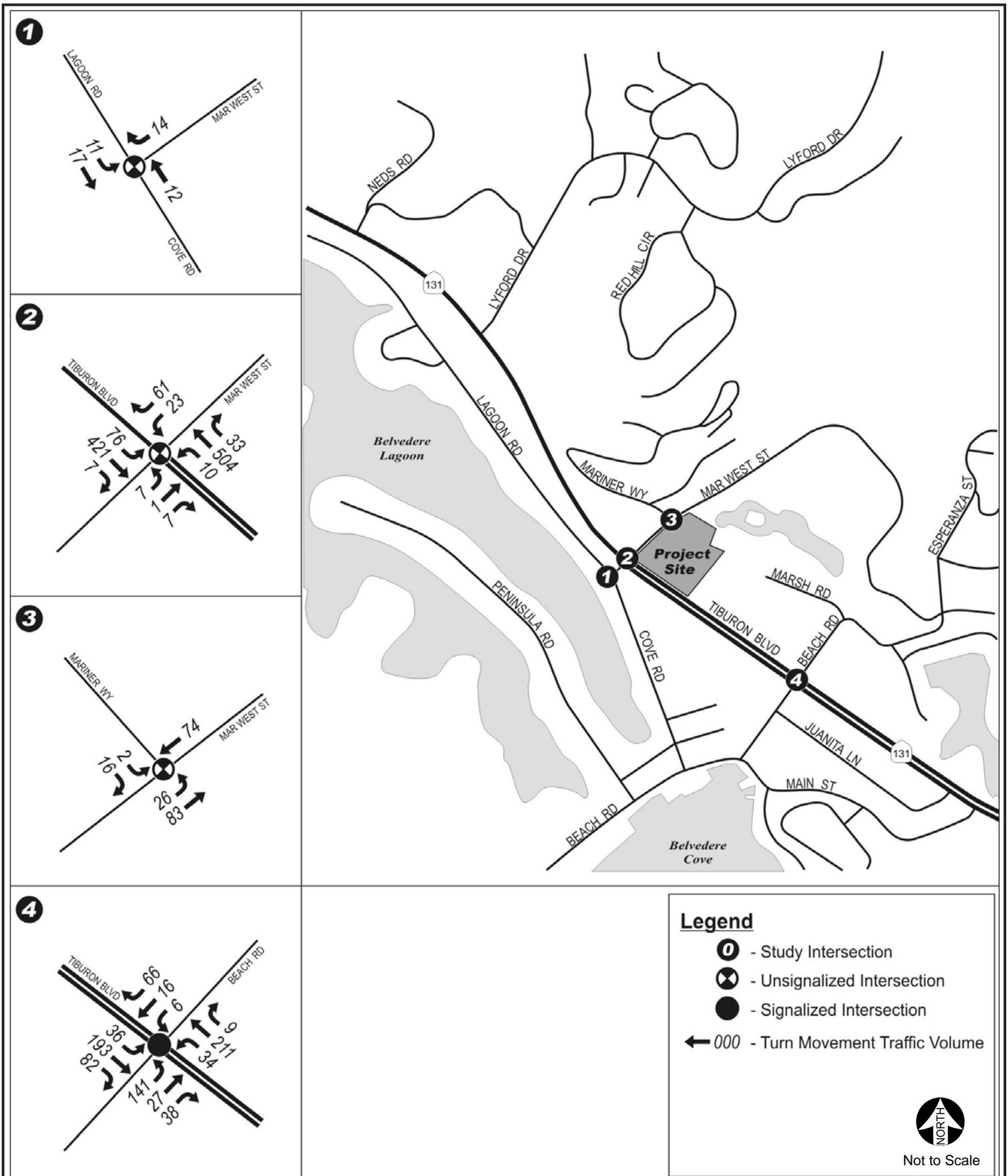
To supplement data collected in the field, Caltrans provided exiting traffic signal timing data for the intersection of Tiburon Boulevard and Beach Road.

Figure IV.H-3 illustrates the intersection geometry and traffic control at each study intersection. Figure IV.H-4 illustrates the existing weekday P.M. intersection traffic volumes at each study intersection.

The intersections and their corresponding existing levels of service are presented in Table IV.H-4 for signalized and unsignalized intersections.



Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.



Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.

**Table IV.H-4
Existing Intersection LOS Summary**

#	Intersection	Traffic Control	P.M. Peak	
			Delay	LOS
1	Mar W St & Lagoon Rd/Cove Rd	Unsignalized	9.2	A
2	Mar W St & Tiburon Blvd	Unsignalized	7.9	B
3	Mar W St & Mariner W	Unsignalized	1.4	A
4	Beach Rd & Tiburon Blvd	Signalized	9.6	A

Source: DKS Associates, 2009.
Notes: Average Delay: in seconds per vehicle LOS: Level of Service
Unsignalized Intersection - A two-way stop controlled intersection, the LOS rating is based on the worst approach.
OVR: Overflow capacity of worst approach exceeded.

Intersection Operations– Existing Conditions

According to the Town of Tiburon intersection level of service standards, all intersections operate at acceptable levels during the P.M. peak hour.

Local Parking Conditions

Currently, there are a total of 54 (51 available to the public) off-street parking spaces provided in the Library/Town Hall complex. Of these 54 spaces, four spaces are designated as accessible parking spaces and three spaces are reserved for Town vehicles only. Parking is limited to 3-hours, with no parking allowed between 2:00 a.m. and 5:00 a.m.

Both the Town and the Library lease staff spaces on a month-to-month basis in the private lot adjacent to Town Hall. As of July 2008,⁷ the Town leases 24-parking spaces, while the Library leases 12-parking spaces for staff.

Existing on-street parking is available in areas surrounding the proposed project area. Along Mar West Street, parking is provided on both sides of the street between Tiburon Boulevard and Mariner Way and is limited to 2-hours between 9:00 a.m. – 6:00 p.m. North of Mariner Way, parking is allowed on the west side of the street only.

Along Tiburon Boulevard, parking is provided along the north side and restricted to 2-hours between the hours of 9:00 a.m. and 6:00 p.m. Along Lagoon Road and Cove Road parking is provided on both sides of the street and is restricted to 2-hours between 8:00 a.m. – 6:00 p.m. every day. City of Belvedere permit holders are exempt from the 2-hour parking limit.

⁷ *Library-Town Hall Parking Facts. July 1, 2008. Provided to DKS by Christopher Joseph & Associates.*

A few of the on-street parking spaces along Mar West Street, Tiburon Boulevard and Cove Road are not generally delineated and parking signage is not consistent. Some of the parking signs have been vandalized and need to be replaced.

Background “Near-Term” Condition

This section discusses the traffic operating conditions at the study intersection under the background condition. The background scenario includes the traffic expected to be generated by approved and planned projects prior to the completion of the proposed project. Identifying the operational conditions under the background scenario allows for a comparative analysis between the proposed project and all prior approved projects. Based on conversation with Town of Tiburon staff, the proportion of these trips that would travel through the study intersections was used for the intersection LOS analysis under the background condition.

For the purpose of this analysis, DKS reviewed the traffic model prepared for the Town of Tiburon General Plan Year 2020 Update.⁸ The traffic model includes the traffic expected to be generated by nearby approved/planned projects in the Town of Tiburon. Table IV.H-5 lists the approved/planned projects and their respective trips that were added to the local street network and study intersections.

Table IV.H-5
Approved/Planned Developments

TAZ	Land Use	Amount	Unit	Rate		Trips		Total
				In	Out	In	Out	
1	Single-Family	3.0	d.u.	0.70	0.44	2	1	3
3	Single	5.0	d.u.	0.70	0.44	4	2	6
9	Single	2.0	d.u.	0.70	0.44	1	1	2
13	Single	5.0	d.u.	0.70	0.44	4	2	6
16	Single	3.0	d.u.	0.70	0.44	2	1	3
17	Single	3.0	d.u.	0.70	0.44	2	1	3
18	Single	5.0	d.u.	0.70	0.44	4	2	6
23	Single	6.0	d.u.	0.70	0.44	4	3	7
26	Single	2.0	d.u.	0.70	0.44	1	1	2
30	Single	12.0	d.u.	0.70	0.44	8	5	14
31	Single	25.0	d.u.	0.70	0.44	18	11	29
Tourism	Tourism	20.0	trips	1.00	1.00	20	20	40
Total						70	51	121

Source: Town of Tiburon. Table 11 – Anticipated Development and Resulting Vehicle Trips.

⁸ Town of Tiburon General Plan Update – TRAFFIX Model. Prepared by Fehr & Peers Associates, Inc.

The approved projects would generate an additional 121 P.M. peak hour trips including 70 inbound and 51 outbound vehicle trips. In addition, vehicles that access the Library via the Tiburon Boulevard entrance were rerouted to the proposed Mar W Street entrance. These trips were rerouted based on the existing travel patterns to the site.

Figure IV.H-5 illustrates the Background Conditions traffic volumes for each study intersection. The intersections and their corresponding existing levels of service are presented in Table IV.H-6 for signalized and unsignalized intersections.

Table IV.H-6
Background Condition – Intersection LOS Summary

#	Intersection	Traffic Control	P.M. Peak	
			Delay	LOS
1	Mar W St & Lagoon Rd/Cove Rd	Unsignalized	9.2	A
2	Mar W St & Tiburon Blvd	Unsignalized	8.6	B
3	Mar W St & Mariner W	Unsignalized	1.4	A
4	Beach Rd & Tiburon Blvd	Signalized	9.4	A

Source: DKS Associates, 2009.
Notes: Average Delay: in seconds per vehicle LOS: Level of Service
Unsignalized Intersection - A two-way stop controlled intersection, the LOS rating is based on the worst approach.
OVR: Overflow capacity of worst approach exceeded.

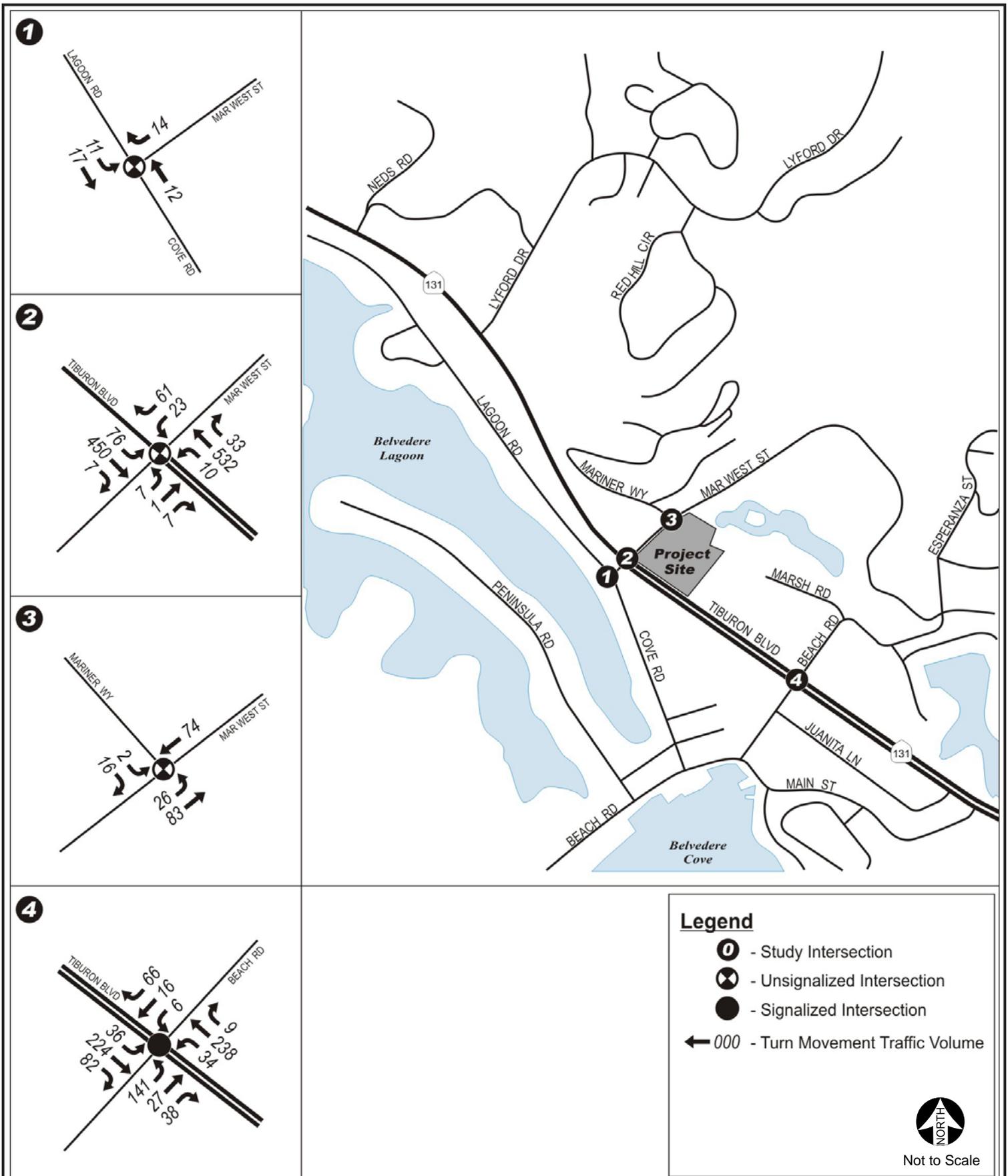
Background Condition Intersection Operations

According to the Town of Tiburon intersection level of service standards, all intersections would continue to operate at acceptable levels during the P.M. peak hour.

REGULATORY SETTING

Federal and State

Currently no federal and state plans, policies and/or regulations related to transportation exist. Therefore, in addition to the thresholds of significance outlined in Appendix G of the State CEQA Guidelines, the regional and local policies and guidelines associated with circulation and transportation as defined by the Town will be utilized for this analysis.



Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.

Regional and Local

Town of Tiburon General Plan (Tiburon 2020)

Section 65302 of the California Government Code requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(b) requiring a circulation element to be included in the general plan. The circulation element must consist of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan. Pursuant to Section 65302(b) of the California Government Code, the Circulation Element of the Town of Tiburon General Plan (Tiburon 2020) sets forth policy guidelines for decision making on issues related to development in the Town of Tiburon. The Town of Tiburon Traffic Mitigation Fee Program⁹ (TMF) estimates the fair share contributions for new developments based on PM peak hour trips. Fees collected from the TMF Program are distributed into the Tiburon Circulation System Improvement Fund (CSIF) for improvements within the Town of Tiburon's corporate limits and the Tiburon Planning Area Mitigation Fund (PAMF) for improvements located outside of the Town of Tiburon's corporate limits, but within the Tiburon Planning Area. Based on the TMF Program¹⁰, the proposed project fee per PM Peak Hour Trip is \$4,915 for CSIF and \$361 for PAMF, for a total TMF of \$5,276 dollars. However, the Town's program exempts "municipal and other governmental uses" from the mitigation fees.

Intersections

The Town of Tiburon General Plan identifies an acceptable peak-hour intersection operating level of service (LOS) as LOS C or better at all signalized intersections within the Tiburon Planning Area. A LOS D is the standard for Tiburon Boulevard intersections near U.S. Highway 101 (see GP Diagram 5.5.-1) during the P.M. peak hours.

Marin Congestion Management Program

The CMP is a short-range document containing elements which further the goals of the Regional Transportation Plan maintained by the MTC.

⁹ *Town of Tiburon Traffic Mitigation Fee Program Update. November 2006. Prepared for the Town of Tiburon by Fehr & Peers Transportation Consultants.*

http://www.ci.tiburon.ca.us/government/guidelines%20&%20ordinances/guidelines%20&%20handbooks/Tiburon_Fee_Report_Revised.pdf

¹⁰ *Town of Tiburon Traffic Mitigation Fee Program Update. Table 11 – Fee Amount for Each PM Peak Hour Trip, by TAZ (TAZ 6).*

TAM Facilities

According to the CMP, the performance standard of an urban and suburban arterial including highways that serve as arterial roadways (State Route 131) should operate at LOS D or better. LOS E is the standard for Highway 101.

The designated CMP system within the study area includes:

- State Route 131 (SR 131) – Tiburon Boulevard: from U.S. 101 to Main Street

ENVIRONMENTAL IMPACTS

This section evaluates project buildout conditions. The amount of traffic associated with a project is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. Trip generation is the process of predicting the number of peak hour trips a proposed development would contribute to the roadways, and whether these trips would be entering or exiting the site. After the number of trips is determined, the distribution process projects the direction these trips use to approach and depart the site, from a regional perspective. Trip assignment involves determining which specific roadways a vehicle would use to travel between its origin and destination.

The Town Hall Building Department is open from 7:00 a.m. – 5:00 p.m., all other departments are open between 8:30 a.m. and 5:30 p.m.; the Library is not open during A.M. peak hours. This section analyzes the traffic conditions during the weekday P.M. peak hours. The impacts of the proposed project were estimated using the current level of service methodologies set for the by the Town of Tiburon and the Transportation Authority of Marin’s CMP.

According to the Town of Tiburon, the proposed project would have a significant effect on the environment if it would:

- Conflict with the Town of Tiburon Level of Service standards for signalized intersections or unsignalized intersections.
 - Cause the operation of a signalized intersection to degrade from an acceptable LOS C or better during the peak hour(s) to an unacceptable level of service and have an increase in average vehicle control delay of five seconds or more.
 - Cause the operation of a signalized intersection that already operates an unacceptable level of LOS D or below during the peak hour(s) to further degrade the LOS by increasing the average vehicle control delay by five seconds or more.
 - For unsignalized intersections, a project impact would result if the additional project traffic will result in an increase in delay of five seconds or more and result in the Caltrans peak hour signal warrant being met. For all way stop-controlled intersections, delay is

based on the average control delay. For side-street stop-controlled intersections, delay is based on the worst minor approach delay.

- For regional roadways (Tiburon Boulevard), a project impact would result if the additional project traffic would deteriorate the LOS from LOS D to E during the P.M. peak hour period.
- Result in project traffic or roadway design results in a substantial increase in unsafe circulation conditions.
- Result in conflicts with adopted policies and plans supporting alternative transportation.
- Result in inadequate emergency access.
- Result in inadequate parking capacity.

Project Impacts and Mitigation Measures

Impact TRANS-1: Implementation of the proposed project would not conflict with the Town of Tiburon Level of Service standards for signalized intersections or unsignalized intersections. (LTS)

This analysis addresses whether the project would cause the operation of a signalized intersection to degrade from an acceptable LOS C or better during the peak hour(s) to an unacceptable level of service and have an increase in average vehicle control delay of five seconds or more, or result in the operation of a signalized intersection that already operates an unacceptable level of LOS D or below during the peak hour(s) to further degrade the LOS by increasing the average vehicle control delay by five seconds or more. This analysis also addresses whether the project would increase delay five seconds or more at unsignalized intersections or result in the Caltrans peak hour signal warrant being met.

Trip Generation

The trip generation of the proposed project was based on the Institute of Transportation Engineers Trip Generation Manual, 7th Edition (2003), as summarized in Table IV.H-7, for the P.M. peak hour. The proposed project would generate 1,012 daily trips, 131 weekday P.M peak hour trips (63 in, 68 out).

**Table IV.H-7
Weekday Trip Generation**

Land Use	Size	Units	Daily Rate	Daily Average Vehicle Trips Ends	P.M. Rate	P.M. Peak				
						Avg. Vehicle Trip Ends	Percent		Vehicle Trips	
							In	Out	In	Out
Existing Library¹	10,500	1,000 sq.ft	56.24	591	7.30	77	48%	52%	37	40
Proposed Library²	28,500	1,000 sq.ft	56.24	1,603	7.30	208	48%	52%	100	108
Total Trips				1,012		131			63	68

Source: Institute of Transportation Engineers – Trip Generation Manual, 8th Edition.
Notes: numbers have been rounded up to nearest whole number
^{1,2} *Library – Land Use Code (590) - Peak Hour of Adjacent Street Traffic – Average Rate.*

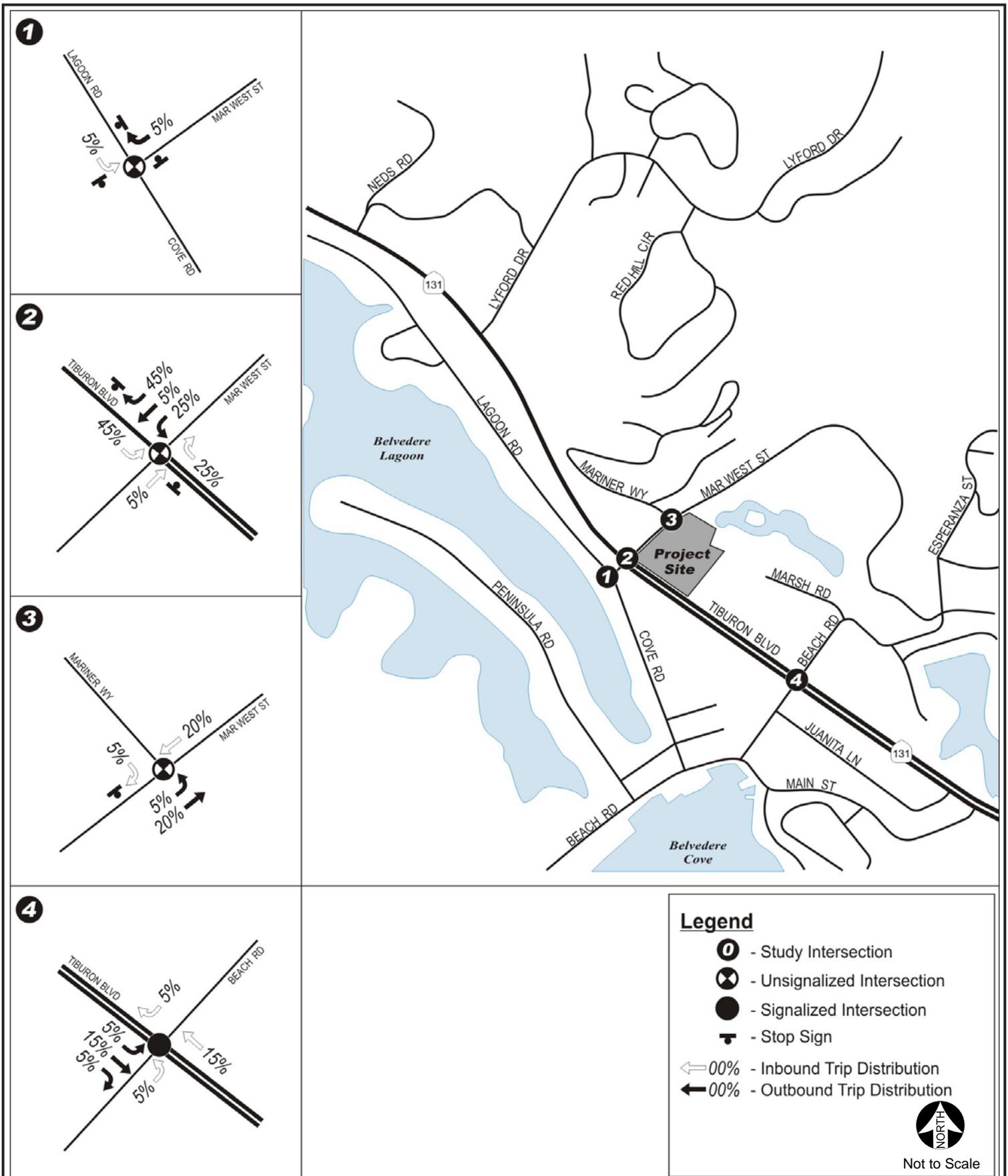
Trip Distribution and Trip Assignment

The direction of approach and departure for project trips of the proposed project vary based on the type of land use. DKS reviewed traffic volumes, turning movements at intersections, and locations of various land uses as part of this analysis. Trip distribution patterns were derived in consultation with Town of Tiburon staff. It is anticipated that these types of trips would serve a more localized area. Thus, projection of likely travel patterns for project-generated trips and the locations of complementary land uses are more concentrated. The trip distribution patterns for the proposed project are illustrated in Figure IV.H-6.

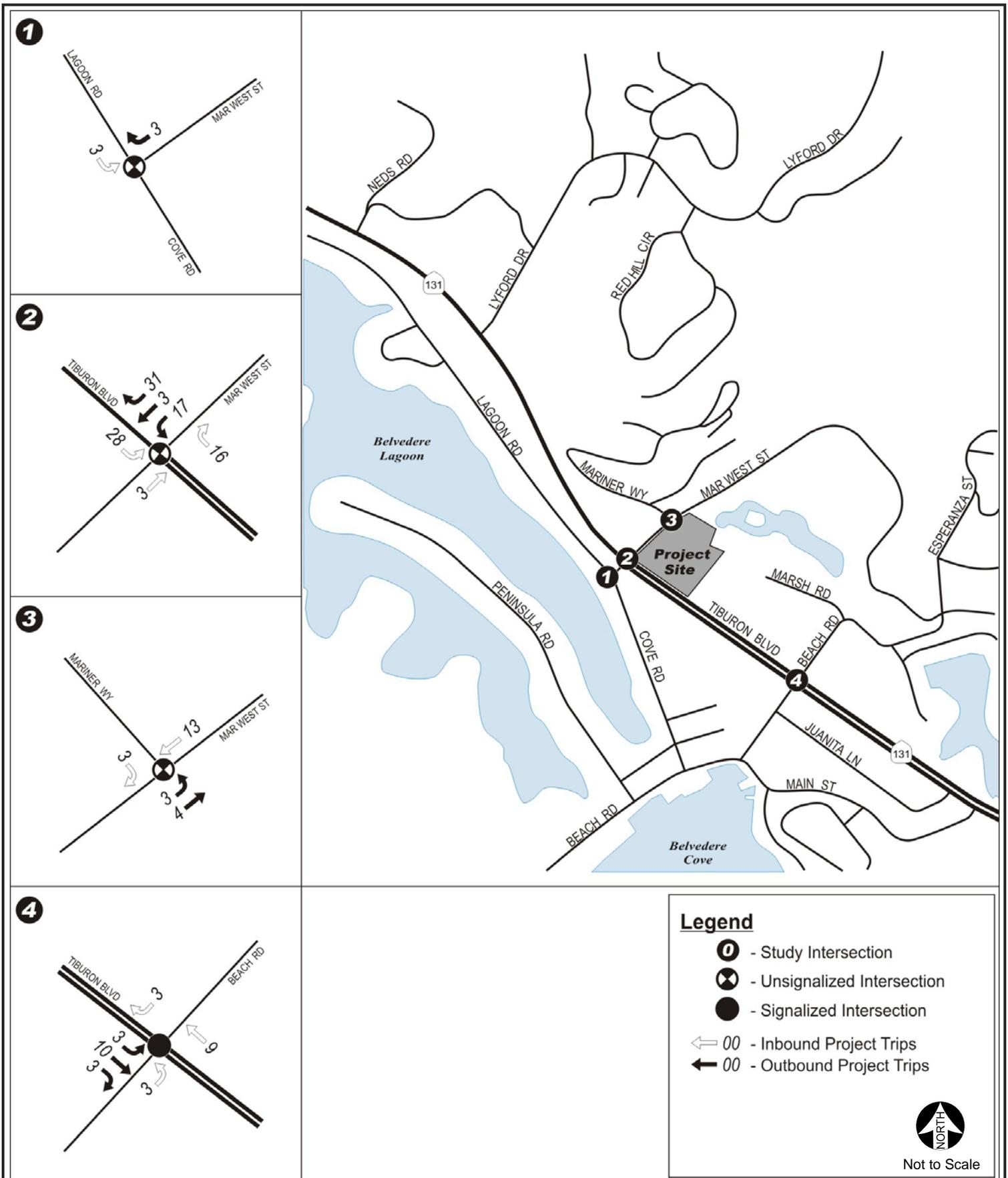
Trip Assignment

Project-generated trips were assigned to the roadway network based on access points, trip distribution assumptions and likely travel patterns. The proportion of these trips that would travel through the study intersections was used for the intersection LOS analysis under the project condition. Figure IV.H-7 illustrates the trip assignment for the proposed project. Figure IV.H-8 illustrates the project condition peak hour turning movement volumes at each of the study intersections for P.M. peak hour.

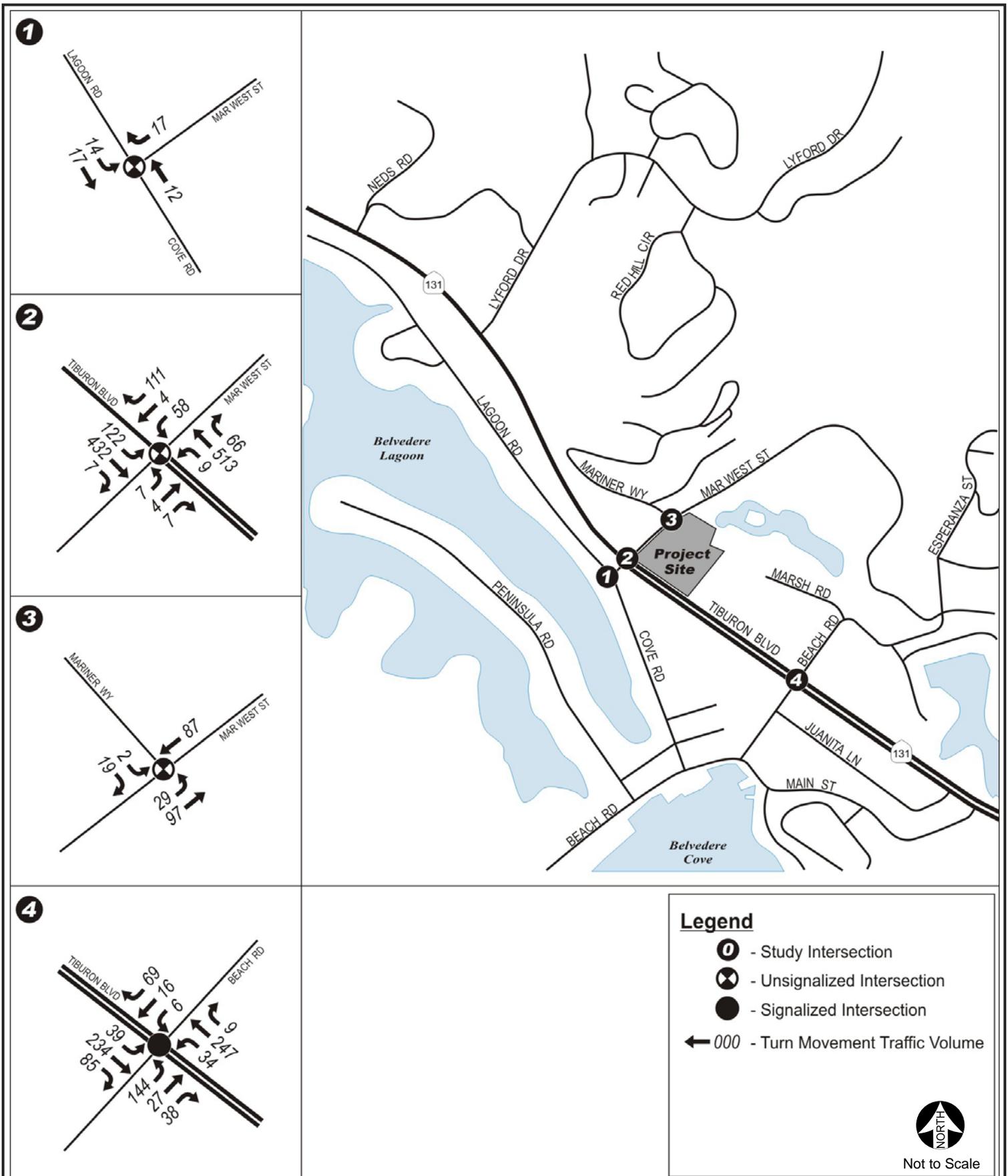
The intersections and their corresponding project levels of service are presented in Table IV.H-8 for signalized and unsignalized intersections. Appendix E includes the detailed calculation level of service analysis sheets for signalized and unsignalized intersections, including the weekday P.M. peak hours.



Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.



Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.



Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.

**Table IV.H-8
Project Buildout Intersection LOS Summary**

#	Intersection	Traffic Control	P.M. Peak	
			Delay	LOS
1	Mar W St & Lagoon Rd/Cove Rd	Unsignalized	9.2	A
2	Mar W St & Tiburon Blvd	Unsignalized	14.9	C
3	Mar W St & Mariner W	Unsignalized	1.5	A
4	Beach Rd & Tiburon Blvd	Signalized	9.4	A

Source: DKS Associates, 2009.
Notes: Average Delay: in seconds per vehicle LOS: Level of Service
Unsignalized Intersection - A two-way stop controlled intersection, the LOS rating is based on the worst approach.

Intersection Operations

According to the Town of Tiburon intersection level of service standards, all study intersections would continue to operate at acceptable levels of service under the project buildout conditions. Therefore, this impact would be *less than significant* and no mitigation measures are required.

Impact TRANS-2: Implementation of the proposed project would not result in impacts to a regional roadways (Tiburon Boulevard) through the additional of project traffic that would deteriorate the LOS from LOS D to E during the P.M. peak hour period. (LTS)

The Transportation Authority of Marin County (TAM) requires the evaluation and assessment of regional roadways within the study area that are designated as CMP facilities. CMP facilities are used to monitor conformance with the LOS Standards of the TAM.

The designated CMP¹¹ system within the study plan areas includes:

- State Route 131 (SR 131) – Tiburon Boulevard: from U.S. 101 to Main Street

The TAM conducts periodic monitoring of the freeways and major roadways in Marin County. Its latest report was released in January 2007. The monitoring assesses existing operating conditions on freeway segments through “floating car” travel time surveys during the PM peak hours, rather than analyzing volume capacity, which is how future operation conditions are assessed. The travel time surveys are also conducted on selected freeway segments during the AM peak hours. Based on the results of these surveys, TAM assigns a LOS grade from LOS A to LOS F, according to the methodologies set forth in the 1985

¹¹ Marin County Congestion Management Program. 2009 Report Update.
<http://www.tam.ca.gov/Modules/ShowDocument.aspx?documentid=2650>.

Highway Capacity Manual (HCM). Any segment with an average speed less than 30 miles per hour is assigned LOS F.

The 2007 Marin County CMP Monitoring Study¹² does not include monitoring results for roadways near the project site. However, the roadway segment along State Route 131 between Redwood Frontage and Strawberry is included. This segment is located to the west of the proposed project and has an operating LOS of A in both directions.

For the purposes of the TAM analysis, operations of the roadway segment were evaluated using a volume-to-capacity (v/c) ratio methodology using volumes from the Caltrans15 database. A per-lane capacity of 800 vehicles per hour was assumed. Roadway segments with a v/c ratio greater than 1.00 signify a LOS F.

Near the project site, Tiburon Boulevard¹³ carries an average of 13,400 vehicles per day east of San Rafael Avenue including 1,300 during the peak hour. Near Main Street, Tiburon Boulevard carries an average of 6,100 vehicles per day, including 580 during the peak hour, see Table IV.H-9 below.

Table IV.H-9
TAM LOS Analysis – Arterial Segment

Roadway	Roadway Segment	Existing			Project			Significant Impact?	
		Peak Hour Volume ¹	V/C	LOS	Project Trips	Total Peak Hour Volume	V/C		LOS
Tiburon Blvd	West of Mar West	1,300	0.81	C	59	1,359	0.85	C	No
	East of Mar West	580	0.36	A	33	613	0.38	A	No

Source: DKS Associates, 2009.
Notes: <http://traffic-counts.dot.ca.gov/2008all/r118133i.htm>

Project Buildout Condition

Based on the roadway segment analysis results, the addition of the proposed buildout traffic would not result in significant impacts at the studied roadway segment. Thus, transportation impacts associated with designated CMP facilities would be *less than significant*.

¹² Marin County CMP Transportation System Performance Monitoring Report -2001. Prepared for the Transportation Authority of Marin. January 2007. Prepared by PHA Transportation Consultants.

¹³ <http://traffic-counts.dot.ca.gov/2008all/r101i.htm>

Impact TRANS-3: Implementation of the proposed project would not result in project traffic or roadway design resulting in a substantial increase in unsafe circulation conditions. (LTS)

Pedestrian Safety & Circulation

Crosswalks and other pedestrian safety amenities would continue to provide pedestrian safety measures in the project study area.

Also, the additional pedestrian movements generated by the proposed project would continue to be accommodated by sidewalks provided along the project frontage and within the project site vicinity.

Signalized study intersections are equipped with pedestrian crossing signals, push buttons, and crosswalks to accommodate pedestrian movements in the vicinity of the project. Based on the presence and current condition of sidewalks, pedestrian amenities and crosswalks, the relatively low number of project-generated additional pedestrians spread throughout the day, and the planned pedestrian facilities improvements in the study area, no adverse pedestrian impacts are anticipated. Therefore, the expected increase in vehicular traffic volumes at the study intersections would not significantly impact the pedestrian movements. Therefore, this impact would be ***less than significant*** and no mitigation measures are required.

Site Access and Internal Circulation

Project access and circulation were analyzed for the proposed project based on the existing and proposed site configuration and access roadways. Vehicular access to the project site would be relocated from Tiburon Boulevard to Mar West Street via two driveways. The northern driveway would provide full-access for inbound vehicles only. The southern driveway would facilitate full-access for outbound vehicles. Pedestrian access would remain from Tiburon Boulevard. Both entries would be ADA compliant. Therefore, this impact would be ***less than significant*** and no mitigation measures are required.

Impact TRANS-4: Implementation of the proposed project would not conflict with adopted policies and plans supporting alternative transportation. (LTS)

Per the current transit operating routes in the vicinity of the project site, only a few Golden Gate transit routes operate near the project site (Route 8 and 19). In general, the routes provide access between Town of Tiburon, Marin City and San Francisco. These bus routes would mostly be used as single or connecting routes to the other Golden Gate Transit routes in the project study area.

The anticipated mode share of transit patrons from the project site is anticipated to be minimal (less than two percent mode share). By assuming a mode share of five percent, approximately 3 or less P.M. peak hour transit trips would be made in any direction. It is estimated that these additional patrons could be accommodated by the existing service, spread out over the various routes and frequency of service. Therefore, this impact would be ***less than significant*** and no mitigation measures are required.

Impact TRANS-5: Implementation of the proposed project would not result in inadequate emergency access. (NI)

Project access and circulation were analyzed for the proposed project based on the existing and proposed site configuration and access roadways. Vehicular access to the project site would be relocated from Tiburon Boulevard to Mar West Street via two driveways. The northern driveway would provide full-access for inbound vehicles only. The southern driveway would facilitate full-access for outbound vehicles.

During special events, traffic arriving or departing to/from the parking lot can potentially experience more delay than on non-special event days. It is also likely that occasional spillback queuing would occur along Mar West Street and within the parking lot. Heavier queuing is anticipated for the westbound (existing) approach towards Mar West Street as well as northbound and southbound on Mar West Street.

Pedestrian access would remain from Tiburon Boulevard. Both entries would be ADA compliant. Therefore, emergency access would be adequate and there would ***be no impact***.

Impact TRANS-6: Implementation of the proposed project would result in inadequate parking capacity. (SU)

Parking Analysis

The Library expansion would be constructed as an addition to the Library and it would occupy a portion of the existing parking lot that currently serves the Town Hall and Library. The existing parking area between the Library and Town Hall would be relocated to the north and behind the existing Library and proposed addition. The existing parking area behind Town Hall would be converted to the relocated Zelinsky Park area.

The parking analysis consisted of an evaluation of the proposed parking supply and comparison to the requirements of the Town of Tiburon and the parking demand rates published in the Institute of Transportation Engineers (ITE) – Parking Generation 3rd Edition. The analysis takes into account shared parking relationships between the Belvedere-Tiburon Library and the Town Hall.

Based on the proposed site plan, the proposed project would provide 52 on-site parking spaces, including four accessible spaces. Table IV.H-10 summarizes the Town's parking standards requirement and the parking spaces proposed as part of the library expansion project.

**Table IV.H-10
Parking Analysis Summary – Town of Tiburon**

Land Use	Size	Parking Required		Parking Spaces Provided ⁴	Surplus/ Shortfall
		Parking Standard	No. of Spaces		
Existing Library	10,500 sq. ft	1-parking stall for each 500 square feet of GLA ¹	21	35	+14
Existing Town Hall Complex	7,500 sq. ft	1-parking stall for each 300 square feet of net floor area ² .	25	19	-6
Existing Library/Town Hall Accessible Parking Spaces			2	4	+2
Subtotal Existing Library/Town Hall Complex			48	54	+6
Parking for Proposed Library Expansion Project/Town Hall	28,500 sq. ft (Library)	1-parking stall for each 500 square feet of GLA	57	48	-34
	7,500 sq. ft (Town Hall Complex)	1-parking stall for each 300 square feet of net floor area.	25		
		Accessible Parking Spaces	2	4	+2
Total Proposed	36,000 sq. ft		84	52	-32
<p>Source: ¹Town of Tiburon Municipal Code. Notes: sq. ft: square feet; GFA: gross-floor area.</p> <p>¹ Town of Tiburon Municipal Code – Title IV Chapter 16, Zoning Ordinance – 16.32 Parking Loading Standards- Library Use. ² Town of Tiburon Municipal Code – Title IV Chapter 16, Zoning Ordinance – 16.32 Parking Loading Standards- Library Use. ³ Per 2009 California Access Compliance Reference Manual. 2007 California Building Standards Code with California Errata and Amendments. Updated April 27, 2010. http://www.documents.dgs.ca.gov/dsa/pubs/access_manual_rev_04-27-10.pdf ⁴ The Town Hall and Library parcels have a reciprocal access and parking easement and share the total available parking.</p>					

Based on the proposed site plan, the proposed project would provide 52 on-site parking spaces, four of which would be accessible parking spaces. With the provision of 52 parking spaces, the proposed project would not satisfy the Town's Parking Space Standards, which requires a total of 82 spaces. The proposed project would meet the minimum California Building Standard Code for Accessible Parking Spaces requirement of 2 spaces. This estimate takes into account the shared-use that would have to be provided for use of both Town Hall and Library patrons.

On-street parking is available along Tiburon Boulevard and Mar West Street. Paid parking is available next to the Town Hall for \$4 all-day.

Table IV.H-11 summarizes ITE's parking demand analysis and the parking spaces provided for the proposed project. This is for comparison purposes only as ITE Parking Demand Rates generally assume suburban sites without consideration for shared parking, mixed-use developments, and the effects of bicyclist, transit and pedestrians. As in this case, the average peak parking demand rate for the Library is based on suburban sites with an average square footage of 34,000 square feet of gross-floor area with the peak period demand between 3:00 and 4:00 p.m. The average peak parking demand rate for the Town Hall Complex (Government Office Building) is based on an average of 50,000 square feet of gross-floor area with the peak period demand between 9:00 a.m. and 12:00 noon.

**Table IV.H-11
Parking Analysis Summary – ITE Parking Generation**

Land Use	Size	Parking Estimate		Parking Spaces Provided	Surplus/ Shortfall
		Parking Standard	No. of Spaces		
Existing Library	10,500 sq. ft	2.61 vehicles per 1,000 sq. ft of GFA ¹ .	27	35	+8
Existing Town Hall Complex	7,500 sq. ft.	4.15 vehicles per 1,000 sq. feet of GFA ¹	31	19	-12
Subtotal (Library and Town Hall Complex)			58	54	-4
Proposed Expansion	28,500 sq. ft	2.61 vehicles per 1,000 sq. ft of GFA ² .	74	52	-53
Existing Town Hall Complex	7,500 sq. ft.	4.15 vehicles per 1,000 sq. feet of GFA ¹	31		
Total	36,000 sq. ft		105	52	-53

*Notes: sq. ft: square feet; GFA: gross-floor area.
Source: ¹Institute of Transportation Engineers. Parking Generation 3rd Edition. Land Use: 590 – Library and 730 – Government Office Building.*

Parking Inventory and Occupancy Surveys

The purpose of the parking inventory and occupancy surveys is to assess the existing parking utilization levels and parking use patterns and verified parking inventory, parking locations, parking restrictions and parking signage locations within the parking facilities. The survey was conducted at the three facilities currently providing parking for the Town Hall/Library. Figure IV.H-9 illustrates the parking locations surveyed and their inventory.



Parking Facility	No. of Spaces	ADA/other	Total	Notes:
1 - Library & Town Hall	27*	4 ada	31	3-hour time limit, includes 2-ADA van accessible parking spaces.
2 - Town Hall	15*	3 - reserved	18	Includes 3-spaces reserved for city vehicles
3 - Paid lot	76*	4 - ada	80	\$4 all-day, includes 1-ADA van accessible parking space.
Total	118	11	129	

Notes: * Vehicles were observed parked in areas designated as "No-Parking".



Not to Scale

Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.



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Figure IV.H-9
Parking Facilities Surveyed

Parking Inventory

Based on the parking inventory survey, there are approximately 130 parking spaces provided within the three lots surveyed, which includes parking spaces designated for library visitors, staff, ADA and paid-parking. Of the identified spaces, some of the spaces are restricted to city vehicles. Parking in Lot 1 and 2 is provided for up to a three-hour limit for Library and Town Hall visitors. Lot 3 is a privately owned lot that provides all-day parking for \$4.

Based on field observations, there are a few locations within Lots 1 and 2 in which vehicles were observed parked in “No-Parking Areas” and along red-curb areas. These vehicles were accounted for as part of the parking occupancy surveys; thus, the available spaces observed by the survey crew, is higher than the actual parking spaces available.

Parking Occupancy Analysis

In order to address the periods of particular concern that have been identified, parking occupancy surveys were conducted in the month of March 2009 and data were obtained in 30-minute intervals. The surveys were conducted during one weekday (Tuesday) between 10:00 a.m. – 4:00 p.m. Table IV.H-12 summarizes the overall parking demand for the weekday study period.

**Table IV.H-12
Parking Demand Results**

Space Type	Lot 1		Lot 2		Lot 3		Total
	Unrestricted	ADA	Unrestricted	Reserved For City Vehicles	\$4 All Day Parking	ADA	
Actual Spaces	31	4	16	3	76	4	134
Available spaces	31*	4	16*	3	78*	4	136
10:00	13	2	2	1	28	0	46
10:30	20	1	2	0	31	0	54
11:00	28	0	4	1	32	0	65
11:30	27	0	11	2	34	0	74
12:00	19	1	10	2	29	0	61
12:30	27	1	7	2	28	0	65
1:00	27	2	15	2	30	0	76
1:30	26	3	15	3	34	0	81

**Table IV.H-12
Parking Demand Results**

Space Type	Lot 1		Lot 2		Lot 3		Total
	Unrestricted	ADA	Unrestricted	Reserved For City Vehicles	\$4 All Day Parking	ADA	
2:00	30	1	16	2	33	0	82
2:30	28	1	12	2	34	0	77
3:00	28	1	15	2	32	0	78
3:30	24	0	5	2	31	0	62
4:00	27	2	4	2	28	0	63
4:30	27	0	13	3	25	0	68
5:00	17	0	6	3	27	0	53
5:30	14	0	6	3	14	0	37
6:00	18	0	2	3	11	0	34

** vehicles were observed parked in areas designated as "No Parking"; thus, the number of available spaces observed is higher than the actual number of parking spaces provided.*

The parking occupancy analysis results indicate a constant utilization of parking within Lots 1 and 2, with parking occupancy often exceeding the 85 percent threshold. When parking occupancy exceeds 85 percent in a given area, users may have a difficult time finding an available parking space. The 85 percent benchmark is common for parking occupancy and is referred to as “practical capacity”.

Parking Lot 3, however, experiences a peak parking occupancy of 43 percent and occurs at 11:30 a.m., 1:30 p.m. and 2:30 p.m.

The proposed project would result in approximately 51 publicly-available existing parking spaces being eliminated. The proposed new parking area would include 52 total parking spaces. Based on the proposed parking supply and the projected parking demand, it is anticipated that the parking needs of the project would not be accommodated on-site. Although it is possible that transportation demand measures such as incentives for public transit or carpooling would reduce the demand for public parking, it is not anticipated that these measures would be effective enough to reduce the demand for parking spaces to be equal to the number of spaces provided. The Library or Town could possibly lease parking spaces in the adjacent lot to help increase parking supply. However, as the leasing of parking spaces would be dependent on the availability of secured leases and the continuation of parking as a use on the site (which is privately owned and therefore out of control of the Library or Town’s jurisdiction), this action could

not be relied upon as a feasible mitigation measure to eliminate this impact. Therefore, due to the fact that there are no mitigation measures that could be relied upon to reduce this impact effectively, this impact would be *significant and unavoidable*.

CUMULATIVE IMPACTS

Impact TRANS-7: Implementation of the proposed project would not conflict with the Town of Tiburon Level of Service standards for signalized intersections or unsignalized intersections for cumulative traffic conditions. (LTS)

This analysis addresses whether the project would cause the operation of a signalized intersection to degrade from an acceptable LOS C or better during the peak hour(s) to an unacceptable level of service and have an increase in average vehicle control delay of five seconds or more, or result in the operation of a signalized intersection that already operates an unacceptable level of LOS D or below during the peak hour(s) to further degrade the LOS by increasing the average vehicle control delay by five seconds or more. This analysis also addresses whether the project would increase delay five seconds or more at unsignalized intersections or result in the Caltrans peak hour signal warrant being met.

Cumulative “No Project” Conditions

Identifying the operational conditions under the cumulative “no project” scenario allows for a comparative analysis between the proposed project and all prior pending/planned projects.

To evaluate the cumulative no project scenario, DKS reviewed the traffic model prepared for the Town of Tiburon General Plan Year 2020 Update. The traffic model includes the traffic growth projections expected by pending/planned projects in the Town of Tiburon. These projections were assumed to take into account buildout of the Town of Tiburon General Plan, its vicinity and correspond to year 2020. Based on conversation with Town of Tiburon staff, the proportion of these trips that would travel through the study intersections was used for the intersection LOS analysis under the background condition.

Table IV.H-13 lists the pending/planned projects and their respective trips that were added to the local street network and study intersections. The pending projects would generate an additional 493 P.M. peak hour trips including 280 inbound and 213 outbound vehicle trips.

Figure IV.H-10 illustrates weekday P.M. intersection turning movement volumes for the Cumulative “No Project” Condition. The intersections and their corresponding existing levels of service are presented in Table IV.H-14.

**Table IV.H-13
Pending/Planned Projects**

TAZ	Land Use	Amount	Unit	Rate		Trips		Total
				In	Out	In	Out	
1	Single-Family	13.0	d.u.	0.70	0.44	9	6	15
3	Single-Family	28.0	d.u.	0.70	0.44	20	12	32
4	Retail	3.9	1,000 sq. ft	1.80	1.80	7	7	14
4	Office	1.3	1	0.25	1.24	0	2	2
4	Single-Family	1.0	d.u.	0.70	0.44	1	0	1
5	Multi-Family	10.0	d.u.	0.46	0.25	5	3	7
5	Retail	9.0	1,000 sq.ft.	1.80	1.80	16	16	32
5	Office	5.9	1,000 sq.ft.	0.25	1.24	1	7	9
6	Multi-Family	57.0	d.u.	0.46	0.25	26	14	40
6	Retail	6.5	1,000 sq.ft.	1.80	1.80	12	12	23
6	Office	3.0	1,000 sq.ft.	0.25	1.24	1	4	4
9	Single-Family	11.0	d.u.	0.70	0.44	8	5	13
11	Single-Family	16.0	d.u.	0.70	0.44	11	7	18
12	Single-Family	2.0	d.u.	0.70	0.44	1	1	2
13	Single-Family	10.0	d.u.	0.70	0.44	7	4	11
13	Second Unit	2.0	d.u.	0.15	0.12	0	0	1
13	Multi-Family	18.0	d.u.	0.46	0.25	8	5	13
16	Single-Family	13.0	d.u.	0.70	0.44	9	6	15
17	Single-Family	12.0	d.u.	0.70	0.44	8	5	14
17	Second Unit	2.0	d.u.	0.15	0.12	0	0	1
18	Single-Family	8.0	d.u.	0.70	0.44	6	4	9
18	Second Unit	2.0	d.u.	0.15	0.12	0	0	1
23	Single-Family	9.0	d.u.	0.70	0.44	6	4	10
26	Single-Family	13.0	d.u.	0.70	0.44	9	6	15
26	Second Unit	2.0	d.u.	0.15	0.12	0	0	1
27	Single-Family	6.0	d.u.	0.70	0.44	4	3	7
27	Retail	2.3	1,000 sq.ft.	1.80	1.80	4	4	8
27	Office	2.0	1,000 sq.ft.	0.25	1.24	1	2	3
28	Single-Family	3.0	d.u.	0.70	0.44	2	1	3
28	Second Unit	2.0	d.u.	0.15	0.12	0	0	1
28	Retail	1.6	1,000 sq.ft.	1.80	1.80	3	3	6
30	Single-Family	35.0	d.u.	0.70	0.44	25	15	40
31	Single-Family	55.0	d.u.	0.70	0.44	39	24	63
Tourism	Tourism	30.0	trips	1.00	1.00	30	30	60
Total						280	213	493

Source: Town of Tiburon. Table 11 – Anticipated Development and Resulting Vehicle Trips.

**Table IV.H-14
Cumulative “No Project” Condition – Intersection LOS Summary**

#	Intersection	Traffic Control	P.M. Peak	
			Delay	LOS
1	Mar W St & Lagoon Rd/Cove Rd	Unsignalized	9.2	A
2	Mar W St & Tiburon Blvd	Unsignalized	16.1	C
3	Mar W St & Mariner W	Unsignalized	1.5	A
4	Beach Rd & Tiburon Blvd	Signalized	9.3	A

Source: DKS Associates, 2009.
Notes: Average Delay: in seconds per vehicle LOS: Level of Service
Unsignalized Intersection - A two-way stop controlled intersection, the LOS rating is based on the worst approach.

Intersection Operations

According to the Town of Tiburon intersection level of service standards, all intersections would operate at acceptable levels during the P.M. peak hour.

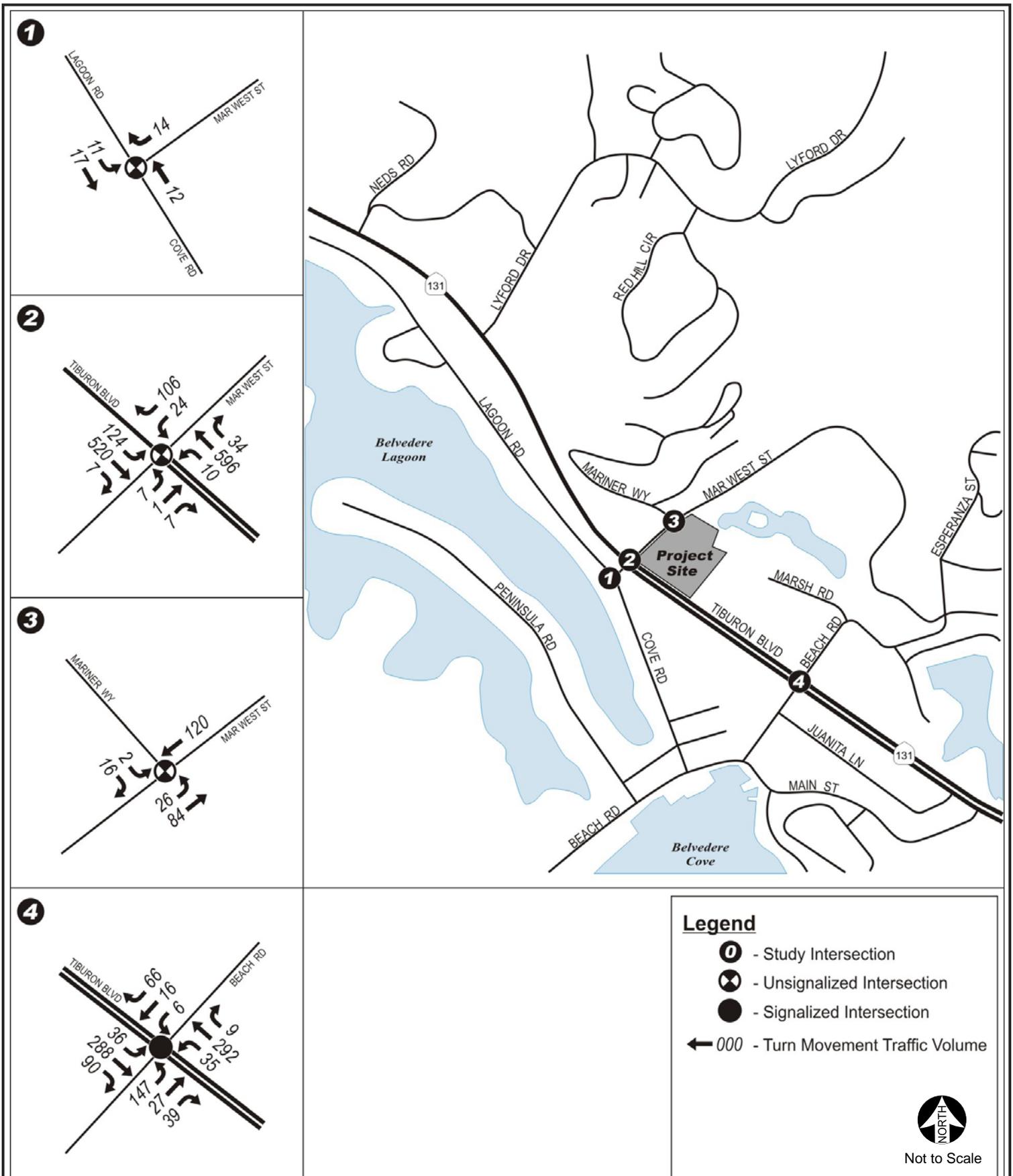
Year 2020 Cumulative Project Condition

As part of this study, DKS also evaluated whether the project would result in significant cumulative impacts at the study intersections. Trips associated with the project were added to the cumulative no project scenario and the resulting intersection turning movement volumes for the cumulative with project scenario are shown in Figure IV.H-11. The intersections and their corresponding levels of service are presented in Table IV.H-15.

**Table IV.H-15
Cumulative With Project Condition – Intersection LOS Summary**

#	Intersection	Traffic Control	P.M. Peak	
			Delay	LOS
1	Mar W St & Lagoon Rd/Cove Rd	Unsignalized	9.2	A
2	Mar W St & Tiburon Blvd	Unsignalized	28.8	D
3	Mar W St & Mariner W	Unsignalized	1.6	A
4	Beach Rd & Tiburon Blvd	Signalized	9.3	A

Source: DKS Associates, 2009.
Notes: Average Delay: in seconds per vehicle LOS: Level of Service
Unsignalized Intersection - A two-way stop controlled intersection, the LOS rating is based on the worst approach.



Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.

Intersection Operations

According to the Town of Tiburon intersection level of service standards, all intersections would operate at acceptable levels during the P.M. peak hour. Thus, cumulative transportation impacts associated with intersection level of service standards would be *less than significant*.

Impact TRANS-8: Signal Warrant Analysis (LTS/M)

Peak hour traffic signal warrants were tested for the unsignalized study intersections that are projected to operate below the LOS standard. This was done in accordance to the methodology of the MUTCD, California Supplement.

Mar West Street & Tiburon Boulevard

The minimum threshold volume for the minor street approach (Mar West Street) with one lane is 100 vehicles per hour (VPH) and that relates to 1,500 vehicles per hour for the total of both approaches for a major street (Tiburon Boulevard) with two or more lanes.

Under the cumulative with project condition, the P.M. peak hour volume is estimated at 1,332 vehicles per hour for the major approach and 219 vehicle for the minor approach. Thus, the intersection of Mar West Street and Tiburon Boulevard satisfies a peak-hour warrant under cumulative conditions.

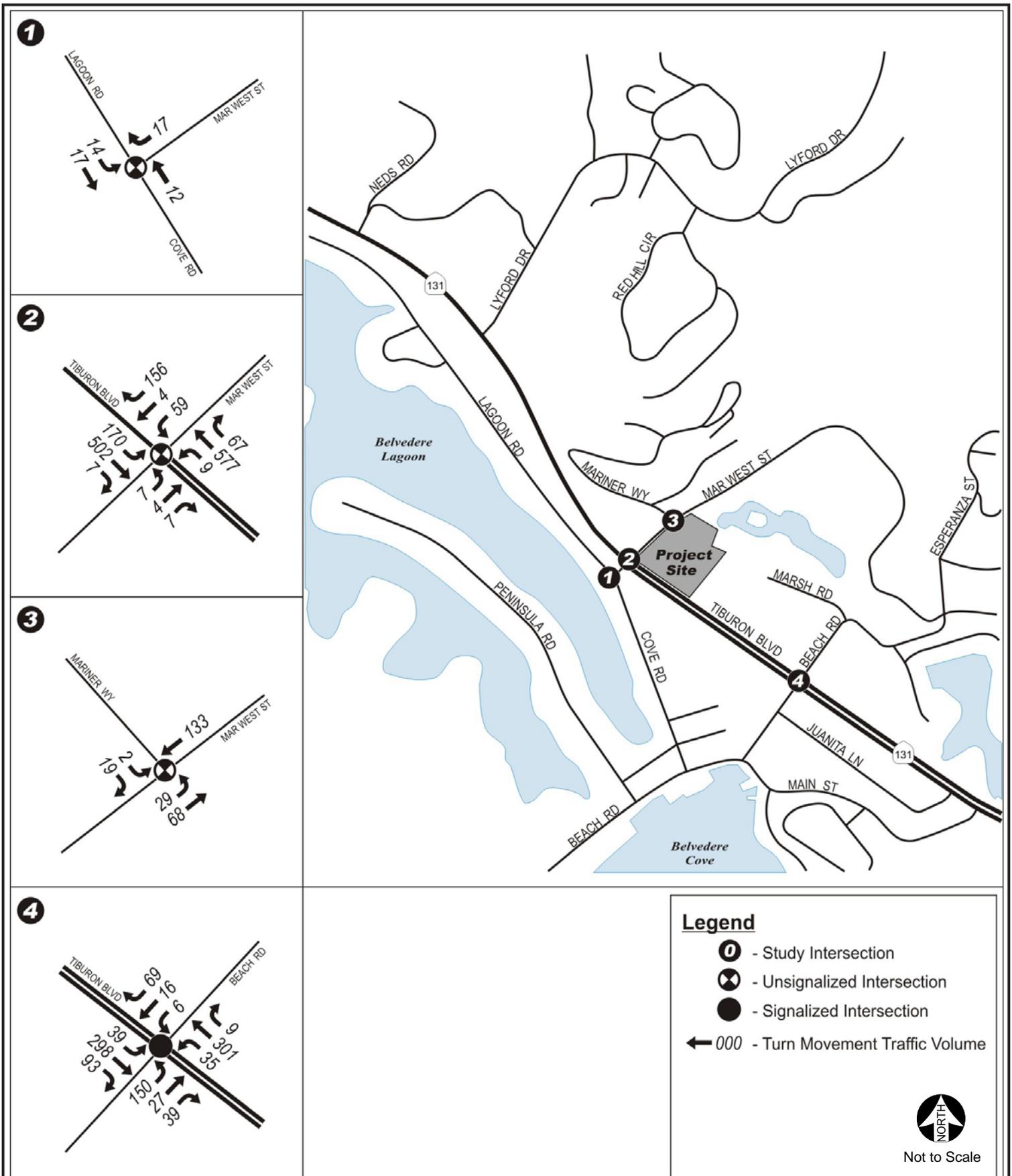
Table IV.H-16 provides a summary of the signal warrant results for the PM peak hour.

Table IV.H-16
Signal Warrants Analysis – P.M. Peak

#	Intersection	Warrant Met?				
		Existing	Background	Project	Cumulative No Project	Cumulative with Project
1	Mar W St & Lagoon Rd/Cove Rd	No	No	No	No	No
2	Mar W St & Tiburon Blvd	No	No	No	No	Yes
3	Mar W St & Mariner W	No	No	No	No	No

Source: DKS Associates, 2009.

Mitigation Measures TRAFFIC-8 is recommended for the proposed project in the future when the volume of traffic reaches this level. This measure would require that the intersection of Mar West Street and Tiburon Boulevard be considered for traffic signal installation and that new traffic signals be installed at adjacent unsignalized intersections if signals are needed for mitigation at this time.



Source: Belvedere-Tiburon Library Expansion Project EIR Traffic Impact Analysis, DKS Associates, February 2010.

Mitigation Measure TRANS-8. The intersection of Mar West Street and Tiburon Boulevard satisfies a peak hour traffic signal warrant and shall be included in the Town's list of intersections that are considered for traffic signal installation. The Town shall employ their own criteria, for ranking and prioritization, including other signal warrants and accident history, when considering the need and timing for traffic signal installation.

The Town's Traffic Mitigation Fee Resolution (No. 02-2007) exempts "municipal and other governmental uses" from payment of traffic mitigation fees. Were the Library project not exempt, the total traffic mitigation fees based on the projected 131 new PM peak trips would be approximately \$690,000. Implementation of Mitigation Measures TRANS-8- would ensure this impact would remain *less than significant*.

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V. GENERAL IMPACT CATEGORIES

Section 15126 of the CEQA Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the Draft EIR must also identify (1) significant environmental effects that cannot be avoided if the proposed project is implemented; (2) significant irreversible environmental change that would result from implementation of the proposed project; and (3) growth-inducing impacts of the proposed project.

A. SUMMARY OF SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts which cannot be avoided, even with implementation of mitigation measures. Based on the analysis contained in this Draft EIR, implementation of the project would result in significant unavoidable impacts related to:

- air quality (consistency with an applicable air quality plan),
- aesthetics (changes to scenic vistas),
- noise (construction groundborne vibration or groundborne noise levels and substantial temporary increase in noise), and
- traffic (parking).

In addition, the project would result in significant unavoidable cumulative impacts to air quality (consistency with an applicable air quality plan) and aesthetics (changes to scenic vistas).

B. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the CEQA Guidelines states that significant irreversible environmental changes associated with a proposed project shall be discussed, including the following:

- *Uses of nonrenewable resources during the initial and continued phases of the project that may be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely;*
- *Primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area), which generally commit future generations to similar uses; and*
- *Irreversible damage that could result from environmental accidents associated with the project.*

The construction and operation of the project would entail the commitment of energy, human resources, and building materials. Ongoing maintenance and operation of the proposed project would entail a further

commitment of energy resources in the form of natural gas, electricity, and water resources. This commitment of energy, personnel, and building materials would be commensurate with that of other projects of similar magnitude, and there are currently no shortages of these resources to the extent that would preclude the construction and operation of the project.

The proposed project would increase in development at the site from approximately 11,990 sf (including a mechanical mezzanine area) to 29,990 (including the mechanical mezzanine area), or a net change of 18,000 sf. The project site is previously developed with the existing Library, parking lot, and Zelinsky Park. Additionally, a portion of the project site is used as open space by the community. Although the project would require a General Plan Amendment and re-zoning, these uses would be similar with the current uses on the site. Therefore, although implementation of the project would commit future generations to using the project site for use as a library, park, parking area and public open space; these uses would be similar to the current uses and would not commit future generations to a significant change in land use.

Irreversible changes to the physical environment could occur from accidental releases of hazardous materials associated with development. However, the project does not propose any hazardous uses and would only involve the use of typical construction and household chemicals and cleaners. Compliance with hazardous materials regulations, policies and mitigation measures is expected to maintain this potential impact as less than significant. No other irreversible changes would result from the adoption and implementation of the proposed project.

C. GROWTH INDUCING IMPACTS OF THE PROPOSED PROJECT

Section 15126.2(d) of the CEQA Guidelines requires a discussion of the ways in which a proposed action could be growth inducing. This includes ways in which the project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Section 15126.2(d) of the CEQA Guidelines reads as follows:

“Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”

In general, a project may foster spatial, economic, or population growth in a geographic area if it meets any one of the criteria identified below:

- The project removes an impediment to growth (e.g., the establishment or expansion of an essential public service to an area)
- The project results in the urbanization of land in a remote location (leapfrog development)
- The project establishes a precedent-setting action (e.g., a change in zoning or General Plan amendment approval)
- Economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.)

If a project meets any one of these criteria, it may be considered growth inducing. Generally, growth inducing projects are either located in isolated, undeveloped, or underdeveloped areas, necessitating the extension of major infrastructure such as sewer and water facilities or roadways, or encourage premature or unplanned growth.

Remove an Impediment to Growth

The majority of the project site has been previously developed and is served by public services, including water, sewer, and energy. The project is a the expansion of an existing public library, relocation of Zelinsky Park, and provision of shared parking, and the project site is bordered by residential, institutional, and commercial development, and surrounded by roadways. These areas have been previously developed as well, and implementation of the project would not result in an increase in population growth in the Town or surrounding area either through the extension of public services or extension of roadways that would draw new residents to an area or the Town.

Urbanization of Land in a Remote Location

The project would not encourage growth through the urbanization of land in remote locations, resulting in “leapfrog” development. The project site is located in an urbanized area in the Town, bounded by the Railroad Marsh to the northeast, Mar West Street and commercial and residential uses to the northwest, Tiburon Boulevard to the southwest, and Tiburon Town Hall and associated parking to the southeast. Consequently, because the proposed project is not located in a remote location, no growth inducing impacts related to urbanization of remote locations would occur.

Precedent-Setting Action

To be consistent with the Town of Tiburon General Plan, Point Tiburon Master Plan, Point Tiburon Precise Plan, and the Zoning Ordinance of the Town of Tiburon, the proposed project would require General Plan Amendments, a Master Plan Amendment, a Precise Plan Amendment, and a rezoning. The approximately 15,000 square foot portion of the Town-owned parcel (058-171-62) currently designated in the General Plan and Point Tiburon Master Plan and Point Tiburon Precise Plan as Open Space would be re-designated as Public/Quasi-Public. That same parcel would need to be rezoned from Open Space to

Public/Quasi-Public in the Tiburon Zoning Ordinance. Additionally, the portion of another Town-owned parcel (058-171-92) designated as Neighborhood Commercial would be redesignated and rezoned as Public/Quasi-Public. This action is required to clean up an inconsistency in the General Plan and zoning on the site. None of these land use designation or zoning changes would result in changes in density on the site and the project's density is consistent with the Town's vision for development in the area and would not create a growth precedent-setting action.

Economic Expansion or Growth

Full time employees may increase by two employees upon implementation of the project. ABAG projects an increase in employment in the Town of 100 jobs from 2010 to 2015. Therefore, the project's contribution to the increase in employment in the Town by 2 percent and would be within ABAG's employment projections for the Town for the year 2015. Consequently, the potential employment increase resulting from the project would not result in direct or indirect growth related to existing or proposed housing projections for the Town.

VI. ALTERNATIVES TO THE PROPOSED PROJECT

A. PURPOSE

The purpose of the alternatives analysis is to assess a range of reasonable alternatives to the proposed project that would feasibly attain most of the basic objectives of the project while avoiding or substantially lessening any of the significant impacts of the project and to evaluate the comparative merits of each alternative (*CEQA Guidelines* §15126.6). The *Guidelines* state that the selection of alternatives should be governed by a “rule of reason.” Not every conceivable alternative must be addressed, nor do infeasible alternatives need to be considered. (*CEQA Guidelines* §15126.6[a]). When addressing feasibility, Section 15126.6 of the *CEQA Guidelines* states, “among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, other plans or regulatory limitations, jurisdictional boundaries...”

Based on the *CEQA Guidelines*, several factors must be considered in determining the range of alternatives to be analyzed in an EIR and the level of analytical detail that should be provided for each alternative. These factors include (1) the nature of the significant impacts of the proposed project, (2) ability of alternatives to avoid or lessen the significant impacts associated with the project, (3) the ability of the alternatives to meet the objectives of the project, and (4) the feasibility of the alternatives.

CEQA also states that, “[t]he EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.” Generally, significant impacts of an alternative are discussed in this section, but in less detail than the proposed project, and should provide decision makers perspective as well as a reasoned choice regarding each alternative.

B. METHODOLOGY

The alternatives analysis is presented as a comparative analysis to the proposed project. A project may have the potential to generate significant impacts, but changes to certain features may also afford the opportunity to avoid or reduce such impacts. The following alternatives analysis compares the potential significant environmental impacts of the three alternatives with those of the proposed project for each of the environmental topics analyzed in Sections IV.A through IV.H (Environmental Impact Analysis) of the EIR.

Selection of a Reasonable Range of Alternatives

Section 15126.6(c) of the *CEQA Guidelines* states: “The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and

briefly explain the reasons underlying the lead agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts."

To determine what range of alternatives should be considered, the impacts identified for the proposed project were considered along with the project objectives. The proposed project is described in detail in Section III, Project Description, and the potential environmental effects of the proposed project are analyzed in Sections IV.A through IV.H.

The project would not result in significant impacts to agriculture and forest resources, geology and soils, hazards and hazardous materials, land use, mineral resources, population and housing, public services, or recreation. Impacts associated with the following topics would be significant without the implementation of mitigation measures, but would be reduced to a less-than-significant level if the mitigation measures recommended in this EIR are implemented.

- Air Quality (emissions)
- Biological Resources
- Hydrology and Water Quality
- Noise (operational noise)
- Transportation/Traffic (signal warrant analysis)

Based on the analysis contained in this Draft EIR, implementation of the project would result in significant unavoidable impacts to:

- Air Quality (consistency with an applicable air quality plan)
- Aesthetics (changes to scenic vistas)
- Noise (construction groundborne vibration or groundborne noise levels and substantial temporary increase in noise)
- Traffic (parking)

C. PROJECT OBJECTIVES

To develop project alternatives, the EIR preparers considered the project objectives and reviewed the significant impacts in Section IV of this EIR to identify those significant impacts that could be avoided or reduced substantially through an alternative (refer to Table VI-1 at the end of this section).

The objectives of the proposed project are as follows:

- Create new spaces that will allow the Library to better fulfill its mission as a learning, technology, and cultural center for all age groups.

- Increase shelving and floor space for library collections in all formats.
- Expand the Children's Room to offer services to children up to age 12. The current space is adequate only for children up to toddler age.
- Add a new Teen Area that will feature relevant materials and collections, a teen gathering space, and group and quiet study areas.
- Provide increased seating capacity and work spaces in public areas.
- Create a dedicated technology center with 20 computer stations. The technology center will allow for hands-on daily training and supported patron computer access.
- Expand programming space to provide
 - A meeting room for 80+ adults
 - Storytelling space for 30 children and parents
 - A conference room for 10-14
 - Four small study rooms
- Enlarge work and office space for library staff and volunteers
- Create new space for a library bookstore and a small café to serve as revenue sources for the library.
- Expand storage space in all areas of the Library.

D. SELECTED ALTERNATIVES

The following discussion is provided to meet the requirement of the *CEQA Guidelines* and provide the public and decision makers with information that will help them understand the adverse impacts and benefits associated with the alternatives to the proposed project. Three alternatives to the project were evaluated: Alternative A: No Project/No Build, Alternative B: Alternate Site Plan and Alternative C: Reduced Library. As significant impacts to air quality and noise would result from any alternative that would result in construction on the site, there are no alternatives that would reduce impacts to air quality and noise other than Alternative A: No Project/No Build. Additionally, neither Alternative B nor C would provide enough parking to eliminate the significant unavoidable impact to parking. Therefore, these alternatives were chosen for their ability to reduce or avoid impacts to scenic vistas resulting from the project.

A more thorough description of each of the alternatives is provided below.

Alternative A: No Project/No Build. Alternative A assumes that the project site would remain in its current condition and would not be subject to development or changes of any sort. Per *CEQA Guidelines* 15126.6(e), the No Project/No Build Alternative is considered to compare the impacts of approving the proposed project to not approving the project. Under Alternative A, there would be no construction of the Library addition, parking lot, or relocation of Zelinsky Park; no removal of the existing shared parking or Town Hall parking lot; or changes to site access from Tiburon Boulevard. There would be no General Plan or Zoning Ordinance amendments.

Alternative B: Alternate Site Plan. Alternative B would expand the existing Belvedere-Tiburon Public Library through the construction of a two-story addition. The existing 10,500 sf Library (11,990 sf including a mechanical mezzanine area) would be expanded by 18,000 sf to 28,500 sf (29,990 sf including the mechanical mezzanine area) in floor area. The expansion would include approximately 16,900 square feet, in a two-story (8,450 sf per level) building. Alternative B assumes that the Library addition would be constructed predominately behind the existing Library. The two-story Library addition would be connected to the existing Library by a 1,100 sf, one-story addition (see Figure VI-1).

The proposed addition would be in an architectural character sympathetic to the existing library and utilize similar exterior materials including the use of the same roof material. The second floor addition would be the same height as the existing library with a roofline reminiscent of the existing library and the spaces within partially accommodated through the use of roof dormers. The existing Library main public entry would be relocated from Tiburon Boulevard to the east façade facing Town Hall and the parking lot. Entry would be in line with the “nave” monumental space in the existing Library. The entry would be ADA compliant. The existing Library entry from Tiburon Boulevard would be maintained as a staff entry and an existing ramped emergency exit door opening onto Mar West Street would be converted into an additional staff entry into the building. A central courtyard at the floor level of the Library would be situated between the addition and the existing building. A raised deck serving the Community Meeting Room would be situated on the northeast corner of the addition and face the Railroad Marsh.

Project site boundaries for Alternative B would be the same as the project. The two-story addition would be located on land (APN 058-171-62) that currently owned by the Town of Tiburon. Tiburon 2020 and the Town’s Zoning Map designate this parcel as Public/Quasi-Public (P) on one portion; with the other portion as Open Space (OS). Since Alternative B would require a portion of APN 058-171-62, it would require General Plan and Zoning Ordinance amendments similar to the project.

Under Alternative B, a parking lot would not be constructed behind the Library. Instead, the Town Hall/Library shared parking would remain in its existing area (although a portion of the parking area would be removed to allow for construction of the Zelinsky Promenade/Garden Plaza) and the existing lot behind the Town Hall would be expanded northward. Under Alternative B approximately 11 parking spaces would be added to the existing 51 space car parking area for a total of 62 parking spaces. Eight spaces in the lot would be ADA compliant. The lot would serve both the Library and Town Hall. Similar to the project, Zelinsky Park would be relocated to the east. Access to Tiburon Boulevard would remain unchanged and there would be no additional access to the project site from Mar West Street.

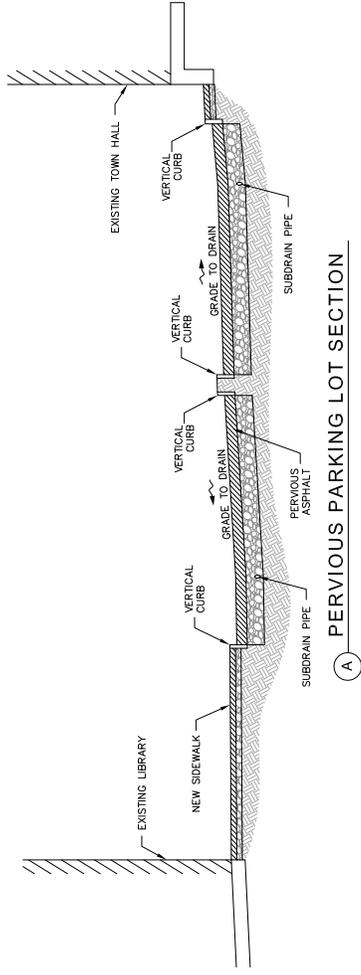
A cross section of Alternative B is shown in Figure VI-2. The parking lot would be surfaced with pervious asphaltic concrete and landscaped with trees and plants. Stormwater would filter through pervious pavement, crushed rock, and Class II permeable base and be collected in a subdrain system, that connects into the public storm drain system. The tree planting plan in the parking lot would include shade trees at parking islands to reduce heat island effect.

Alternative C: Reduced Library. Alternative C would expand the existing Belvedere-Tiburon Public Library through the construction of a one-story addition. The existing 10,500 sf Library (11,990 sf including a mechanical mezzanine area) would be expanded by approximately 9,000 sf to 19,500 sf (20,990 sf including the mechanical mezzanine area) in floor area. Alternative C would also result in changes to vehicular access points; changes to site parking, including the installation of a new fifty-two (52) space car parking area; and relocation of the existing Zelinsky Park. Approximately fifty-one (51) existing parking spaces would be eliminated by the project.

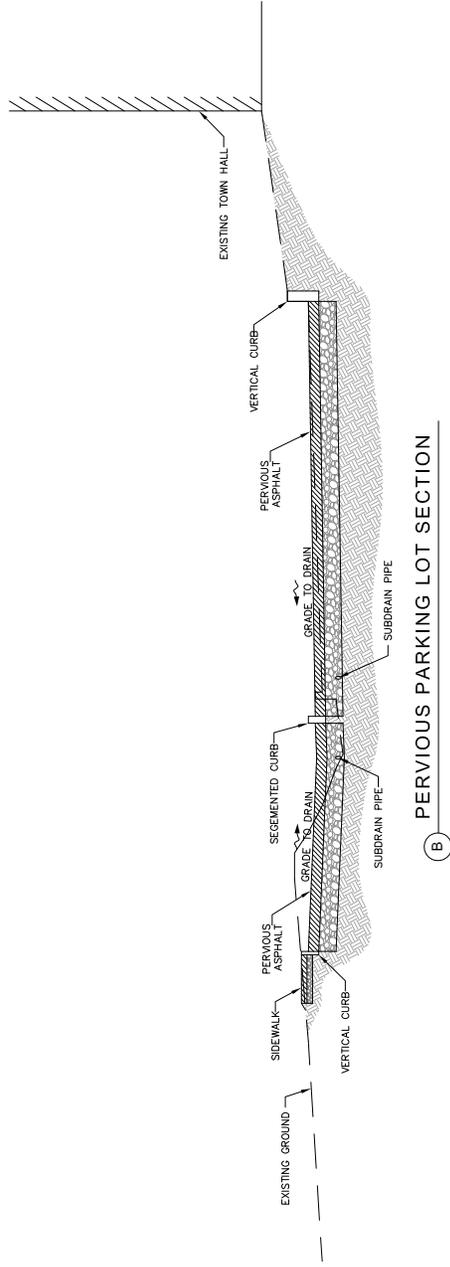
All other components under Alternative C would be the same as under the project including lighting and landscaping improvements, including the installation of a Town Plaza and Zelinsky Promenade/Garden Plaza extending from Tiburon Boulevard to Zelinsky Park, restoration of the existing Zelinsky Park area, landscaping, and installation of a Story Time Area and Staff Patio. The only difference between Alternative C and the project would be the removal of the second floor components including book shelves, staff rooms, study areas, and restrooms.

Alternatives Rejected as Being Infeasible

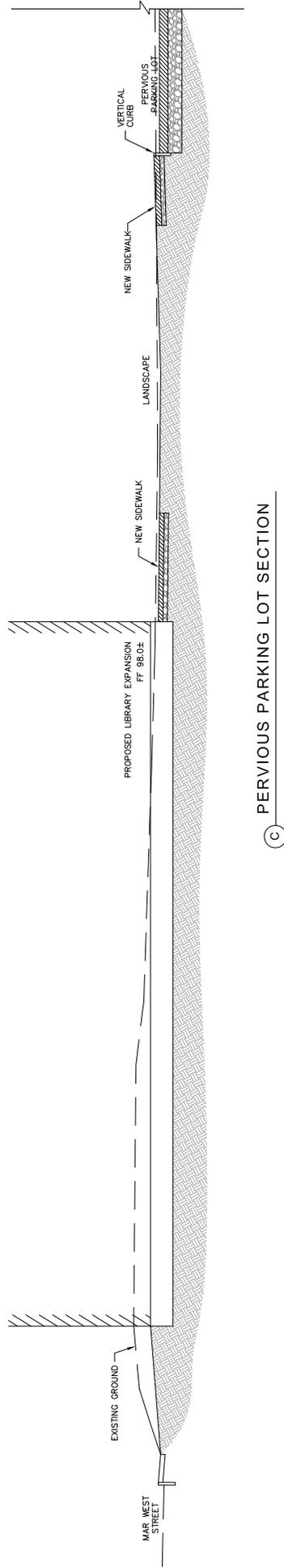
As described above, Section 15126.6(c) of the CEQA Guidelines requires an EIR to identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process, and briefly explain the reasons underlying the lead agency's determination. Given the nature of the project (a building expansion for a specific site), the fact that the project applicant owns a portion of this site (and no other sites) and does not intend to develop these uses in another place; an off-site alternative was not feasible.



(A) PERVIOUS PARKING LOT SECTION



(B) PERVIOUS PARKING LOT SECTION



(C) PERVIOUS PARKING LOT SECTION

Source: BKF Architecture, January 11, 2010.

CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Figure VI-2
Alternative B Cross Section

E. ALTERNATIVES ANALYSIS

The potential environmental impacts associated with Alternatives A, B, and Care described below and are compared to the significant environmental impacts associated with the proposed project in Table VI-1, Comparison of Alternatives to the Proposed Project.

Alternative A: No Project/No Build

As required by CEQA, this subsection analyzes a “No Project” Alternative (Alternative A). CEQA requires the evaluation of a “No Project No Build” alternative, which means “the existing conditions, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services” (CEQA Guidelines, Section 15126.6[e][2]). Evaluation of this alternative allows the Town to compare the impact of approving the proposed project with the impacts of not approving the proposed project.

Alternative A assumes that the project site would remain in its current condition and would not be subject to development. Per *CEQA Guidelines* 15126.6(e), the No Project/No Build Alternative is considered to compare the impacts of approving the proposed project to not approving the project. Under Alternative A, there would be no construction of the Library addition or parking lot, relocation of Zelinsky Park, removal of the existing shared parking or Town Hall parking lot, or changes to site access from Tiburon Boulevard.

Aesthetics

Under Alternative A, there would be no construction of the Library addition or parking lot, relocation of Zelinsky Park, removal of the existing shared parking or Town Hall parking lot, or changes to site access from Tiburon Boulevard. Since there would be no construction of the Library addition, views of Tiburon Ridge available from Tiburon Boulevard and other public areas such as the shared Town Hall/Library parking lot would not be limited and this impact would be less than the project’s significant and unavoidable impact. Similar to the project, Alternative A would not result in any impacts to an eligible or officially designated State Scenic Highway. Under Alternative A, the project site would not be developed and there would be no change in the visual character or quality of the site. Although the project would be consistent and compatible with the existing development and the Downtown Tiburon Design Handbook and would not substantially degrade the existing visual character or quality of the site, due to the fact that there would be no change on the site, impacts under Alternative A would be incrementally less than the project. Additionally, Alternative A would not result in any additional lighting on the site. Although impacts from light and glare would be less than significant under the project, due to the fact that there would be no change to lighting on the site, impacts under Alternative A would be incrementally less than the project. Overall, impacts to aesthetics under Alternative A would be less than under the project.

Air Quality

Under Alternative A, there would be no General Plan Amendment on the project site. For General Plan amendments, the BAAQMD *CEQA Guidelines* recommend that the impact of the change in land use designation with respect to vehicle miles traveled (VMT) and the potential for the project to exposure sensitive receptors to sources of objectionable odors, toxics, or accidental releases of hazardous materials be evaluated to determine consistency with the current CAP. Under Alternative A, there would be no change in land use that would generate more vehicle trips (and more miles traveled) than those that would be generated under the project. Therefore, Alternative A would avoid the significant unavoidable impact with regard to consistency with applicable air quality plans. Alternative A would not require construction activities that would result in construction emissions and this impact, while less than significant under the project, would be further reduced. Additionally, Alternative A would not result in an increase in vehicle trips that would generate emissions or pollutants and this impact, while less than significant under the project, would be further reduced. Similar to the project, Alternative A would not create any objectionable odors. Alternative A would not require any construction activities that would generate GHG emissions and would not increase vehicle trips to and from the project site. Therefore, GHG emissions, while not significant under the project, would be incrementally reduced. Overall, impacts to air quality under Alternative A would be less than under the project.

Biological Resources

Under Alternative A, there would be no construction and grading activities. Two special status plants, the Point Reyes checkerbloom and the Suisun Marsh aster, have a moderate potential to occur in Railroad Marsh. Additionally, two special status species, the California red-legged frog and the salt marsh common yellow throat have a moderate potential to occur on site due to the proximity of Railroad Marsh which contains suitable habitat for these species. Therefore, the potential for inadvertent impacts to special status plants or wildlife associated with Railroad Marsh due to the construction of the project (although they would be less than significant) would not be present under Alternative A. Similarly, there would be no grading that could affect any riparian habitat on the site. Although impacts to riparian habitat would be less than significant under the project, due to the fact that there would be no grading or development on the site, impacts under Alternative A would be incrementally less than the project. Although no direct impacts to wetlands would occur under the project, under Alternative A there would no grading or development on the site with any potential to impact wetlands. Therefore, this impact would be reduced from the project. Additionally, there would be no grading or development on the site with the potential to interfere with wildlife, potential nursery sites, and wildlife movement corridors. Although this impact would be less than significant under the project, it would be further reduced under Alternative A. Similar to the project, there would be no conflicts with Tiburon 2020 under Alternative A. Similar to the project, Alternative A would not conflict with Habitat Conservation Plan, Natural Community Plan. Overall, impacts to biological resources under Alternative A would be less than under the project.

Hydrology and Water Quality

Under Alternative A, there would be no construction and grading activities that would expose areas susceptible to erosion resulting in sedimentation in the Railroad Marsh or in Richardson Bay via the Town's stormwater system. Additionally, there would be no increase in paved surfaces and parking areas that would contribute additional stormwater runoff contaminants typical of urban landscapes—oil and grease, fertilizers, insecticides and rodenticides, trace metals (from brake dust), pathogens associated with pet waste, and litter. Similar to the project, Alternative A would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge or increase siltation in Railroad Marsh. Under Alternative A, no grading would occur and the project's less than significant impact related to erosion would be incrementally reduced. There would be no change in the amount of surface runoff from the site that could result in flooding or exceed the capacity of existing storm drainage on the site. Similar to the project, there would be no housing constructed on the site. Alternative A would not result in the placement of any fill on the project site or construction of buildings in the FEMA-designated 100-year flood zone associated with Belvedere Lagoon and impacts to the FEMA flood zone, while less than significant under the project, would be incrementally reduced under Alternative A. Similar to the project, Alternative A is not located downstream of any levees or dams, and is therefore not subject to flooding due to dam failure. Recently-released tsunami inundation maps indicate that the project site is located in an area subject to inundation by tsunami. Although this impact would be less than significant under the project, it would be incrementally reduced under Alternative A. Overall, impacts to hydrology and water quality under Alternative A would be less than under the project.

Land Use and Planning

Under Alternative A, there would be no General Plan Amendments or Zoning Ordinance changes. Similar to the project, Alternative A would not physically divide an established community and there would be no impact. Unlike the project, Alternative A would not result in any inconsistencies with applicable Tiburon 2020 policies pertaining to scenic vistas due to view blockage of Tiburon Ridge, a significant viewshed, from Tiburon Boulevard. Similar to the project, Alternative A would not conflict with any Habitat Conservation Plans or Natural Community Plans that are applicable to the Project site. Therefore, overall impacts to land use under Alternative A would be less than under the project.

Noise

Under Alternative A, there would be no construction and grading activities that would generate construction noise. Therefore, Alternative A would not generate noise levels in excess of standards established in the local general plan or noise ordinance. This impact would be less than under the project's less than significant impact. Alternative A would not generate any additional vehicle trips and, while the increase in noise under the project would be less than significant, this impact would be incrementally reduced under Alternative A. No construction would be required under Alternative A and the significant unavoidable impact from excessive groundborne vibration or groundborne noise levels, and significant temporary or periodic increase in ambient noise levels to existing Library users, the Town

Hall, and near by land uses created by the project would not occur. Overall, impacts to noise from Alternative A would be less than under the project.

Transportation/Traffic

Under Alternative A, no Library addition would be constructed and no additional vehicle trips would be generated. Traffic at area intersections and roadways would remain the same and this impact would be incrementally less than the project's less than significant impacts. Since Alternative A would not increase vehicle trips in the area, the project's less than significant impact to pedestrian safety and circulation would be incrementally reduced. Additionally, there would be no change to circulation on the site. Alternative A would have no impact on adopted policies and plans supporting alternative transportation. This would be less than the project's less than significant impact. Under Alternative A, there would be no increase in vehicles on the site and no change to parking areas. Therefore, this impact would be less than the project's significant and unavoidable impact to parking. Overall, impacts to traffic under Alternative A would be less than under the project.

Alternative B: Alternate Site Plan

Alternative B would expand the existing Belvedere-Tiburon Public Library through the construction of a two-story addition. The existing 10,500 sf Library (11,990 sf including a mechanical mezzanine area) would be expanded by 18,000 sf to 28,500 sf (29,990 sf including the mechanical mezzanine area) in floor area. The expansion would include approximately 16,900 square feet, in a two-story (8,450 sf per level) building. Alternative B assumes that the Library addition would be constructed predominately behind the existing Library. The two-story Library addition would be connected to the existing Library by a 1,100 sf, one-story addition. Figures VI.-1 and -2 illustrate Alternative B site plan and cross-section.

The proposed addition would be in an architectural character sympathetic to the existing library and utilize similar exterior materials including the use of the same roof material. The second floor addition would be the same height as the existing library with a roofline reminiscent of the existing library and the spaces within partially accommodated through the use of roof dormers. The existing Library main public entry would be relocated from Tiburon Boulevard to the east façade facing Town Hall and the parking lot. Entry would be in line with the "nave" monumental space in the existing Library. The entry would ADA compliant. The existing Library entry from Tiburon Boulevard would be maintained as a staff entry and an existing ramped emergency exit door opening onto Mar West Street would be converted into an additional staff entry into the building. A central courtyard at the floor level of the Library would be situated between the addition and the existing building. A raised deck serving the Community Meeting Room would be situated on the northeast corner of the addition and face the Railroad Marsh.

Project site boundaries and acreage for Alternative B would be the same as the project. The two-story addition would be located on land (APN 058-171-62) that currently owned by the Town of Tiburon. Tiburon 2020 and the Town's Zoning Map designate this parcel as Public/Quasi-Public (P) on one

portion; with the other portion as Open Space (OS). Since Alternative B would require a portion of APN 058-171-62, it would require General Plan and Zoning Ordinance amendments similar to the project.

Under Alternative B, a parking lot would not be constructed behind the Library. Instead, the Town Hall/Library shared parking would remain in its existing area (although a portion of the parking area would be removed to allow for construction of the Zelinsky Promenade/Garden Plaza) and the existing lot behind the Town Hall would be expanded northward. Under Alternative B approximately 11 parking spaces would be added to the existing 51 space car parking area for a total of 62 parking spaces. Eight spaces in the lot would be ADA compliant. The lot would serve both the Library and Town Hall. Similar to the project, Zelinsky Park would be relocated to the east. Access to Tiburon Boulevard would remain unchanged and there would be no additional access to the project site from Mar West Street.

The parking lot would be surfaced with pervious asphaltic concrete and landscaped with trees and plants. Stormwater would filter through pervious pavement, crushed rock, and Class II permeable base and be collected in a subdrain system that connects into the public storm drain system. The tree planting plan in the parking lot would include shade trees at parking islands to reduce heat island effect.

Aesthetics

Under Alternative B, the Library addition would be constructed predominately behind the existing Library. Part of the Town Hall/Library shared parking would be located in the same area, although a portion of the parking would be removed to allow for construction of the Zelinsky Promenade/Garden Plaza. The existing parking area behind the Town Hall would be expanded into a previously undeveloped area adjacent to Zelinsky Park. Construction of the Library addition behind the existing Library would not block views of Tiburon Ridge available from Tiburon Boulevard and other public areas such as the shared Town Hall/Library parking lot and this impact would be less than the project's significant and unavoidable impact. Similar to the project, Alternative B would not result in any impacts to an eligible or officially designated State Scenic Highway. Under Alternative B, the project site would be developed with uses consistent and compatible with the existing development and similar to the project, impacts to change in the visual character or quality of the site would be less than significant. However, Alternative B would be less consistent with provisions of the Downtown Tiburon Design Handbook. Alternative B would result in the same type and amount of additional lighting on the site as the project; therefore, impacts would be similar to the project and less than significant. Overall, impacts to aesthetics under Alternative B would be less than under the project.

Air Quality

Similar to the project, Alternative B would require a General Plan Amendment on the project site to re-designate a portion of APN 058-171-62 from Open Space to Public/Quasi-Public. For General Plan amendments, the BAAQMD *CEQA Guidelines* recommend that the impact of the change in land use designation with respect to vehicle miles traveled (VMT) and the potential for the project to exposure sensitive receptors to sources of objectionable odors, toxics, or accidental releases of hazardous materials

be evaluated to determine consistency with the current CAP. Similar to the project, Alternative B would change the land use on the site and would generate a similar number of vehicle trips (and more miles traveled) as the project. Therefore, Alternative B would not avoid the significant unavoidable impact with regard to consistency with applicable air quality plans and this impact would be the same. Similar to the project, Alternative B would require construction activities that would result in construction emissions and this less than significant impact under the project would be the same. Alternative B would result in an increase in vehicle trips that would generate emissions or pollutants and this less than significant impact under the project would be the same. Similar to the project, Alternative B would not create any objectionable odors. Alternative B would require construction activities that would generate GHG emissions and would increase vehicle trips to and from the project site. However, similar to the project, GHG emissions would be similar to the project's less than significant impact. Overall, impacts to air quality under Alternative B would be the same as under the project.

Biological Resources

Similar to the project, Alternative B, would require construction and grading activities. Two special status plants, the Point Reyes checkerbloom and the Suisun Marsh aster, have a moderate potential to occur in Railroad Marsh. Additionally, two special status species, the California red-legged frog and the salt marsh common yellow throat have a moderate potential to occur on site due to the proximity of Railroad Marsh which contains suitable habitat for these species. Therefore, the potential for inadvertent impacts to special status plants or wildlife associated with Railroad Marsh due to the construction of the project (although they would be less than significant) would be present under Alternative B and could be incrementally greater as Alternative B disturbs a larger area and would be located closer to the Marsh. Similarly, there would be more grading that could affect any riparian habitat on the site and impacts to riparian habitat would be incrementally greater under Alternative B than the project. No direct impacts to wetlands would occur under the project or under Alternative B; however, Alternative B would result in more grading on the site that would be potentially closer to wetlands. Therefore, this impact would be incrementally greater than under the project. Additionally, grading or development on the site with the potential to interfere with wildlife, potential nursery sites, and wildlife movement corridors would be incrementally greater under Alternative B. Similar to the project, there would be no conflicts with Tiburon 2020 under Alternative B. Similar to the project, Alternative B would not conflict with Habitat Conservation Plan, Natural Community Plan. Overall, impacts to biological resources under Alternative B would be incrementally greater than under the project, although still less than significant.

Hydrology and Water Quality

Similar to the project, Alternative B would require construction and grading activities that would expose areas susceptible to erosion resulting in sedimentation in the Railroad Marsh or in Richardson Bay via the Town's stormwater system. Alternative B would result in a larger area of disturbance than the project, which would result in an incremental increase in paved surfaces and parking areas that would contribute additional stormwater runoff contaminants typical of urban landscapes—oil and grease, fertilizers, insecticides and rodenticides, trace metals (from brake dust), pathogens associated with pet waste, and

litter. However, this impact would remain less than significant as runoff from paved surfaces and parking areas would be retained on site. Similar to the project, Alternative B would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge or increase siltation in Railroad Marsh. The larger amount of impervious surfaces under Alternative B would incrementally increase runoff from the site. However, similar to the project, this runoff would be captured and there would be no change in the amount of surface runoff from the site that could result in flooding or exceed the capacity of existing storm drainage on the site. Similar to the project, there would be no housing constructed on the site. Alternative B would not result in the construction of buildings in the FEMA-designated 100-year flood zone associated with Belvedere Lagoon. Impacts to the FEMA flood zone, while less than significant under the project, would be incrementally greater under Alternative B due to the larger footprint of impervious surfaces. Similar to the project, Alternative B is not located downstream of any levees or dams, and is therefore not subject to flooding due to dam failure. Recently-released tsunami inundation maps indicate that the project site is located in an area subject to inundation by tsunami. This impact would be less than significant under the project and would be the same under Alternative B. Overall, impacts to hydrology and water quality under Alternative B, while less than significant, would be greater than under the project.

Land Use and Planning

Similar to the project, Alternative B would require General Plan Amendments and Zoning Ordinance changes to re-designate and re-zone a portion of APN 058-171-62 from Open Space to Public/Quasi-Public. Similar to the project, Alternative B would not physically divide an established community and there would be no impact. Construction of the Library addition behind the existing Library would not block views of Tiburon Ridge available from Tiburon Boulevard and unlike the project, Alternative B would not result in any inconsistencies with applicable Tiburon 2020 policies pertaining to scenic vistas due to view blockage of Tiburon Ridge from Tiburon Boulevard. Therefore this impact would be less than under the project. Similar to the project, Alternative B would not conflict with any Habitat Conservation Plans or Natural Community Plans that are applicable to the Project site. Therefore, overall impacts to land use under Alternative B would be less than under the project.

Noise

Under Alternative B, construction and grading activities would generate construction noise. However, similar to the project, Alternative B would not generate noise levels in excess of standards established in the local general plan or noise ordinance. This impact would be similar to the project's less than significant impact. Similar to the project, Alternative B would generate additional vehicle trips and, this impact would be the same as the project's less than significant impact. Construction required under Alternative B would create the same significant unavoidable impact from excessive groundborne vibration or groundborne noise levels, and significant temporary or periodic increase in ambient noise levels to existing Library users, the Town Hall, and near by land uses as created by the project. Overall, impacts to noise from Alternative B would be the same as under the project.

Transportation/Traffic

Under Alternative B, a Library addition would be constructed and, similar to the project additional vehicle trips would be generated. Similar to the project, traffic at area intersections and roadways would increase and this impact would be similar to the project's less than significant impacts. Since Alternative B would increase vehicle trips in the area, the project's less than significant impact to pedestrian safety and circulation would be the same. Alternative B would include changes to circulation on the site, but similar to the project, this impact would be less than significant. Alternative B would have no impact on adopted policies and plans supporting alternative transportation. This would be similar to the project's less than significant impact. Under Alternative B, a parking lot would not be constructed behind the Library. Instead, the Town Hall/Library shared parking would remain in its existing area (although a portion of the parking area would be removed to allow for construction of the Zelinsky Promenade/Garden Plaza) and the existing lot behind the Town Hall would be expanded northward. Under Alternative B approximately 11 parking spaces would be added to the existing 51 space car parking area for a total of 62 parking spaces. Therefore, more parking would be provided under Alternative B and this impact would be less than under the project's significant and unavoidable impact to parking. However, although Alternative B would provide a larger number of parking spaces it would not provide enough to accommodate needed parking for all times and events. Therefore, overall impacts to traffic under Alternative B would be the same as under the project.

Alternative C: Reduced Library

Alternative C would expand the existing Belvedere-Tiburon Public Library through the construction of a one-story addition. The existing 10,500 sf Library (11,990 sf including a mechanical mezzanine area) would be expanded by approximately 9,000 sf to 19,500 sf (20,990 sf including the mechanical mezzanine area) in floor area. Alternative C would also result in changes to vehicular access points; changes to site parking, including the installation of a new fifty-two (52) space car parking area; and relocation of the existing Zelinsky Park. In addition, approximately fifty-one (51) existing parking spaces would be eliminated.

All other components under Alternative C would be the same as under the project including lighting and landscaping improvements, including the installation of a Town Plaza and Zelinsky Promenade/Garden Plaza extending from Tiburon Boulevard to Zelinsky Park, restoration of the existing Zelinsky Park area, landscaping, and installation of a Story Time Area and Staff Patio. The only difference between Alternative C and the project would be the removal of the second floor components including book shelves, staff rooms, study areas, and restrooms.

Aesthetics

Under Alternative C, the Library addition would be constructed with the same building footprint as the project, although with a one-story addition. The Town Hall/Library shared parking would be located in the same area with the same number of parking spaces. Construction of the Library addition with a one-

story addition would allow partial views of the Tiburon Ridge from Tiburon Boulevard and other public areas such as the shared Town Hall/Library parking lot. While the entire Ridge would not be visible, a good portion of Tiburon Ridge would be; therefore, impacts to scenic vistas from Alternative C would be less than the project's significant and unavoidable impact. Similar to the project, Alternative C would not result in any impacts to an eligible or officially designated State Scenic Highway. Under Alternative C, the project site would be developed with uses consistent and compatible with the existing development and similar to the project, impacts to change in the visual character or quality of the site would be less than significant. Similar to the project, Alternative C would be consistent with provisions of the Downtown Tiburon Design Handbook. Alternative C would result in the same type of additional lighting on the site as the project, although in a smaller amount as there would be no second story addition with windows where lighting would be visible. Therefore, impacts from lighting would be incrementally less than the project and less than significant. Overall, impacts to aesthetics under Alternative C would be less than under the project.

Air Quality

Similar to the project, Alternative C would require a General Plan Amendment on the project site to re-designate a portion of APN 058-171-62 from Open Space to Public/Quasi-Public. For General Plan amendments, the BAAQMD *CEQA Guidelines* recommend that the impact of the change in land use designation with respect to vehicle miles traveled (VMT) and the potential for the project to exposure sensitive receptors to sources of objectionable odors, toxics, or accidental releases of hazardous materials be evaluated to determine consistency with the current CAP. Similar to the project, Alternative C would change the land use on the site and would generate a similar number of vehicle trips (and more miles traveled) as the project. Therefore, Alternative C would not avoid the significant unavoidable impact with regard to consistency with applicable air quality plans and this impact would be the same. Similar to the project, Alternative C would require construction activities that would result in construction emissions and this less than significant impact under the project would be the same. Alternative C would result in an increase in vehicle trips that would generate emissions or pollutants and this less than significant impact under the project would be the same. Similar to the project, Alternative C would not create any objectionable odors. Alternative C would require construction activities that would generate GHG emissions and would increase vehicle trips to and from the project site. However, GHG emissions would be incrementally less than the project's less than significant impact. Overall, impacts to air quality under Alternative C would be the same as under the project.

Biological Resources

Similar to the project, Alternative C, would require construction and grading activities. Two special status plants, the Point Reyes checkerbloom and the Suisun Marsh aster, have a moderate potential to occur in Railroad Marsh. Additionally, two special status species, the California red-legged frog and the salt marsh common yellow throat have a moderate potential to occur on site due to the proximity of Railroad Marsh which contains suitable habitat for these species. Therefore, the potential for inadvertent impacts to special status plants or wildlife associated with Railroad Marsh due to the construction of the project

(although they would be less than significant) would be the same as under the project. Similarly, there would be grading that could affect any riparian habitat on the site and impacts to riparian habitat would be similar under Alternative C as under the project. No direct impacts to wetlands would occur under the project or under Alternative C and this impact would be the same as under the project. Additionally, grading or development on the site with the potential to interfere with wildlife, potential nursery sites, and wildlife movement corridors would be the same under Alternative C as the project. Similar to the project, there would be no conflicts with Tiburon 2020 under Alternative C. Similar to the project, Alternative C would not conflict with Habitat Conservation Plan or a Natural Community Plan. Overall, impacts to biological resources under Alternative C would be the same as under the project and less than significant.

Hydrology and Water Quality

Similar to the project, Alternative C would require construction and grading activities that would expose areas susceptible to erosion resulting in sedimentation in the Railroad Marsh or in Richardson Bay via the Town's stormwater system. Alternative C would result in the same area of disturbance as the project, which would result in the same increase in paved surfaces and parking areas that would contribute additional stormwater runoff contaminants typical of urban landscapes—oil and grease, fertilizers, insecticides and rodenticides, trace metals (from brake dust), pathogens associated with pet waste, and litter. However, this impact would remain less than significant as runoff from paved surfaces and parking areas would be retained on site. Similar to the project, Alternative C would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge or increase siltation in Railroad Marsh. Alternative C would result in the same increase in impervious surfaces as the project, which would increase runoff from the site. However, similar to the project, this runoff would be captured and there would be no change in the amount of surface runoff from the site that could result in flooding or exceed the capacity of existing storm drainage on the site. Similar to the project, there would be no housing constructed on the site. Alternative C would not result in the construction of buildings in the FEMA-designated 100-year flood zone associated with Belvedere Lagoon. Impacts to the FEMA flood zone, would be the same as under the project and less than significant. Similar to the project, Alternative C is not located downstream of any levees or dams, and is therefore not subject to flooding due to dam failure. Recently-released tsunami inundation maps indicate that the project site is located in an area subject to inundation by tsunami. This impact would be less than significant under the project and would be the same under Alternative C. Overall, impacts to hydrology and water quality under Alternative C, would be the same as under the project and less than significant.

Land Use and Planning

Similar to the project, Alternative C would require General Plan Amendments and Zoning Ordinance changes to re-designate and re-zone a portion of APN 058-171-62 from Open Space to Public/Quasi-Public. Similar to the project, Alternative C would not physically divide an established community and there would be no impact. Construction of the one-story Library addition would not block views of Tiburon Ridge available from Tiburon Boulevard to the same extent as the project and unlike the project, Alternative C would not result in any inconsistencies with applicable Tiburon 2020 policies pertaining to

scenic vistas due to view blockage of Tiburon Ridge from Tiburon Boulevard. Therefore this impact would be less than under the project. Similar to the project, Alternative C would not conflict with any Habitat Conservation Plans or Natural Community Plans that are applicable to the Project site. Therefore, overall impacts to land use under Alternative C would be less than under the project.

Noise

Under Alternative C, construction and grading activities would generate construction noise. However, similar to the project, Alternative C would not generate noise levels in excess of standards established in the local general plan or noise ordinance. This impact would be similar to the project's less than significant impact. Similar to the project, Alternative C would generate additional vehicle trips and, this impact would be the same as the project's less than significant impact. Construction required under Alternative C would create the same significant unavoidable impact from excessive groundborne vibration or groundborne noise levels, and significant temporary or periodic increase in ambient noise levels to existing Library users, the Town Hall, and near by land uses as created by the project. Overall, impacts to noise from Alternative C would be the same as under the project.

Transportation/Traffic

Under Alternative C, a Library addition would be constructed and, similar to the project additional vehicle trips would be generated. Similar to the project, traffic at area intersections and roadways would increase and this impact would be similar to the project's less than significant impacts. Since Alternative C would increase vehicle trips in the area, the project's less than significant impact to pedestrian safety and circulation would be the same. Alternative C would include changes to circulation on the site, but similar to the project, this impact would be less than significant. Alternative C would have no impact on adopted policies and plans supporting alternative transportation. This would be similar to the project's less than significant impact. Under Alternative C, a new fifty-two (52) space parking lot would be constructed behind the Library and approximately fifty-one (51) existing parking spaces would be eliminated. Therefore, the same amount of parking would be provided under Alternative C as the project and this impact would be the same as under the project and significant and unavoidable. Therefore, overall impacts to traffic under Alternative C would be the same as under the project.

F. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In addition to the discussion and comparison of impacts of the proposed project and the alternatives, Section 15126.6 of the CEQA Guidelines requires that an "environmentally superior" alternative be selected and the reasons for such a selection disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least amount of significant impacts. Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets the goals or needs of the applicant or the lead agency.

Table VI-1 summarizes the comparative impacts of each of the alternatives when compared to the project. The table lists the level of significance of the impacts of the project to each environmental topic analyzed

in Section IV and shows whether the impacts anticipated under each proposed alternative would be lesser, similar, or greater than the proposed project. The table provides a comparison of the ability of each alternative to avoid or substantially reduce the significant impacts of the project.

The alternatives to the project considered for analysis propose either no change to the project site or a revised site plan. Alternative A, the No Project/No Build Alternative, proposes no change to the project site and would avoid the significant unavoidable impacts of the project. However, CEQA requires that if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives (CEQA Guidelines, Section 15126.6[e][2]). Based on the analysis provided above, Alternative C would be the environmentally superior alternative because, while not reducing or avoiding significant unavoidable impacts to air quality, noise, or parking, it would avoid significant unavoidable project impacts related to aesthetics.

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**Table VI-1
Comparison of Alternatives to the Proposed Project**

ENVIRONMENTAL ISSUE AREA	PROJECT	ALTERNATIVE A No Project/No Build	ALTERNATIVE B Alternate Site Plan	ALTERNATIVE C Reduced Library
AESTHETICS				
<i>Would the project have a substantial adverse effect on a scenic vista?</i>	SU	Less	Less	Less
<i>Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic</i>	NI	Similar	Similar	Similar
<i>Would the project substantially degrade the existing visual character or quality of the site and its surroundings?</i>	LTS	Less	Similar	Similar
<i>Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</i>	LTS	Less	Similar	Less
AIR QUALITY				
<i>Would the project conflict with or obstruct implementation of the applicable air quality plan?</i>	SU	Less	Similar	Similar
<i>Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?</i>	LTS/M	Less	Similar	Similar
<i>Would the project expose sensitive receptors to substantial pollutants?</i>	LTS	Less	Similar	Similar
<i>Would the project create objectionable odors?</i>	NI	Similar	Similar	Similar
<i>Green House Gas Emissions: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the</i>	LTS	Less	Similar	Less
<i>Green House Gas Emissions: Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?</i>	LTS	Less	Similar	Similar
BIOLOGICAL RESOURCES				
<i>Would the project have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Services?</i>	LTS/M	Less	More	Similar

**Table VI-1
Comparison of Alternatives to the Proposed Project**

ENVIRONMENTAL ISSUE AREA	PROJECT	ALTERNATIVE A No Project/No Build	ALTERNATIVE B Alternate Site Plan	ALTERNATIVE C Reduced Library
<i>Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game, or the U.S Fish and Wildlife Service?</i>	LTS/M	Less	More	Similar
<i>Would the project 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?</i>	LTS/M	Less	More	Similar
<i>Would the project 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?</i>	LTS/M	Less	More	Similar
<i>Would the project conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</i>	NI	Similar	Similar	Similar
HYDROLOGY & WATER QUALITY				
<i>Would the project violate water quality standards or waste discharge requirements?</i>	LTS/M	Less	More	Similar
<i>Would the project 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)?</i>	LTS	Similar	Similar	Similar
<i>Would the project 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?</i>	LTS	Less	Similar	Similar

**Table VI-1
Comparison of Alternatives to the Proposed Project**

ENVIRONMENTAL ISSUE AREA	PROJECT	ALTERNATIVE A No Project/No Build	ALTERNATIVE B Alternate Site Plan	ALTERNATIVE C Reduced Library
<i>Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?</i>	LTS/M	Less	Similar	Similar
<i>Would the project 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?</i>	LTS/M	Less	Similar	Similar
<i>Would the project otherwise substantially degrade water quality?</i>	LTS/M	Less	More	Similar
<i>Would the project 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?</i>	NI	Similar	Similar	Similar
<i>Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?</i>	LTS	Less	Similar	Similar
<i>Would the project 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?</i>	LTS/M	Less	Similar	Similar
<i>Would the project expose people or structures to inundation by seiche, tsunami, or mudflow?</i>	LTS	Less	Similar	Similar
LAND USE & PLANNING				
<i>Would the project physically divide an established community?</i>	NI	Similar	Similar	Similar
<i>Would the project 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 with the purpose of avoiding or mitigating an environmental</i>	LTS	Less	Less	Less
<i>Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?</i>	LTS	Similar	Similar	Similar

**Table VI-1
Comparison of Alternatives to the Proposed Project**

ENVIRONMENTAL ISSUE AREA	PROJECT	ALTERNATIVE A No Project/No Build	ALTERNATIVE B Alternate Site Plan	ALTERNATIVE C Reduced Library
NOISE				
<i>Would the project result in exposure of persons to or generation of noise in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</i>	LTS/M	Less	Similar	Similar
<i>Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</i>	SU	Less	Similar	Similar
<i>Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</i>	LTS	Less	Similar	Similar
<i>Would the project result in substantial temporary or periodic increase in ambient noise levels in the project vicinity?</i>	SU	Less	Similar	Similar
<i>Would the project result in exposure of people residing or working at the project site to excessive noise levels from a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public or public use airport?</i>	NI	Similar	Similar	Similar
<i>Would the project result in exposure of people residing or working at the project site to excessive noise levels from a private airstrip?</i>	NI	Similar	Similar	Similar
TRANSPORTATION/TRAFFIC				
<i>Would the project conflict with the Town of Tiburon Level of Service standards for signalized intersections or unsignalized intersections?</i>	LTS	Less	Similar	Similar
<i>Would the project result in impacts to regional roadways (Tiburon Boulevard), by resulting in additional project traffic that would deteriorate the LOS from LOS D to E during the P.M. peak hour period?</i>	LTS	Less	Similar	Similar
<i>Would the project result in project traffic or roadway design results in a substantial increase in unsafe circulation conditions?</i>	LTS	Less	Similar	Similar
<i>Would the project result in conflicts with adopted policies and plans supporting alternative transportation?</i>	LTS	Less	Similar	Similar

**Table VI-1
Comparison of Alternatives to the Proposed Project**

ENVIRONMENTAL ISSUE AREA	PROJECT	ALTERNATIVE A No Project/No Build	ALTERNATIVE B Alternate Site Plan	ALTERNATIVE C Reduced Library
<i>Result in inadequate parking capacity?</i>	SU	Less	Similar	Similar
<i>Signal Warrant Analysis</i>	LTS/M	Less	Similar	Similar
Key: <i>S</i> = Significant Impact <i>LTS</i> = Less-than-Significant Impact <i>LTS/M</i> = Less-than-Significant Impact with Mitigation				

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