BENICIA HISTORIC PRESERVATION REVIEW COMMISSION

CITY HALL COMMISSION ROOM

REGULAR MEETING AGENDA

Thursday, December 17, 2009

6:30 P.M.

I. OPENING OF MEETING

A. **Pledge of Allegiance**
B. **Roll Call of Commissioners**
C. **Reference to Fundamental Rights of Public -** A plaque stating the Fundamental Rights of each member of the public is posted at the entrance to this meeting room per Section 4.04.030 of the City of Benicia's Open Government Ordinance.

II. AGENDA CHANGES AND DISCUSSION

III. OPPORTUNITY FOR PUBLIC COMMENT

A. **WRITTEN**

B. **PUBLIC COMMENT**

IV. CONSENT CALENDAR

Consent Calendar items are considered routine and will be enacted, approved or adopted by one motion unless a request for removal for discussion or explanation is received from the Historic Preservation Review Commission or a member of the public by submitting a speaker slip for that item.

*Any Item identified as a Public Hearing has been placed on the Consent Calendar because it has not generated any public interest or dissent. However, if any member of the public wishes to comment on a Public Hearing item, or would like the item placed on the regular agenda, please notify the Community Development Staff either prior to, or at the Historic Preservation Review Commission meeting, prior to the reading of the Consent Calendar.

A. Approval of Agenda

B. Approval of Minutes of Joint Planning Commission Meeting of October 22, 2009

C. Approval of Minutes of November 19, 2009

V. REGULAR AGENDA ITEMS

A. RECONSIDERATION OF A DESIGN REVIEW REQUEST TO MODIFY EXISTING WINDOWS ON THE EAST AND SOUTH FACADES OF A CONTRIBUTING BUILDING LOCATED AT 464 EAST H STREET

09PLN-00086 Design Review

464 East H Street, APN: 80-171-15

PROPOSAL:

The applicant is requesting reconsideration of a previously approved window design at 464 East H Street. The Historic Preservation Review Commission approved modifications to the windows on the east and south facades at the November 19, 2009 meeting.

Recommendation: Approve the reconsideration of a design review request to modify the existing windows on the east and south facades of a contributing at 464 East H Street, based on the findings and conditions of approval set forth in the proposed resolution.

B. UNION PACIFIC RAILROAD AUTO LOADING FACILITY DESIGN REVIEW

09PLN-87 Design Review
1140 Bayshore Road, APN: 080-030-020

PROPOSAL:

The applicant requests approval of an auto loading facility located at 1140 Bayshore Road. This project consists of relocating fencing and adding six lighting poles and fixtures along the proposed railroad track.

Recommendation: Approve design review request for a new auto loading facility which involves relocating fencing and adding six lighting poles and fixtures along new proposed railroad tracks located at 1140 Bayshore Road, based on the findings and conditions of approval set forth in the proposed resolution.

C. **LOWER ARSENAL MIXED USE SPECIFIC PLAN - DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)**
City of Benicia

PROJECT LOCATION: The project site is located in the City of Benicia in Solano County. The project site consists of approximately 50 acres east of Downtown Benicia, and is a portion of Benicia's former Arsenal known as the Lower Arsenal. The site is generally bounded by lands adjoining I-780 on the north, lands adjoining I-680 on the east, Port of Benicia land and the Carquinez Strait on the south, and residential neighborhoods extending into downtown Benicia on the west.

BRIEF DESCRIPTION OF PROJECT: The proposed project includes implementation of a Specific Plan for the Lower Arsenal site, which is designated for mixed uses in the Benicia General Plan. The Specific Plan covers four distinct zones, each of which exhibits a unique physical character. The Specific Plan would implement a form-based code to shape future development on the project site, with primary emphasis on the physical form and character of new development. After build-out of the Specific Plan, the area would contain approximately 741,865 square feet of mixed uses, 22 residential units, and 6.39 acres of open space. The Specific Plan area currently contains approximately 525,000 square feet of mixed uses. The Draft Specific Plan is available for public review at the City's Public Works & Community Development Department or on the City's website (www.ci.benicia.ca.us).

Recommended Action: Confirm, modify, and/or augment the August 2008 Planning Commission recommendation that the City Council certify the Environmental Impact Report and adopt the Lower Arsenal Mixed Use Specific Plan, including modification of Specific Plan Action 4.6.2 to prohibit granting of City permit for alteration of any structure in the Plan area more than 50 years old until the Lower Arsenal historic resource inventory has been updated.

VI. COMMUNICATIONS FROM STAFF

A. **MILLS ACT INSPECTIONS – Continued from November 19, 2009 –** At the October 22nd meeting, Commissioner Mang requested that the Commission be involved in the Mills Act inspection process. Staff and the Commission will discuss this request.

B. **PROFESSIONAL QUALIFICATIONS FOR CERTIFIED LOCAL GOVERNMENT**

As part of the Certified Local Government Annual Report, each Commissioner must complete a "Professional Qualifications" form. If a Commissioner meets specific professional requirements, additional information is required. Staff will distribute this form to all Commissioners. Forms must be completed no later than December 22nd.

C. UPCOMING AGENDA ITEMS

Staff will update the Commission on upcoming agenda items and the status of ongoing projects.

VII. COMMUNICATIONS FROM COMMISSIONERS

VIII. ADJOURNMENT

Public Participation

The Benicia Historic Preservation Review Commission welcomes public participation.

Pursuant to the Brown Act, each public agency must provide the public with an opportunity to speak on any matter within the subject matter jurisdiction of the agency and which is not on the agency's agenda for that meeting. The Historic Preservation Review Commission allows speakers to speak on agendized and non-agendized matters under public comment. Comments are limited to no more than 5 minutes per speaker. By law, no action may be taken on any item raised during the public comment period although informational answers to questions may be given and matters may be referred to staff for placement on a future agenda of the Historic Preservation Review Commission.

Should you have material you wish to enter into the record, please submit it to the Commission Secretary.

Disabled Access

In compliance with the Americans with Disabilities Act (ADA), if you need special assistance to participate in this meeting, please contact Valerie Ruxton, the ADA Coordinator, at (707) 746-4211. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Meeting Procedures

All items listed on this agenda are for Commission discussion and/or action. In accordance with the Brown Act, each item is listed and includes, where appropriate, further description of the item and/or a recommended action. The posting of a recommended action does not limit, or necessarily indicate, what action the Commission may take.

The Historic Preservation Review Commission may not begin new public hearing items after 11 p.m. Public hearing items, which remain on the agenda, may be continued to the next regular meeting of the Commission, or to a special meeting.

Pursuant to Government Code Section 65009; if you challenge a decision of the Historic Preservation Review Commission in court, you may be limited to raising only

those issues you or someone else raised at the Public Hearing described in this notice, or in written correspondence delivered to the Historic Preservation Review Commission at, or prior to, the Public Hearing. You may also be limited by the ninety (90) day statute of limitations in which to file and serve a petition for administrative writ of mandate challenging any final City decisions regarding planning or zoning.

Appeals of Historic Preservation Review Commission decisions that are final actions, not recommendations, are considered by the Planning Commission. Appeals must be filed in the Community Development Department in writing, stating the basis of appeal with the appeal fee within 10 business days of the date of action.

Public Records

The agenda packet for this meeting is available at the City Clerk's Office, the Benicia Public Library and the Community Development Department during regular working hours. To the extent feasible, the packet is also available on the City's web page at www.ci.benicia.ca.us under the heading "Agendas and Minutes." Public records related to an open session agenda item that are distributed after the agenda packet is prepared are available before the meeting at the Community Development Department's office located at 250 East L Street, Benicia, or at the meeting held in the City Hall Council Chambers. If you wish to submit written information on an agenda item, please submit to Gina Eleccion, Management Analyst, as soon as possible so that it may be distributed to the Historic Preservation Review Commission.

DRAFT

BENICIA HISTORIC PRESERVATION REVIEW COMMISSION

SPECIAL JOINT MEETING WITH
THE BENICIA PLANNING COMMISSION
CITY COUNCIL CHAMBERS

SPECIAL MEETING MINUTES
Thursday, October 22, 2009

6:30 P.M.

I. CALL TO ORDER – JOINT MEETING OF PLANNING COMMISSION AND HISTORIC PRESERVATION REVIEW COMMISSION

A. Pledge of Allegiance

B. Roll Call of Commissioners

Planning Commission:
Present: Commissioners Dean, Ernst, Syracuse and Chair Healy
Absent: Commissioners Bortolazzo and Sherry (excused). Commissioner Thomas arrived late at 6:55 pm.

Historic Preservation Review Commission:
Present: Commissioners Donaghue, Mang, McKee, Taagepera and Chair Haughey
Absent: Commissioners Crompton and White (excused)

Staff Present:
Charlie Knox, Public Works & Community Development Director
Lisa Porras, Senior Planner
Rhonda Corey, Senior Administrative Clerk
Heather McLaughlin, City Attorney

C. Reference to Fundamental Rights of Public - A plaque stating the Fundamental Rights of each member of the public is posted at the entrance to this meeting room per Section 4.04.030 of the City of Benicia's Open Government Ordinance.

II. AGENDA CHANGES AND DISCUSSION

A. Approval of Agenda

On motion of Commissioner Donaghue, seconded by Commissioner Mang, the agenda was approved by the following vote:

Planning Commission

Ayes: Commissioner Dean, Commissioner Ernst, Commissioner Ernst and Chair Healy
Noes: None
Absent: Commissioners Bortolazzo, Sherry and Thomas (arrived late at 6:55 pm)
Abstain: None

Historic Preservation Review Commission

Ayes: Commissioner Donaghue, Commissioner Mang, Commissioner McKee, Commissioner Taagepera and Chair Haughey
Noes: None
Absent: Commissioners Crompton and White
Abstain: None

III. OPPORTUNITY FOR PUBLIC COMMENT

A. WRITTEN

None.

B. PUBLIC COMMENT

None.

IV. PRESENTATIONS

A. REPORT FROM OPEN GOVERNMENT COMMISSION

Clare McFadden gave an Open Government Presentation to both Commissions.

V. PLANNING COMMISSION CONSENT CALENDAR

The Planning Commission Consent Calendar was continued to the meeting of November 12, 2009 due to Commissioners Dean and Ernst being absent at the last meeting and the absence of Commissioners Bortolazzo, Sherry and Thomas from tonight's meeting and the lack of a quorum.

A. Approval of Planning Commission Minutes of October 8, 2009

VI. HISTORIC PRESERVATION REVIEW COMMISSION CONSENT CALENDAR

Minutes from September 24, 2009 pulled with changes to item IV with the following addition:

Commissioner Donaghue nominated Commissioner Haughey as Chair and Commissioner Crompton as Vice Chair. Commissioner Crompton stated he would do it. Commissioner McKee reconsidered and stated that he would serve as Vice Chair.

Item VI (B) amended to reflect the following addition:
Staff noted that it did not find evidence of a wood porch originally, but made a recommendation based on other properties in town. Staff recommended adding language to indicate no evidence of porch.

On motion of Commissioner Donaghue, seconded by Commissioner Mang, the Historic Preservation Review Commission Consent Calendar with the above changes was approved by the following vote:

Ayes: Commissioners Donaghue, Mang, McKee, Taagepera and Chair Haughey
Noes:
Absent: Commissioners Crompton and White (excused)
Abstain:

A. Approval of Historic Preservation Review Commission Minutes of September 24, 2009
B. Approval of 2010 Meeting Schedule

VII. REGULAR AGENDA ITEMS

A. LOWER ARSENAL MIXED USE SPECIFIC PLAN - DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)

City of Benicia

PROJECT LOCATION: The project site is located in the City of Benicia in Solano County. The project site consists of approximately 50 acres east of Downtown Benicia, and is a portion of Benicia's former Arsenal known as the Lower Arsenal. The site is generally bounded by lands adjoining I-780 on the north, lands adjoining I-680 on the east, Port of Benicia land and the Carquinez Strait on the south, and residential neighborhoods extending into downtown Benicia on the west.
BRIEF DESCRIPTION OF PROJECT: The proposed project includes implementation of a Specific Plan for the Lower Arsenal site, which is designated for mixed uses in the Benicia General Plan. The Specific Plan covers four distinct zones, each of which exhibits a unique physical character. The Specific Plan would implement a form-based code to shape future development on the project site, with primary emphasis on the physical form and character of new development. After build-out of the Specific Plan, the area would contain approximately 741,865 square feet of mixed uses, 22 residential units, and 6.39 acres of open space. The Specific Plan area currently contains approximately 525,000 square feet of mixed uses. The Draft Specific Plan is available for public review at the City's Public Works & Community Development Department or on the City's website (www.ci.benicia.ca.us).

Recommended Action: Confirm, modify, and/or augment the August 2008 Planning Commission recommendation that the City Council certify the Environmental Impact

Report and adopt the Lower Arsenal Mixed Use Specific Plan, including modification of Specific Plan Action 4.6.2 to prohibit granting of City permit for alteration of any structure in the Plan area more than 50 years old until the Lower Arsenal historic resource inventory has been updated.

Adam Weinstein from LSA gave a presentation regarding the Draft EIR for the Lower Arsenal Mixed Use Specific Plan.

Commissioner Syracuse expressed concern about pollution and the Ozone Layer.
Adam Weinstein stated that toxic air contaminants are an issue addressed in the EIR.

Commissioner Taagepera questioned how noise is measured.
Adam Weinstein advised that the Leq Standard is used in the EIR in accordance with City regulations.

Charlie Knox gave an overview of the Lower Arsenal Mixed Use Specific Plan process.

He advised commissioners that there are two reasons for recirculating the noise and greenhouse gas sections of the EIR. The Port wants its noise study analyzed in the EIR and the City needs to follow direction from the Attorney General's Office to meet greenhouse gas emission reduction targets per Senate Bill AB32.

Staff believes the document is ready for approval by both Commissions. Residential / industrial compatibility remains the primary issue. The Planning Commission already recommended approval to City Council in August 2008. The City Council directed that another public workshop be held and a recommendation on the EIR be obtained from HPRC.

Commissioners had questions regarding the following issues: What considerations do developer applicants face in regard to zoning? Are permits going to be required? Are interior alterations subject to CEQA review? What is the current zoning for 1025 Grant Street and how long has the current zoning classification been in affect? For housing uses, is it currently zoned work/live? Could a deed restriction be put in place so tenants or residents could not complain about the Port operations? How will cross-contamination issues be addressed?

Charlie Knox addressed these questions. The top third of the Arsenal is zoned office, the middle third is general commercial, except for the 1025 Grant Street property. The area south of Grant Street is zoned planned development. Minor interior alterations are allowed without HPRC or CEQA review as long as the structural integrity of the building is not compromised the work complies with the Secretary of the Interior's Standards. Two options exist regarding housing and contamination issues: - a comprehensive characterization of the Plan area, or site-by-site analysis. The Army Corps of Engineers and DTSC have not yet been able to agree on a comprehensive process. The only feasible mitigation measure for the Environmental Impact Report is to allow individual property owners to perform their own analyses of issues of contamination and pay for any necessary

clean up. Charlie Knox agreed with HPRC Commissioner Taagepera's idea of requiring HPRC review for exterior alteration of all structures, instead of what she called a moratorium on alteration of all structures more than 50 years old.

The public hearing was opened.

Marilyn Bardet- 333 East K- Expressed concern regarding the hazards section. Asked where the record is to substantiate the claim by DTSC regarding full disclosure adequacy. She stated that the public has not been made aware of the details. She feels the DTSC and the Army Corps of Engineers need to get together and coordinate a clean up similar to the Tourtelot site clean up. Feels public health and safety are at risk and understands that funding is a problem. She stated that lead hazards, oil and ordinance will be a problem. Requests that the commissions recommended that Council ask that the Army be determined the primary responsible party. If others are determined to be responsible, maybe funding for clean up could be paid for by subsequent property owners. If the Department of Defense is the primary responsible party, the City of Benicia needs to solicit political support for DTSC to come in and fix the problem.

Robert Whitehead- 755 West 6th- Stated he is 50% owner of the "8-acre" vacant lot on the ridge of the Lower Arsenal area. Stated that regarding the issue of contamination, $80,000 has already been spent on that site with a report finding the area clean with exception of one small area near the tennis court. Supports approval of the EIR. Said it is about time to act on this plan, develop the area and stop putting it off. Feels that a handful of people continue to delay the project. Recommends City approval for housing purposes.

Andy Siri- 716 West H- Stated he owns 2 developed properties in the Industrial Park and is a member of the Benicia Industrial Park Association. Feels that the lower area of the Arsenal needs something but is not convinced that housing is the answer. His main concern is the Port as it is vital to the Industrial Park and feels no restrictions should be placed on the Industrial Park. Believes noise should not be a concern as it is a pre-existing condition. Prospective buyers should be asked to sign a waiver preventing them from filing complaints

Dana Dean- 835 First- She stated that her submittal of written comment was not intended to be "new" information. Noise measurement is still an issue. The fact that noise averaging was not used, does not mean the conclusions are invalid. She asked that the Commission not recommend adoption of the Plan. She stated that housing might run businesses out. Mere disclosure of potential noise issues is not sufficient as it only protects the seller, not the City.
If Commissioners recommend adoption of the plan, she requested:

- Limit residential to work/live
- Require deed restrictions and nonsuit waiver
- Include an ordinance requiring real estate disclosures

Belinda Smith- In regard to the response to comments in the Draft EIR she believes it is not thorough enough as there would be significant impact to air quality. She is concerned

about design standards not being in line with the Secretary of Interior's standards. Requested that the district be evaluated as a whole. Would like to see an analysis of the impact the historic areas may have on each other which is not included in the plan. Asked that a response to comments be done on the re-circulated sections. Charlie Knox advised her that it was already done on July 22, 2008.

Bonnie Silveria- 641 West I- Stated that when it was first called the Lower Arsenal there was no industry there. Officers' residences were above Adams Street. When she was on the Planning Commission she asked that residences not be built to the West side of Polk Street south of Grant Street, as reflected in the Draft Plan. She thinks industry can be compatible with housing above Grant Street. Stated the lower area is of concern due to weaponry and industry that previously existed.

Mark Hajjar- 1025 Grant Street- Stated that the Commission can provide a vision of the area. The property he owns used to have barracks and he doesn't think that anyone would have been so careless as to leave munitions behind. A Phase One Study found nothing to indicate that a Phase Two Study would be required. The current zoning on Grant Street allows work-live and commercial businesses. He stated this part of the city is not operating at full capacity. Looking at the big picture, there is not much of a difference between work-live and live-work. Housing units would bring vitality to the area. Requests that the EIR and the Lower Arsenal Specific Plan be approved.

Jon Van Landschoot-175 West H- Feels the Plan is incomplete and there are a lot of incompatibilities with the General Plan. Stated that the historic context needs to be preserved. Questioned whether or not there will be full disclosure regarding toxics. Stated that the City of Benicia is financially solvent because of the Industrial Park and the Port. Feels houses don't create value. Factories do and warehousing slightly. Said that in the downtown area we do not have to be worried about toxics. In his opinion, it would be unfair to approve the plan due to incompleteness. Suggested following the clean up procedure used for Tourtelot.

The public hearing was closed.

Commissioner Comments:

Commissioner Ernst questioned whether or not there might be more retail opportunities in the area. Doesn't see any need to raise rents on Tyler Street. Feels there is not sufficient economics to promote a thriving artist community but would like to see it. Had questions about DTSC being the lead agency. Envisions the area becoming similar to Cannery Row in Monterey. Is it possible for the plan to be broken down into smaller pieces to consider individually? Historic integrity needs to be a priority.

Commissioner Dean stated that when the Army was there it was industrial land. Historically, it was not typically residential family units. Feels the push for more residential development is financially driven. Would not want to jeopardize the Port. Culturally, an artist community is important. Integrity of the Historic District needs to be

preserved and the number one priority. Feels the plan overshadows that. If developed, it could be detrimental to cultural and artist community as well as historic integrity in the district as a whole. Feels the City and the community have neglected the area. The area needs revitalization but not by the current plan. Parts of the original EIR need to address mitigation measures for land use, cultural, biology prior to an application instead of on a case-by-case basis. Criteria needs to already be in place.

Commissioner Thomas stated that the clean up issue is important but the historic uses are most important. Feels work/live needs to be supported.

Commissioner Syracuse feels the plan needs to include specific criteria with regard to historic integrity for the future. How it looked in the past and how it will look in the future.

Planning Commission Chair Healy expressed the desire for Valero representatives to show up to the meetings instead of sending comments in letterform. Rejects the idea that commenters are anti-development or anti-City. Has concerns about "developer roulette" and believes that the City owes the community a better plan than that. Expressed concern that there may be a big price tag for clean up by the Army as it is unknown what is hidden underneath the ground. Questioned whether or not we should incorporate additional measures into the EIR in regard to contaminants.

Commissioner Donaghue expressed concern about residential uses not being compatible with the General Plan and that the General Plan is inconsistent by allowing residential in industry's back yard. Said that artists need to put up with noise from the Port. There is too much uncertainty regarding residential housing that the General Plan does not adequately address. Would like to exclude interior changes in HPRC's purview. The Plan needs to simplify things and doesn't in its current form.

Commissioner Taagepera feels that the Historic Preservation Review Commission is at a disadvantage due to not being consulted on the original EIR. She would have preferred a workshop on the issue. She stated that there are too many outstanding issues and more specific mitigation measures need to be developed and asked if this is a program level EIR which Charlie Knox confirmed). She also questioned whether there would be design standards, to which Charlie Knox responded the Specific Plan, includes architectural design standards. She also questioned if the EIR addresses the ratio of historic to non-historic buildings. Charlie Knox stated that the plan did not specifically control the ratio, but the vision was for several large buildings on the Ridge.

Commissioner Healy asked if the Arsenal Historic Conservation Plan could be included in the Arsenal Specific Plan. Charlie Knox advised that unfortunately they needed to be separate due to State requirements for conservation plans.

City Attorney Heather McLaughlin asked Commissioners if they have all received the full EIR. Charlie Knox responded that they should have all received the document. Commissioner Taagepera stated that she believed she had not received a hard copy and had only reviewed it online. Commissioner Donaghue stated that he does have a copy. Heather

McLaughlin advised Commissioners that they could not make a decision on a document that they have not adequately reviewed. If not, the item needs to be continued. Commissioner Donaghue stated that he has adequately reviewed the document. Commissioner Mang did review the document and feels comfortable making a decision. HPRC Chair Haughey stated that she is not comfortable with a decision due to lack of adequate review of the document.

Commissioner Mang asked when DTSC would get involved. Charlie Knox advised the earliest would be July. Commissioner Mang expressed interest in knowing more about the difference between Phase I and Phase 2 studies.

HPRC Chair Haughey stated that contamination needs to be addressed before housing issues. Agrees with other Commissioners that the site needs to have a clean up procedure similar to the Tourtelot clean up. Feels historic review is inadequate. Stated that previously only three Planning Commissioners supported the plan.

Commissioner Donaghue stated that ceiling heights listed in the plan need adjustments.

Planning Commission Motion

On motion of Commissioner Ernst, seconded by Commissioner Syracuse the item was continued to the next meeting of each Commission separately to recommend to the City Council to have DTSC become lead agency on clean up and to clarify the historic integrity of the area by the following vote:

Ayes: Commissioners Dean, Ernst, Syracuse and Chair Healy
Noes: Commissioner Thomas
Absent: Commissioners Bortolazzo and Sherry
Abstain: None

HPRC Motion

There was no motion or second recorded and the item was continued to the next meeting of each Commission separately to recommend to the City Council to have DTSC become lead agency on clean up and to clarify the historic integrity of the area by the following vote:

Ayes: Commissioners Donaghue, Mang, McKee, Taagepera and Chair Haughey.
Noes: None
Absent: Commissioners Crompton and White
Abstain: None

Planning Commission adjourned their portion of the meeting at 9:55 pm

Recess at 9:55 pm. Reconvened at 10:01 pm.

ADJOURNMENT OF JOINT MEETING WITH PLANNING COMMISSION; CONTINUATION OF REGULAR MEETING OF HISTORIC PRESERVATION REVIEW COMMISSION

B. 127 FIRST STREET (TANNERY) – BAY TRAIL PUBLIC ACCESS
Design Review
127 First Street, APN: 089-244-050

PROPOSAL:
Design review request of a new public access bay trail located along the waterfront and behind the existing building at 127 First Street.

Recommendation:
Approve the design of a new public access bay trail located along the waterfront and behind the existing building at 127 First Street, based on the findings and subject to the conditions listed in the proposed resolution.

Lisa Porras announced to the Commissioners that the item needs to be continued due to CEQA requirements. Ms. Porras provided an overview of the proposed trail.

Commissioners discussed questions they had about the project as follows: Lights along the Bay Trail, handrail dimensions, removal of construction debris, what type of rock may be used, will path be continued to Captain Blythers, are the benches going to be the same as those that already exist at 221 First, is the location of Shoreline protection in place and where exactly is the property line,

James Morgan – Applicant- will look into handrail issue. BCDC worked with the applicant to make sure continuity exists with 221 First Street.

Commissioner McKee feels design of the benches is nice and thinks that non-uniformity of the benches may be a nice touch.

On motion of Commissioner Donaghue, seconded by Commissioner Mang, the above item was continued without a resolution by the following vote:

Ayes:	Commissioners Donaghue, Mang, Taagepera, and Chair Haughey
Noes:	None
Absent:	Commissioners Crompton and White
Abstain:	Commissioner McKee

D. CITYWIDE HISTORIC CONTEXT STATEMENT – Formation of Ad Hoc Committee
City of Benicia

PROPOSAL
The City of Benicia has received Certified Local Government (CLG) grant funds for the development of a historic context statement. The City has entered into a contract with Page

& Turnbull to prepare this context statement. As part of the matching funds for the grant, in-kind staff and volunteer services have been committed to the consultant for research and public outreach purposes.

Recommendation: Authorize formation of a committee consisting of two Commission members, two Benicia Historical Society representatives, and one City staff member to perform research on behalf of the consultant and staff regarding the development of a historic context statement, and appoint 2 members of the Commission to this committee.

Commissioners nominated Commissioner Taagepera and Commissioner Donaghue. .

On motion of Commissioner Mang, seconded by Commissioner McKee, formation of the committee and the above nominations were approved by the following vote:

Ayes:	Commissioners Donaghue, Mang, Taagepera, and Chair Haughey
Noes:	None
Absent:	Commissioners Crompton and White
Abstain:	None

VIII. COMMUNICATIONS FROM STAFF

Charlie Knox advised Commissioners that the Intermodal Workshops scheduled for Tuesday October 27 and Wednesday November 18, 2009 are being postponed while staff is in the process of exploring additional design and site options.

IX. COMMUNICATIONS FROM COMMISSIONERS

Commissioner Taagepera asked a question regarding Mills Act property taxes seeming to vary from year to year. She was advised that the taxes are re-evaluated year to year by the Solano County Assessor's Office and that the number will vary from year to year. Demand for rental units has increased property taxes.

Commissioner Mang suggested that members of the Commission go out on field visits with staff to meet homeowners to help them understand the process.

Chair Haughey advised that it would need to be agendized and discussed at the next HPRC meeting.

X. ADJOURNMENT

Chair Haughey adjourned the meeting at 10:30 pm.

DRAFT

BENICIA HISTORIC PRESERVATION REVIEW COMMISSION

CITY HALL COMMISSION ROOM

REGULAR MEETING MINUTES

Thursday, November 19, 2009
6:30 P.M.

I. OPENING OF MEETING

A. Pledge of Allegiance
B. Roll Call of Commissioners

Present: Commissioners Crompton, Donaghue, Mang, McKee, Taagepera, White and Chair Haughey
Absent: None

Staff Present:
Amy Million, Consulting Planner
Raquel Walsh, Recording Secretary
Sharon Williams, Development Services Technician

C. Reference to Fundamental Rights of Public - A plaque stating the Fundamental Rights of each member of the public is posted at the entrance to this meeting room per Section 4.04.030 of the City of Benicia's Open Government Ordinance.

II. AGENDA CHANGES AND DISCUSSION

Commissioner Mang requested to continue agenda item VI-B, Mills Act Inspections, to the next meeting. On motion of Chair Haughey, seconded by Commissioner Donaghue, and by the consensus of commissioners, this item was continued to December 17, 2009.

III. OPPORTUNITY FOR PUBLIC COMMENT

A. WRITTEN
None.

B. PUBLIC COMMENT
None.

IV. CONSENT CALENDAR

Commissioner White requested item IV-B, 660 West Second Street- Design Review, be removed from the Consent Calendar for discussion.

On motion of Commissioner White, seconded by Commissioner by Mang, the Consent Calendar, with the removal of item IV-B, was approved by the following vote:

Ayes:	Commissioners Crompton, Donaghue, Mang, McKee, Taagepera, White and Chair Haughey
Noes:	None
Absent:	None
Abstain:	None

A. Approval of Agenda

B. 660 WEST SECOND STREET (172 WEST G STREET) - DESIGN REVIEW FOR RECONFIGURATION OF THE DECK ON THE WEST SECOND STREET FAÇADE

09PLN-84 Design Review
660 West Second Street (172 West G Street), APN: 89-115-07

PROPOSAL:

The applicant requests design review approval to redesign the existing deck located on the west façade of an existing two-story non-contributing building located within the boundaries of the Downtown Historic Conservation District. The existing deck, which runs uninterrupted the entire length of the building, will be redesigned into two individual decks. Each deck will serve two apartment units.

Commissioner Taagapera recused herself from review and discussion of this project and departed the meeting room.

Recommendation: Approve design review request to reconfigure the existing deck to the four apartment units that front on the West Second Street alley, at 660 West Second Street (172 East G Street), based on the findings and conditions of approval set forth in the proposed resolution.

Amy Million, Consulting Planner, gave an overview of the project. Commissioner McKee posed a question to the property owner regarding the spacing of the 2X2's forming the pickets and 4X4 spacing on the deck. The property owner explained that the 22 foot deck would be divided accordingly. Commissioners McKee and Donaghue further discussed and assisted the property owner with more specific spacing dimensions of the deck

RESOLUTION NO. 09-16 (HPRC) - A RESOLUTION OF THE HISTORIC PRESERVATION REVIEW COMMISSION OF THE CITY OF BENICIA APPROVING DESIGN REVIEW TO REDESIGN THE EXISTING DECK ALONG THE WEST SECOND STREET FAÇADE OF THE APARTMENT COMPLEX LOCATED AT 660 WEST SECOND STREET (172 WEST G STREET) (09PLN-84)

On motion of Commissioner Donaghue, with the addition of a condition that states the support posts be equally spaced, seconded by Commissioner McKee, the above Resolution was adopted by the following vote:

Ayes:	Commissioners Crompton, Donaghue, Mang, McKee, White and Chair Haughey
Noes:	None
Absent:	None
Abstain:	Commissioner Taagepera

V. REGULAR AGENDA ITEMS

A. 464 EAST H STREET - DESIGN REVIEW TO MODIFY THE EXISTING WINDOWS, REMOVE AN EXISTING DOOR, ADD A NEW WINDOW AND REPLACE AN ENTRY DOOR

09PLN-86 Design Review
464 East H Street, APN: 80-171-15

PROPOSAL:
The applicant requests design review approval to replace and add windows on the east elevation, remove one window and one door on the south elevation with one new three-part window and replace the entry door on the recessed portion of the front elevation. The building is a contributing building to the Downtown Historic District, Eastern Residential Area.

Recommendation: Approve design review request to modify the existing windows, rear door and replace an entry door of the contributing building located at 464 East H Street, based on the findings and conditions of approval set forth in the proposed resolution.

Amy Million, Consulting Planner, gave an overview of the project.

The Commissioners discussed several aspects of the proposed window modifications. Commissioner Donaghue inquired whether or not the existing windows were double or single-paned. The homeowner indicated that they were single-paned. Commissioner Donaghue cited an error in the staff report and found the drawing to be incorrect. Commissioner McKee inquired about the grid pattern of the windows shown on the drawings.

The homeowner explained that he wanted to maintain a uniform look, and the windows shown on the drawing are not to scale. Commissioners Donaghue and Chair Haughey were concerned with the age of the current windows as well as the overall aesthetics of the replacement windows. Commissioners discussed the location of the windows and Commissioners Donaghue and White indicated the windows could not be seen from the sidewalk.

Further discussion included retaining the home's historical defining features, the Commission's jurisdiction over such changes, height of windows in relation to appliances and replacement window type. Commissioner Mang assisted fellow Commissioners as well as the homeowner with a suggestion of a specific window dimension and type of 2'6"

x 3'6" that would satisfy the needs of the homeowner as well as maintain the historical look of the home. The homeowner also indicated that the door would not be replaced, and he will have a carpenter repair the existing door to make true.

Commissioners requested the following modifications:

Condition No. 5 shall be modified to say: The two new windows on the east façade shall be 3ft 6in tall by 2ft 6in wide windows. The windows shall be two over two, wood clad, double hung windows, JELD-WEN TCD Traditional Plus Premium brand as proposed or equivalent.

Condition No.6 shall be modified to say: The new 3-in 1 window or 3 individual windows in the same design on the south façade shall be 8ft x 3ft windows. The design can also be for 2 windows with existing door. The windows shall be two over two, wood clad, double hung windows, JELD-WEN TCD Traditional Plus Premium brand as proposed or equivalent.

Condition No. 7 should be replaced with: The window trim for all new windows must be compatible with the trim of the existing house.

RESOLUTION NO. 09-17 (HPRC) - A RESOLUTION OF THE HISTORIC PRESERVATION REVIEW COMMISSION OF THE CITY OF BENICIA APPROVING DESIGN REVIEW TO ADD A NEW WINDOW AND REPLACE AN EXISTING WINDOW ON THE EAST FAÇADE, MODIFY THE EXISTING WINDOW AND DOOR ON THE SOUTH FAÇADE OF THE RESIDENTIAL BUILDING LOCATED AT 464 EAST H STREET (09PLN-86)

On motion of Commissioner Crompton, seconded by Commissioner White, the above Resolution was adopted by the following vote:

Ayes:	Commissioners Crompton, Donaghue, Mang, McKee, Taagepera, White and Chair Haughey
Noes:	None
Absent:	None
Abstain:	None

B. 721-727 FIRST STREET (IOOF) – CONSULTANT EVALUATION
09PLN-01 APN: 089-244-050

PROPOSAL:
In response to the Commission's request, a consultant was hired to evaluate the historic integrity of the IOOF Hall located at 721-727 First Street.

Recommendation: Review and discuss the consultant evaluation prepared by Urbana Preservation & Planning.

Amy Million, Consulting Planner gave a brief overview of the evaluation.

Commissioners discussed the evaluation. Commissioner Taagepera found problems with the report, specifically with the conclusions, recommendations, and an error in the memo on page three of the document, noting that the project was not presented to the HPRC for review. Additionally, she did not agree with the emergency status of the project or how the repair was conducted. She believes that staff did not have the authority to make a decision without further review. Commissioner Taagepera requested that staff come back with definition of "emergency and repair". Other Commissioners agreed, and Chair Haughey requested a future agenda item be added for this issue. Commissioner Crompton added that verbiage should be written for future commissioners. Commissioners asked that Amy give clarification and create a definition of procedures as well.

VI. COMMUNICATIONS FROM STAFF

A. LOWER ARSENAL HAZARDS UPDATE – At its November 17, 2009 regular meeting, the City Council will discuss hazards investigation and, if necessary, cleanup of the former Benicia Arsenal, with priority given to the Draft Lower Arsenal Mixed Use Specific Plan area. Staff will provide the Commission and public with an update from that meeting.

Amy Million, Consulting Planner provided a verbal update from the November 17th City Council meeting.

Commissioners Mang and White agreed that discussion should continue at a future meeting as all of the Commissioners did not have the opportunity to read the related documents. Commissioner Taagepera indicated that she would like to conduct a workshop to discuss details and Commissioner White suggested the next meeting could be a workshop format. Commissioners expressed interest in having a workshop at their next meeting.

B. MILLS ACT INSPECTIONS – At the October 22nd meeting, Commissioner Mang requested that the Commission be involved in the Mills Act inspection process. Staff and the Commission will discuss this request.

This item was continued to December 19, 2009.

VII. COMMUNICATIONS FROM COMMISSIONERS

Commissioner Haughey asked that she replace Pat Donaghue as the representative on the Historic Context Committee. After a brief discussion, Commissioner Donaghue agreed to have Chair Haughey replace him and resigned. Commissioner Donaghue stated his resignation and Chair Haughey appointed herself to the position. Amy Million gave an informal approval. This will be agendized on the Consent Calendar of the December meeting for confirmation.

Commissioner McKee discussed starting a list of revisions for the downtown Mixed Use Master Plan and Chair Haughey requested revision items are agendized.

Commissioner Taagepera would like an update from staff regarding priority list of projects.

VIII. ADJOURNMENT

Chair Haughey adjourned the meeting at 8:18pm

Public Works & Community Development Department
MEMORANDUM

Date: December 10, 2009
To: Historic Preservation Review Commission
From: Amy Million, Consulting Planner
Re: 464 East H Street, Design Review Approval

The applicant is requesting a reconsideration of the previously approved design review request to modify the windows of a contributing building in the Downtown Historic District. The Commission originally approved the request during the November 19, 2009 meeting and adopted Resolution 09-17.

The applicant is specifically requesting that conditions of approval 5 and 6 be modified to allow a different grid pattern and/or window dimensions.

In order to provide clarity to the applicant's request, staff has prepared an amended resolution which is attached to this memorandum. The requested modifications are shown in a strikeout format. The requested deletions have been struck-out and the additions are shown as underlined and bold.

Should the Commission decide to forego the attached resolution and uphold their original decision, staff requests that a motion is made to this effect so that a new appeal period is established.

Attachments:

- Applicant's Letter Dated 12/7/09 with attachments
- Proposed Amended Resolution

APPLICANT'S LETTER
DATED 12/7/09

RECEIVED
DEC - 9 2009
CITY OF BENICIA
COMMUNITY DEVELOPMENT

Dec. 7, 2009
Richard and Anne DeGraffenreid
464 East H street
Benicia, CA. 94510

Ref # HPRC resolution # 09-17

Dear Mr.Knox

This letter is in reference to HPRC resolution # 09-17. (Kitchen windows)

Living at the same address, raising a family and seeing all the changes over 27 years is one of the things that makes Benicia such a great place to live. Anne and I would like to extend our appreciation to all the board members for their time and comments .

We also agree with the board's desire for more rectangular windows. Unfortunately, we disagree with the board's mandate of a grid pattern of 2 over 2, which introduces a new and additional grid pattern to our home and also changes a previous HPRC ruling. We therefore respectfully suggest that the ruling of resolution # 09-17 was arbitrary.

In 1996 we received the HPRS board's approval to add 3 new dormer windows and replace 2 old windows. (please see attached building permit) That board mandated a 4 over 4 grid pattern,on windows 2.6 x 3.0 / 3.6 (Please see attached photos) We feel that continuing that mandate is in the best interest and spirit of the HPRC ruling.

Therefore,we would like to request to install:

Qty of 2) East side: Grid change only. The HPRC approved size 2'.6" wide x 3'6" high windows, but with 4 over 4 grids instead of the 2 over 2 that was approved by the HPRC. Please see attached window specifications.

Qty of 1) South side: Change in grid and height. 8'.0 wide x 3'.6" high.(6" higher in height than the approved 3') with 4 over 4 grids every 2.6' section instead of the HPRC approved 2 over 2 grid pattern. Please see attached window specifications.

We are striving to stay consistent with the HPRC ruling dated 1996 and hope that you will allow us to do so.

Once again, thanks to everybody on the HPRC and thank you for your time on this matter.

Sincerely,

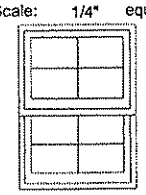
R DeGraffenreid

Anne DeGraffenreid

ITEM FRAME SIZE	LOCATION	PRODUCT CODE DESCRIPTION	UNIT PRICE	QTY	TOTAL PRICE
			$ 1,960.02		$ 1,960.02
0003		MANUFACTURER: JELD-WEN Wood Windows & Patio Doors		2	

Product Dimensions:
Rough Opening: 2' 6" x 3' 6"
Frame: 2' 5 1/4" x 3' 5 1/4"
Sash Opening: 2' 3 7/8" x 3' 3 1/4"

Scale: 1/4" equals 1'



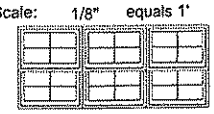
Book Code: TCD-Custom Size
Exterior Finish: Aluminum Clad Exterior with AuraLast Wood
Product: Double Hung Windows
Product Line: Tradition Plus - Premium Series
Sash Type: Standard
Product Configuration: Single Unit
Exterior Color: Brilliant White
Exterior Trim: Integral Nailing Fin
Interior Finish: Primed
Jambliner Color: White Jambliners
Jamb Depth: 4 9/16"
Grille: Colonial
Grille Pattern: 2W2H
Grille Type: 7/8" SDL w/ Permanently Applied Interior Wood Grille & Gray Anodized GBG
Grille Color: Brilliant White
Glass Type: Dual Coat Low-E with Argon
High Altitude Glass: None
Preserve - Protective Film Reduces Clean-up Glass
Neat Glass
Screen Type: BetterVue Mesh Screen(s)
Screen Frame Color: Brilliant White
Hardware Type: Cam Lock(s)
Hardware Color: White
Double Hung Hardware: Block & Tackle Balance, Tilt Latch
Egress: Does Not Meet Egress
Finger Plow: With Finger Plow(s)
Order Delivery: Store Delivery
***Product meets requirements for residential federal tax credit in
replacement application.***
*** A volume discount has been applied to this unit. ***
*** Original Price (1320.86) - Volume Discount = Discount Price (1223.02) ***

Base Price: TCD2948	$	295.01
Custom Frame Width	$	72.62
Custom Frame Height	$	72.62
Primed Interior	$	17.75
(1) Special Size : Colonial Brilliant White 7/8" SDL w/ Permanently Applied Interior Wood Grille & Gray Anodized GBG [2 x 2 / 2 x 2]	$	112.33
(1) Special Size : Dual Coat Low-E Glass	$	20.72
(1) Special Size : Neat Glass	$	8.36
(1) Special Size : Custom Size Screen(s)	$	12.10

ITEM FRAME SIZE	LOCATION	PRODUCT CODE DESCRIPTION	UNIT PRICE	QTY	TOTAL PRICE
0001		MANUFACTURER: JELD-WEN Wood Windows & Patio Doors		1	

Product Dimensions:
Rough Opening: 8' 0" x 3' 6"
Frame: 7' 11 1/4" x 3' 5 1/4"
Sash Opening: 2' 6 3/8" x 3' 3 1/4"
Flanker Frame: 2' 7 3/4" x 3' 5 1/4"

Scale: 1/8" equals 1'



Book Code: TCD-Custom Size
Exterior Finish: Aluminum Clad Exterior with AuraLast Wood
Product: Double Hung Windows
Product Line: Tradition Plus - Premium Series
Sash Type: Standard
Product Configuration: Triple Unit
Exterior Color: Brilliant White
Exterior Trim: Integral Nailing Fin
Interior Finish: Primed
Jambliner Color: White Jambliners
Jamb Depth: 4 9/16"
Grille: Colonial
Grille Pattern: 2W2H
Grille Type: 7/8" SDL w/ Permanently Applied Interior Wood Grille & Gray Anodized GBG
Grille Color: Brilliant White
Glass Type: Dual Coat Low-E with Argon
High Altitude Glass: None
Preserve - Protective Film Reduces Clean-up Glass
Neat Glass
Screen Type: BetterVue Mesh Screen(s)
Screen Frame Color: Brilliant White
Hardware Type: Cam Lock(s)
Hardware Color: White
Double Hung Hardware: Block & Tackle Balance, Tilt Latch
Egress: Does Not Meet Egress
Finger Plow: With Finger Plow(s)
Order Delivery: Store Delivery
***Product meets requirements for residential federal tax credit in
replacement application.***
*** A volume discount has been applied to this unit. ***
*** Original Price (2116.82) - Volume Discount = Discount Price (1960.02) ***

Base Price: TCD3348-3	$	998.58
Custom Frame Width	$	217.87
Custom Frame Height	$	217.87
Primed Interior	$	53.26
(3) Special Size : Colonial Brilliant White 7/8" SDL w/ Permanently Applied Interior Wood Grille & Gray Anodized GBG [2 x 2 / 2 x 2]	$	336.99
(3) Special Size : Dual Coat Low-E Glass	$	70.65
(3) Special Size : Neat Glass	$	28.50
(3) Special Size : Custom Size Screen(s)	$	36.30

CITY OF BENICIA PUBLIC WORKS DEPARTMENT

250 EAST " STREET, BENICIA, CALIFORNIA 9451 '07) 746-4230

BUILDING PERMIT

PERMIT NO.: BLD96-0374
APPLIED: 06/24/96
ISSUED: 06/26/96
EXPIRES: 06/26/98

CITY OF BENICIA
250 EAST "B" STREET
BENICIA, CA 94510
(707) 746-4230

SITE ADDRESS: 464 E H ST
ASSESSOR'S PARCEL NO.: 0089-171-15-0

PROJECT DESCRIPTION: Addition of three dormers on existing home. Includes outlets and plumbing.
Replace the foundation of the south end of the dwelling.

OWNER	CONTRACTOR	
RICHARD DERRAFFENREID 464 EAST H STREET BENICIA CA 94510		

FEES

Code	Amount	By	Date	Receipt
PLN2	$ 26.25	CHH	06/26/96	96-0374
ELE2	$ 25.00	CHH	06/26/96	96-0374
SMIP	$ 0.50	CHH	06/26/96	96-0374
BETH	$ 2.00	CHH	06/26/96	96-0374
FBN1	$ 83.25	CHH	06/26/96	96-0374

TOTAL: $ 137.00

NOTES

VALUATION: 2000

THE CITY OF BENICIA CALIFORNIA

Call by 4:30p.m. for next day inspection (707)746-4237

Bld.prel. Rev: 08/18/93

JOB SITE

PROPOSED AMENDED RESOLUTION

RESOLUTION NO. 09- (HPRC)

A RESOLUTION OF THE HISTORIC PRESERVATION REVIEW COMMISSION OF THE CITY OF BENICIA APPROVING DESIGN REVIEW TO ADD A NEW WINDOW AND REPLACE AN EXISTING WINDOW ON THE EAST FAÇADE, MODIFY THE EXISTING WINDOW AND DOOR ON THE SOUTH FAÇADE OF THE RESIDENTIAL BUILDING LOCATED AT 464 EAST H STREET (09PLN-86)

WHEREAS, Richard and Anne Degraffenreid, have requested design review approval to add a new window and replace an existing window on the east façade, modify the existing window and door configuration on the south (rear) façade of the contributing building located at 464 East H Street;

WHEREAS, the Historic Preservation Review Commission at a regular meeting on November 19, 2009 conducted a public hearing and reviewed the proposed project;

WHEREAS, during the Historic Preservation Review Commission meeting, the applicant requested that the project be revised to not include the replacement of the front entry door. The existing door will be refinished;

WHEREAS, the Historic Preservation Review Commission at a regular meeting on November 19, 2009 approved the proposed modifications and adopted Resolution 09-17;

WHEREAS, Richard and Anne Degraffenreid on December 7, 2009 submitted a letter requesting a reconsideration of the conditions of approval set forth in the adopted resolution; specifically that conditions 5 and 6 pertaining to the window dimensions and grid pattern be revised; and

WHEREAS, the Historic Preservation Review Commission at a regular meeting on December 17, 2009 conducted a public hearing and reviewed the request for reconsideration, which includes reasons by the applicant for reconsideration.

NOW, THEREFORE BE IT RESOLVED that the Historic Preservation Review Commission of the City of Benicia hereby finds that:

a) This project is Categorically Exempt under Section 15301 of the CEQA Guidelines, as a minor alteration to an existing structure.

b) The project is consistent with the Downtown Historic Conservation Plan Design Guidelines.

c) The project is generally consistent with the standards in the Downtown Mixed Use Master Plan.

BE IT FURTHER RESOLVED that the Historic Preservation Review Commission of the City of Benicia hereby approves the proposed project subject to the following conditions:

1. This approval shall expire two years from the date of approval, unless made permanent by the issuance of a building permits. The applicant may request, in writing, a one-year extension from the Public Works and Community Development Director.

2. The plans and maps submitted for approval and development of the site shall be in substantial compliance with the plans dated received "October 15, 2009" marked Exhibit "A" and consisting of 6 sheets on file in the Community Development Department.

3. Any alteration of the approved plans, including substitution of materials or changes in paint colors, shall be requested in writing and approved by the Public Works and Community Development Director or designee prior to changes being made in the field.

4. The project shall adhere to all applicable ordinances, standard plans, and specifications of the City of Benicia.

5. The two new windows on the east façade shall be 2'6" wide by 3'6" high windows. The windows shall be ~~two-over-two~~ **four-over-four**, wood clad, double-hung windows; JELD-WEN TCD Traditional Plus Premium brand as proposed or equivalent.

6. The new three-in-one window or three individual windows in the same design on the south façade shall measure 8' wide by ~~3'~~ **3'6"** high. The windows shall be ~~two-over-two~~ **four-over-four**, wood clad, double hung windows; JELD-WEN TCD Traditional Plus Premium brand as proposed or equivalent. Should the applicant decide to reduce the scope of work to two windows and the existing door that would be acceptable. The windows shall be two-over-two, wood clad, double hung windows; JELD-WEN TCD Traditional Plus Premium brand as proposed or equivalent.

7. The new window trim shall be compatible with the window trim of the rest of the house.

8. The applicant or permittee shall defend, indemnify, and hold harmless the City of Benicia or its agents, officers, and employees from any claim, action, or proceeding against the City of Benicia or its agents, officers, or employees to attack, set aside, void, or annul an approval of the Planning Commission, City Council, Public Works and Community Development Director's, Historic Preservation Review Commission or any other department, committee, or agency of the City concerning a development, variance, permit or land use approval which action is brought within the time period provided for in any applicable statute; provided, however, that the applicant's or permittee's duty to so defend, indemnify, and hold harmless shall be subject to the City's promptly notifying the applicant or permittee of any said claim, action, or proceeding and the City's full cooperation in the applicant's or permittee's defense of said claims, actions, or proceedings.

* * * * *

On motion of Commissioner , seconded by Commissioner , the above Resolution was adopted at a regular meeting of the Historic Preservation Review Commission on December 17, 2009 by the following vote:

Ayes:
Noes:
Absent:
Abstain:

_____
Toni Haughey, Historic Preservation Review Commission Chair

AGENDA ITEM
HISTORIC PRESERVATION REVIEW COMMISSION MEETING:
DECEMBER 17, 2009
REGULAR AGENDA ITEMS

DATE : December 8, 2009

TO : Historic Preservation Review Commission

FROM : Sharon Williams, Development Services Technician

SUBJECT : **DESIGN REVIEW FOR UNION PACIFIC RAILROAD AUTO LOADING FACILITY AT 1140 BAYSHORE ROAD**

PROJECT : 1140 Bayshore Road
09PLN-00087
APN 080-030-020

RECOMMENDATION:

Approve the Union Pacific Railroad Auto Loading Facility project located at 1140 Bayshore Road, based on the findings, and subject to the conditions listed in the proposed resolution and as discussed during the public hearing.

EXECUTIVE SUMMARY:

The applicant requests approval of an auto loading facility located at 1140 Bayshore Road. This project consists of relocating fencing and adding six light poles and fixtures along the proposed new railroad track.

BUDGET INFORMATION:

No budget impacts are anticipated.

ENVIRONMENTAL ANALYSIS:

Staff has determined that this project is Categorically Exempt under Section 15332 In-Fill Development Projects for the following reasons:

a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.
c) The project site has no value as habitat for endangered, rare or threatened species.
d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

e) The site can be adequately served by all required utilities and public services.

BACKGROUND:

Applicant/Owner: Mike Zucker, Union Pacific Railroad
General Plan designation/Zoning: Water Related Industrial (IW)
Existing use: Auto Loading Facility
Proposed use: Auto Loading Facility
Adjacent zoning and uses:
North: General Industrial (IG)
East: Water Related Industrial (IW)
South: Water Related Industrial (IW)
West: Water Related Industrial (IW)

SUMMARY:

A. Project Description
The parcel is located south of Bayshore Road between Taylor and Van Buren Streets and is zoned Water Related Industrial (IW). The site is flat and has a north-south orientation, with a primary frontage line along Bayshore Road between Taylor Street and Van Buren Street.

B. Project Analysis

Summary of Proposed Project
New Railroad Track
As part of the proposed auto loading facility, a new railroad track will be added to accommodate the increase of automobiles being loaded and unloaded from rail cars for the purpose of transportation. The new track will connect to the existing railroad tracks located adjacent to Bayshore Road. The new track will provide a reduction in convoy vehicles driving back and forth along Bayshore Road.

Fencing
Security fencing will be relocated and replaced along the perimeter of the auto loading facility to accommodate the new railroad track. Fence height will remain eight-foot tall, which is allowed per the Industrial Design Guidelines.

Light Towers
The proposed light towers consist of six new 70-foot tall light poles with a bank of three lights on the top. Each light will be individually aimed at the rail cars and loading pads for maximum efficiency. Each light consists of a 1,000-watt lamp and is equipped with a lamp shield mounted to the top of the light to direct the light toward the rail cars and loading pads to minimize light spillover. Additional lights are necessary to provide adequate lighting for employee safety as well as compliance with the recommendations of the American Railway Engineering and Maintenance-of-Way Association. Photo simulations are attached showing how the lights face away from the bay and provide minimal disruption to the skyline in both day and night time.

Project Review
Normally the Public Works & Community Development Director approves staff-level design review requests in the Water Related Industrial zoning district and has the authority to approve higher light poles in the I districts as well. In this instance, the director didn't feel comfortable approving this request since the outcome could be precedent setting and felt that the HPRC Commission should decide upon this important project decision.

1. Findings – The Historic Preservation Review Commission finds that:

   a) The proposed development is consistent with the objectives and provisions of Title 17 of the Benicia Municipal Code and the purposes of Water Related Industrial (IW) zoning district.

      The current use of the subject parcel will remain the same as an auto loading facility, which is an allowed use in the Water Related Industrial (IW) zoning district.

   b) The proposed location of the auto loading facility located at 1140 Bayshore Road and the proposed conditions of approval will be consistent with the General Plan and with Title 17 of the Benicia Municipal Code and will not be detrimental to the public health, safety, or welfare of persons residing or working in or adjacent to the neighborhood of the proposed use, nor detrimental to properties or improvements in the vicinity or to the general welfare of the city;

      The changes to the physical site layout will enhance worker safety and will not adversely affect the adjacent neighborhood. The use will remain the same; an auto loading facility.

   c) The proposed auto loading facility will comply with the provisions of Title 17 (Benicia Zoning Ordinance), including specific conditions required for use in the district in which it will be located.

      This approval is for design review purposes only.

C. Conclusion
Staff recommends approving the proposed auto loading facility, subject to the conditions of approval in the attached resolution.

FURTHER ACTION:

The Historic Preservation Review Commission's action will be final unless appealed to the Planning Commission within ten business days.

Attachments:
- Proposed Resolution
- Project Plans
- Simulation of Lights

PROPOSED RESOLUTION

RESOLUTION NO. 09- (HPRC)

A RESOLUTION OF THE HISTORIC PRESERVATION REVIEW COMMISSION OF THE CITY OF BENICIA APPROVING UNION PACIFIC AUTO LOADING FACILITY

WHEREAS, Union Pacific Railroad has requested Design Review approval for an auto loading facility at 1140 Bayshore Road; and

WHEREAS, the Historic Preservation Review Commission at a regular meeting on December 17, 2009, conducted a public hearing and reviewed the proposed project;

NOW, THEREFORE, BE IT RESOLVED THAT the Historic Preservation Review Commission of the City of Benicia hereby approves the auto loading facility; and

BE IT FURTHER RESOLVED THAT the Historic Preservation Review Commission finds that:

a) The proposed development is consistent with the objectives and applicable provisions of Title 17 of the Benicia Municipal Code and the purposes of Water Related Industrial (IW) zoning district.

   The current use of the subject parcel will remain the same as an auto loading facility, which is an allowed use in the Water Related Industrial (IW) zoning district.

b) The proposed location of the auto loading facility located at 1140 Bayshore Road and the proposed conditions of approval will be consistent with the General Plan and with Title 17 of the Benicia Municipal Code and will not be detrimental to the public health, safety, or welfare of persons residing or working in or adjacent to the neighborhood of the proposed use, nor detrimental to properties or improvements in the vicinity or to the general welfare of the city;

   The changes to the physical site layout will enhance worker safety and will not adversely affect the adjacent neighborhood. The use will remain the same; an auto loading facility.

c) The proposed auto loading facility will comply with the provisions of Title 17 (Benicia Zoning Ordinance), including specific conditions required for use in the district in which it will be located.

   This approval is for design review purposes only and would not impact or overwhelm the surrounding development.

BE IT FURTHER RESOLVED THAT the Benicia Historic Preservation Review Commission hereby approves the proposed project subject to the following conditions:

1. The plans submitted for the building permit shall substantially comply with the submitted site plan and elevations date stamped November 10, 2009, prepared by HDR Engineering, Inc. consisting of 49 sheets attached and on file with the Community Development Department, except as modified by the following conditions. Any change from the approved plans, including substitution of materials, shall be requested in writing for approval by the Community Development Department Director, or designee prior to changes being made in the field.

2. This approval shall expire two years from the date of approval, unless made permanent by the issuance of building permits and the commencement of construction. The applicant may request in writing a one-year extension from the Public Works & Community Development Director.

3. This project shall adhere to all applicable ordinances, plans, and specifications of the City of Benicia.

4. Prior to issuance of a building permit, the applicant shall obtain a grading permit for the installation of the railroad tracks and an encroachment permit to pothole and extend the sleeves on City-owned water and sewer mains if necessary.

5. The applicant shall pothole (small hole is made by either hand digging or using a vacuum method to expose location and depth of utility line underground) to locate underground utilities to extend the casing sleeves where necessary on water and sewer mains that cross under the railroad tracks.

6. Applicant will restrict the use of vibratory compaction equipment to minimize impacts during construction.

7. Applicant will be responsible to reimburse the City for any force main or water main breaks during the project construction period if determined to be caused by construction project.

8. The applicant shall ensure that all proposed improvements comply with all provisions of City of Benicia Stormwater Management and Discharge Control Ordinance. The applicant shall use BMP's to prevent sediments or pollutants from entering the storm drain system or watercourses. The impact of the proposed improvements on the storm drain system and watercourses shall be mitigated to the extent practicable.

9. The applicant or permittee shall defend, indemnify, and hold harmless the City of Benicia or its agents, officers, and employees from any claim, action, or proceeding against the City of Benicia or its agents, officers, or employees to attack, set aside, void, or annul an approval of the Historic Preservation Review Commission, Planning Commission, City Council, Community Development Director, or any other department, committee, or agency of the City concerning a development, variance, permit or land use approval which action is brought within the time period provided

for in any applicable statute; provided, however, that the applicant's or permittee's duty to so defend, indemnify, and hold harmless shall be subject to the City's promptly notifying the applicant or permittee of any said claim, action, or proceeding and the City's full cooperation in the applicant's or permittee's defense of said claims, actions, or proceedings.

* * * * *

On motion of Commissioner , seconded by Commissioner , the above Resolution was adopted by the Historic Preservation Review Commission of the City of Benicia at a regular meeting of said Commission held on December 17, 2009, by the following vote:

Ayes:
Noes:
Absent:

_____
Toni Haughey
Historic Preservation Review Commission Chair

PROJECT PLANS

PHOTOGRAPHS

AGENDA ITEM
HISTORIC PRESERVATION REVIEW COMMISSION
DECEMBER 17, 2009
REGULAR AGENDA ITEM

DATE : December 7, 2009

TO : Historic Preservation Review Commission

FROM : Damon Golubics, Principal Planner

SUBJECT : **LOWER ARSENAL MIXED USE SPECIFIC PLAN AND EIR**

RECOMMENDATION:

Confirm, modify, and/or augment the August 2008 Planning Commission recommendation that the City Council certify the Environmental Impact Report and adopt the Lower Arsenal Mixed Use Specific Plan, including modification of Specific Plan Action 4.6.2 to prohibit granting of City permit for alteration of any structure in the Plan area more than 50 years old until the Lower Arsenal historic resource inventory has been updated.

EXECUTIVE SUMMARY:

The Draft Environmental Impact Report (EIR) for the Draft Lower Arsenal Mixed Use Specific Plan has been completed. Public comment on the Plan and EIR has focused on whether historic resources will be adequately protected, and whether residential uses should be included in the Plan, given potential hazards in the area and compatibility issues with nearby industrial operations.

At its regular meeting of August 14, 2008, the Planning Commission recommended certification of the EIR and approval of the Specific Plan, with modification of Specific Plan Action 4.6.2 to ensure preservation of historic resources, including the Plan area as a whole and the National Register Historic Districts within it. The Historic Preservation Review Commission (along with the Planning Commission and Economic Development Board) recommended approval of the Draft Plan for Environmental Review on January 11, 2007, but has not yet commented on the Draft EIR.

The only single-family component of the Specific Plan is a 22-homes proposal at 1025 Grant Street, but the overall appropriateness of multifamily, live/work and mixed-use residences has also been a topic of commenter concern. Accordingly, the commissions may wish to make specific recommendations to Council regarding the appropriateness of various types of residential uses in the Plan area. (Work/live units have not been identified by commenters as potentially incompatible with existing nearby uses.)

Per the direction of the Historic Preservation Review Commission at the their joint meeting with the Planning Commission on October 22, 2009 (workshop), this matter was continued to a future meeting of each Commission separately to recommend to the City Council to have DTSC become lead agency on clean up and to clarify the historic integrity of the area. The City Council also previously directed the Historic Preservation Review Commission to review the EIR document for the Lower Arsenal Mixed Use Specific Plan with regards to historic context issues. The Historic Preservation Review Commission's role at the December 17, 2009 meeting should be to recommend to Council whether the Lower Arsenal Mixed Use Specific Plan and project EIR adequately addresses historic resources in the lower Arsenal area.

GENERAL PLAN:

Relevant General Plan Goals and Policies include:

- Goal 2.5: Facilitate and encourage new uses and development which provide substantial and sustainable fiscal and economic benefits to the City and the community while maintaining health, safety, and quality of life.

- Goal 2.8: Maintain the viability of the Port now and in the future to benefit the City of Benicia.

- Goal 2.11: Encourage the retention and continued evolution of the lower Arsenal into a historic/cultural/commercial/industrial center of mutually compatible uses.
  - Policy 2.11.1: Retain and expand the mix of compatible and balanced uses in the lower Arsenal area.
  - Policy 2.11.2: Continue to allow live/work uses in the lower Arsenal where it can be demonstrated that adequate buffers exist, including noise buffers, and that the presence of residents would not significantly constrain industrial al operations, including the flow of goods and materials.

STRATEGIC PLAN:

Relevant Strategic Plan Goals and Strategies:

- Strategic Issue #3: Strengthening Economic and Fiscal Conditions
  - Strategy #5: Increase economic viability of industrial park and other commercial areas, while preserving economic strengths and historic resources.

BUDGET INFORMATION:

Preparation of the Plan and EIR has been fully funded with $440,000 from the General Fund.

ENVIRONMENTAL ANALYSIS:

The Draft EIR was released for public review from July 19, 2007 to September 6, 2007. In response to public comment, a first partial recirculation document was distributed from April 22,

2008 to July 22, 2008. It contained "significant new information" per California Environmental Quality Act Guidelines 15088.5, including hazards and cultural resource impacts not previously identified in the Draft EIR.

In addition to the two original mitigation measures for the Hazards and Hazardous Materials section of the EIR that dealt with what must occur when hazardous materials are uncovered, another measure was included that acknowledges the potential presence of hazardous materials throughout the lower Arsenal area and directs property owners to investigate and remediate contaminated areas if discovered, in conjunction with any potentially responsible parties such as prior owners and regulatory agencies. (A more comprehensive hazard mitigation strategy involving the State Department of Toxic Substances Control and the Department of Defense would be preferable but as yet has not been attainable through discussions with these parties.)

The Cultural and Paleontological Resources section retained eight of the original 13 mitigation measures pertaining to cultural resources and added a mitigation measure to address construction of new buildings that could adversely affect National Historic Register District D in the South of Grant Street Zone.

A Response to Comments (RTC) Document was prepared and circulated in August 2008 that addresses all comments received on the Draft EIR to that date, including the first set of recirculated sections.

A second partial recirculation of the DEIR occurred from August 21, 2009 through October 22, 2009, which includes the Global Climate Change, Energy Use, and Sustainability (formerly Sustainability and Energy) section and the Noise section. This recirculation is not required pursuant to CEQA; instead, it is intended to comply with Assembly Bill 32 directives to reduce greenhouse gas emissions, reduce energy consumption and increase energy efficiency, as well as to satisfy a request from the Port of Benicia for analysis of a noise study it submitted. No new mitigation measures were added as a result of this second recirculation. The Mitigation Monitoring and Reporting Program for the Draft EIR is attached to this report.

BACKGROUND:

The Benicia General Plan establishes a Lower Arsenal Mixed Use designation for approximately 50 acres generally bounded by I-780, the Port of Benicia, and residences east of East 7th Street. "This category includes residential, live/work, office, retail, public and quasi-public, and limited industrial uses" (General Plan page 28). (Work/live use was not contemplated at the time of the 1999 General Plan update but is included in the Draft Specific Plan and could be determined by the City Council to fit within this range of allowed uses without amendment to the General Plan.)

In August 2006, the City began a process to involve citizens in planning for preservation and change in the lower Arsenal with a community workshop and stakeholder interviews, followed by a multi-day charrette in September 2006. In January 2007, the Planning Commission and Historic Preservation Review Commission recommended the Draft Lower Arsenal Mixed Use Specific Plan to the City Council, and Council approved a Draft Plan for Environmental Review in February 2007 (published March 30, 2007).

The Planning Commission held an EIR scoping hearing in April 2007, and the Draft EIR was published in July 2007. The first Draft EIR recirculation was published in April 2008, and the Planning Commission held a public hearing on the recirculated section in June 2008, and another to recommend Council approval of the Draft Plan and Draft EIR in August 2008.

After considering the Draft Plan and Draft EIR at its October 21, 2008 regular meeting, the City Council directed that an additional public workshop be held, primarily to provide Council with additional information regarding the historic preservation and residential/industrial compatibility issues. The results of that workshop, held April 6, 2009, are attached to this report.

Following the April 2009 workshop, staff requested Council direction to revise the Sustainability and Energy section of the EIR to become the Global Climate Change, Energy Use, and Sustainability section in compliance with AB 32. In addition, staff agreed to the Port's request to analyze the noise report submitted on the Port's behalf (rather than merely respond to it as a comment on the Draft EIR).

The public comment for the second recirculation concludes with this October 22, 2009 joint meeting of the Planning Commission and Historic Preservation Review Commission. As the second recirculation has not (at least yet) resulted in additional proposed Draft EIR mitigation measures, the Mitigation Monitoring and Reporting Program presented to the City Council in October 2008 remains valid and is attached to this report. With any additional recommendation of the Planning Commission and Historic Preservation Review Commission arising from this special joint meeting, plus public comments received through the end of this meeting and additional responses to those comments, the City Council can act on the Plan and EIR, including the Mitigation Monitoring and Reporting Program.

SUMMARY:

The Draft Plan includes a different set of development and land use standards for the Lower Arsenal area than are presently established by the zoning ordinance. The Plan includes standards for building form, architecture, open space, and circulation. These standards would replace current zoning provisions for allowable uses, permit requirements and site development; however, the Arsenal Historic Conservation Plan would continue to provide additional design guidelines that will supersede the Specific Plan provisions in the event of any conflict. (Specific Plan Appendix B compares Specific Plan provisions to those of the Conservation Plan.)

The Specific Plan would allow approximately 215,000 square feet of new development in the plan area in the form of a mixture of uses, which is roughly one-third the additional amount of office, commercial and live-work square footage that could be allowed under current zoning. The majority of new development would occur at the Jefferson Ridge, which is the only area for which the Plan considers more than one development pattern, based on public input. Put simply, these alternatives are preservation of the ridge largely as open space versus significant development of large-scale buildings to match the mass and scale of existing historic structures.

The land use plan that would be adopted if the Specific Plan is approved by Council as recommended by the Planning Commission in August 2008 is the one titled "Option 2" on page

2-8 of the March 30, 2007 Lower Arsenal Mixed Use Specific Plan Draft for Environmental Review. The significant development alternative, it would allow (and accordingly, the Draft EIR describes "the project" as):

- 185,000 sq. ft. of new mixed-use development on the Jefferson Ridge in seven major buildings designed to complement the existing formal military architectural and spatial arrangement of the site. This alternative includes several new streets.

The preservation-oriented option (which the Draft Plan and Draft EIR call "Option 1") would preserve and rehabilitate existing structures on the ridge without the addition of new ones. This scenario, identified in the Draft EIR as the "environmentally superior" alternative, would require financial control of the ridge area by an entity able to afford the conservation effort without additional development. Possibilities include purchase, conservation easement, and/or transfer of development rights. It should be noted that advocates of preservation have expressed concern that this alternative (shown on page 2-7 of the March 30, 2007 Lower Arsenal Mixed Use Specific Plan Draft for Environmental Review) inappropriately includes a new building at the corner of Park Road and Jefferson Street, as well as new vehicle access east of the Jefferson Street Mansion and West of the Commanding Officer's Quarters. (Representatives of Opticos Design, the firm that prepared the Plan, have responded that they believe the vehicle access accurately reflects consensus from the charrette.)

The Draft EIR also considers two additional land use alternatives for the Jefferson Ridge suggested by public commenters:

- another preservation-oriented scenario, called "Option 1.5," which would allow two new commercial buildings approximately 35,000 sq. ft. each and devote most of the existing open space to a memorial park; and

- a proposal for a senior housing development that would include 50 below-market-rate apartments in one new building above Jefferson Street and 30 market-rate townhouses in nine structures below Jefferson Street.

At its August 14, 2008 regular meeting, the Planning Commission recommended approval of the Plan, and therefore, the Jefferson Ridge development alternative, or "Option 2," (by a vote of 3-to-1 with one abstention) and certification of the EIR (by a vote of 4-to-1), with modification of Specific Plan Action 4.6.2 to prohibit Historic Preservation Review Commission consideration of alteration any structure in the Plan area more than 50 years old until the Lower Arsenal historic resource inventory has been updated.

The question of whether residential use beyond work/live is appropriate in the Arsenal is a matter of City Council policy. Although the simplest way to protect public health would be to prohibit residences, and although individual parcel analysis (and cleanup as necessary) involves uncertainty regarding the level of investment needed to obtain State or County approval for housing, the Draft EIR includes the necessary required mitigation from each property owner desiring to develop in the Lower Arsenal. A detailed, comprehensive characterization of potential hazards would be preferable, but representatives of the U.S. Army Corps of Engineers

and State Department of Toxic Substances Control have told City staff that neither agency will perform a comprehensive hazards investigation nor prescribe corrective measures for the area.

As stated in the April 2009 workshop summary, the workshop did not yield consensus but did identify "conditions" that might lead to resolution of the residential/industrial compatibility issues, such as restricting sensitive populations from inhabiting work-live units close to industrial uses and adding buffers to separate residential and industrial uses. (The other conditions listed on page 3 of the summary are covered by Plan actions and/or EIR mitigation measures.)

Attachments:

- April 2009 Workshop Report
- Mitigation Monitoring and Reporting Program
- August 14, 2008 Planning Commission minutes
- August 2009 Draft EIR Recirculation
- Lower Arsenal Mixed Use Specific Plan **
- Draft Environmental Impact Report (including July 2007 Recirculation and Responses to Comments) **

*** Available online, these attachments are available to view in the Community Development Department or the Benicia Public Library. In addition, all documents are available on the City's website (www.ci.benicia.ca.us) under Public Works & Community Development/Current Projects/Arsenal Plan.*

APRIL 2009 WORKSHOP REPORT

City of Benicia

Lower Arsenal Mixed-Use Specific Plan

Prepared by:
MIG
800 Hearst Avenue
Berkeley, CA 94710

Community Workshop Summary – April 6, 2009

On April 6, 2009, the City of Benicia hosted a workshop at the Benicia Library to get community input on the Lower Arsenal Mixed Use Specific Plan. Specifically, participants discussed issues and opportunities related to the following two topics:

- Historical and cultural resources
- Residential / industrial use compatibility

Mayor Elizabeth Patterson opened the meeting and welcomed the participants. Planning Director Charlie Knox provided background information on the Lower Arsenal Mixed Use Specific Plan and an overview of the meeting agenda.

Daniel Iacofano and Vikrant Sood from MIG, Inc., facilitated the meeting and recorded comments.

Meeting handouts included an agenda and a comment card (see Appendix A). A total of 17 comment cards and three letters were submitted as written comments (see Appendix B).

Summary of Comments

This report summarizes comments received at the workshop and from comment cards.

A. Historical and Cultural Resources

Many participants consider the Lower Arsenal area as a unique resource similar in some ways to the Presidio in San Francisco and the Gas Light District in Grand Rapids. Most participants agreed that the City should protect historic structures as well as the public and open spaces around buildings that define this area's character.

Participants identified the following historic resources that should be protected:

- **Commanding Officer's Building.** The building is a major landmark in the Lower Arsenal. A number of social and cultural events took place in this building when the base was active including the Sunday Afternoon Tea for example.
- **View Corridors and Access-Ways.** The placement of buildings in the Lower Arsenal defines view corridors that symbolize the character of this area. In addition, the Lower Arsenal stairway and other access-ways are part of the landscape that contributes to a sense of place and ambience.
- **Character of the District.** The scale and layout of buildings and public spaces on Jefferson Ridge, especially the parade grounds and overall layout of buildings and structures are integral components of the historic sub-districts C and D. Historic buildings, structures, sites and landscapes in the Lower Arsenal maintain its sense of time and place.

Participants identified the following issues and challenges as barriers to resource protection:

- Maintaining economic viability of the Lower Arsenal through revitalization and reuse.
- Integrating new development in the historic districts. The type of use, character and scale of new buildings and placement on the site should be consistent with existing buildings and landscape.
- Maintaining the historic character of this area as the City develops the Lower Arsenal for cultural-heritage tourism and economic development.

- Supporting private property owners in meeting both economic development and historic preservation goals. Unlike the Presidio, this area is privately owned. Low rents in the area often make renovations economically infeasible.
- Addressing structural defects in the foundations of many historic buildings. For example, the price tag for retrofitting the foundations of four buildings may exceed $1 million.
- Identifying an appropriate and economically viable use for the Commanding Officer's Building.

To address these issues and challenges, participants identified the following strategies:

- Purchase the property and create a natural heritage area to protect the Lower Arsenal. The Carquinez Strait Preservation Trust (CSPT) is currently reviewing the feasibility of this option.
- Provide incentives to private owners to rehabilitate and reuse historic buildings. Funding sources may include tax credits, Mills Act funds, bonds and improvement districts.
- Seek external funds and grants for preservation.
- Allow economic activity in the Lower Arsenal including artist work-live units and retail mixed use to activate the area and generate revenue.
- Create a marketing program for the rehabilitated Commanding Officer's Building.
- Conduct a survey of properties that may be 50 years or older for potential designation as historic resources on the National Register.
- Explore the feasibility of a land-swap to protect the hillsides.
- Pursue partnerships with organizations and agencies that share similar goals for preservation.
- Identify appropriate models and best practices that are applicable to the Lower Arsenal. Examples may include the Presidio, Cannery Row, etc.
- Other strategies to revitalize the Lower Arsenal suggested by community members include:
  - Publishing a book on 'The Arsenal' to attract tourists;
  - Dramatizing the late-1800's era setting with costumes on weekends; and
  - Building an aquarium on the fringe of the historic area.

B. Residential / Industrial Use Compatibility

Many participants expressed concern for public health and safety of residents who may live close to industries if residential uses were allowed on the Lower Arsenal. Other participants, many of whom rent or own residential units in the area highlighted current and future demand for affordable and flexible living space for artists and entrepreneurs.

Participants identified the following challenges associated with residential and industrial use compatibility:

- Polluting industrial uses in the area pose significant risk to public health and safety especially for children. Hazards include coke dust, unexploded military ordinance, diesel emissions, soil contamination, odors and noise, among others.
- Residential uses are inconsistent with the General Plan description for this area and will affect the viability of adjacent industrial operations over time.
- Buildings in the Lower Arsenal were never intended to be used for residential purposes.

Other participants identified the following benefits of including residential uses in the Lower Arsenal:

- Work-live units provide an affordable and flexible space that allows residents to live next to where they work. Demand for these units is high as evidenced by low vacancy rates in existing units. The Housing Element identifies this area for additional housing development.
- These units provide space that supports non-traditional lifestyles that suit many households and individuals. No other area in the City provides such space. The space is compatible with the type of uses that attract artists and entrepreneurs.
- People living in the historic district can bring life to the area and contribute to the economic vitality of all uses on the Lower Arsenal. Market trends suggest that this area is difficult to develop profitably for any one use.
- Residents living in the Lower Arsenal are likely to become active in improving the quality of the area over time.

While there was no consensus on whether residential uses would be appropriate in the area, participants identified the following conditions that may lead to a working arrangement on this issue:

- **Define work-live.** Define what percentage of work and live space constitutes each category. While live-work is more suitable for commercial areas, work-live may be suitable in industrial areas. In the Lower Arsenal, work-live units that exclude families and sensitive populations may be appropriate south of Adam Street.
- **Restrict sensitive populations.** To the extent feasible and practical, restrict sensitive and vulnerable populations from inhabiting work-live units close to industrial uses such as young children and the elderly.
- **Include buffers and open space.** Physical separation, landscaping and transitional uses can mitigate the impacts of locating residential units close to industrial uses in the Lower Arsenal.
- **Ensure full disclosure and transparency.** The City should require developers and owners to provide full disclosure of potential health impacts of environmental toxins and contaminants in the area, and full disclosure of information with respect to the nature of ongoing industrial operations.
- **Include protections for existing industry.** Allowing new residential uses in the area should not threaten or undermine the viability of existing industrial uses.
- **Ensure toxic remediation.** Buildings and sites must be remediated to appropriate levels for residential use.
- **Provide alternative access to site.** Providing alternative emergency access routes to the site will improve safety conditions.

Participants provided the following observations regarding residential and industrial use compatibility:

- The City of Benicia General Plan identifies the Lower Arsenal as a target area for economic development opportunities.
- Some industrial uses in the area are 24-hour operations that may have significant impacts on adjacent residential uses.
- The cost of remediating sites to Environmental Protection Agency (EPA) standards may be prohibitive to residential development in rehabilitated buildings.
- Level of concern for public health should be balanced with the need to provide affordable and flexible living options.
- High density residential uses already exist on the Lower Arsenal.

- Existing residents have not complained about environmental quality. In addition, workers in the Lower Arsenal are exposed to environmental contaminants as well.
- Pollution is not restricted to the Lower Arsenal.
- This is a great opportunity to develop non-industrial uses on the Lower Arsenal.
- Projects in the Lower Arsenal should promote social, economic and environmental sustainability.
- The Final Environmental Impact Report (FEIR) does not address AB 32 and SB 375 and the potential cumulative impacts of environmental hazards.
- Work-live should emphasize green businesses.

Next Steps

Mayor Patterson and Mr. Knox thanked the participants for attending the workshop and closed the meeting. Mr. Knox outlined the following next steps:

- Community input from this workshop will be recorded in a meeting summary.
- The summary will be presented to the City Council for review and further discussion.

Appendix

The following materials are attached to the meeting summary:

- Meeting Agenda
- Wall-Graphic
- Comment Cards, Letters and Emails

MITIGATION MONITORING AND REPORTING PROGRAM

EXHIBIT "D"

MITIGATION MONITORING AND REPORTING PROGRAM

Introduction

This document describes the mitigation monitoring and reporting program (MMRP) for ensuring the effective implementation of the mitigation measures required for City of Benicia approval of the Lower Arsenal Mixed Use Specific Plan (project). The Plan Area comprises approximately 50 acres and is generally bounded by lands adjoining I-780 on the north, lands adjoining I-680 on the east, Port of Benicia land and the Carquinez Strait on the south, and residential neighborhoods extending into Downtown Benicia on the west.

City of Benicia

When a lead agency approves findings pursuant to §15074 of the *CEQA Guidelines* upon completion of an Environmental Impact Report (EIR), it is required to adopt a reporting and monitoring program. The purpose of the reporting and monitoring program is to ensure that measures adopted to mitigate or avoid significant environmental impacts are implemented. A mitigation monitoring and reporting program does not need to be included with the EIR, as at times the findings which trigger the program are made after considering the EIR. Note that mitigation measures are enforced through permit conditions, agreements, or other measures. The reporting and monitoring program will not only direct the implementation of mitigation measures by the City, but also facilitate the monitoring, compliance and reporting activities of the City and any monitors it may designate.

Project Background

The City is considering approval of the proposed project, which would result in adoption of the Lower Arsenal Mixed Use Specific Plan, adoption of a form-based code for the Plan Area to replace the City's zoning ordinance, and amendments to the General Plan and Zoning Ordinance to reflect adoption of the Specific Plan.

The Final EIR for the Lower Arsenal Mixed Use Specific Plan project found that the resulting actions would have potentially significant impacts in the areas of:

- Land Use and Planning Policy
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials

- Biological Resources
- Transportation and Circulation
- Air Quality
- Noise
- Visual Resources
- Cultural and Paleontological Resources

In addition, no mitigation measures were identified for the following areas as all potential project impacts were determined to be either not significant or less than significant:

- Population, Employment and Housing
- Hydrology and Water Quality
- Public Services
- Utilities and Infrastructure
- Sustainability and Energy

Roles and Responsibilities

As the lead agency under CEQA, the City of Benicia will be responsible for ensuring full compliance with the provisions of this monitoring program and has primary responsibility for implementation of the monitoring program. The City of Benicia has the authority to halt any activity associated with the Lower Arsenal Mixed Use Specific Plan projects if the activity is determined to be a deviation from the approved project or the adopted mitigation measures. The City of Benicia will act as the mitigation monitor and will designate to the applicant how to contact the monitor.

Mitigation Monitoring and Reporting Program

The attached table presents a compilation of the mitigation measures in the EIR, together with the required monitoring and reporting actions, effectiveness criteria, and timing.

The attached table includes columns identifying: (1) each impact identified in the Final EIR; (2) each mitigation measure included in the Final EIR; (3) the procedure for implementing each mitigation measure; (4) the party responsible for implementing each mitigation measure and any related requirements with respect to the timing of implementation; (5) the procedure for monitoring and reporting implementation of each mitigation measure; (6) the sanction for non-compliance with the provisions of each mitigation measure; (7) the criteria to determine whether each mitigation measure has been effective; and (8) the timing of the monitoring procedure. These checklist categories are discussed in more detail below.

<u>Identified Impact</u>
This column includes each identified significant adverse impact as it is described in the Final EIR summary table.

Mitigation Measure (Performance Criteria)
This column includes each mitigation measure as it is described in the Final EIR summary table, including associated performance criteria.

Implementation Procedure
This column describes the specific actions associated with each mitigation measure that must be implemented.

Implementing Entity
This column describes the "implementing entity" responsible for carrying out each mitigation measure (e.g., a City department, another public agency).

Monitoring/Reporting Action
This column describes the "type of monitoring action" required (e.g., condition of project approval, established plan check and/or inspection procedures or, if these are not sufficient, specialized monitoring procedures.

Non-Compliance Sanction
This column describes the consequences of not implementing the action outlined in the previous columns.

Effectiveness Criteria
This column sets forth standards for determining if the monitoring action is succeeding.

Timing
This column describes specific implementation timing requirements (e.g., at the completion of a particular development review or construction phase, prior to occupancy, or when some specific threshold is reached).

Table 1: Mitigation Monitoring and Reporting Program

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
A. LAND USE AND PLANNING POLICY							
LU-1: Residential uses developed within the Plan Area may be incompatible with existing industrial uses.	LU-1: The following changes shall be made to Action 1.5.3: Action 1.5.3: Allow residential uses, including artist live/work and work/live units, where it can be demonstrated that adequate buffers exist, including noise buffers, and that the presence of residents will not significantly constrain industrial operations, including the flow of goods and materials. Proposed residential uses located in areas where industrial uses can be seen or heard shall be evaluated to determine whether they would be incompatible with industrial uses. Site specific evaluation may include acoustical or air quality analysis as determined by the City. New work/live uses shall not be permitted along those portions of Jackson Street that are south of Grant Street and west of Park Street.	The City shall revise the language of Action 1.5.3 in the Final Lower Arsenal Mixed Use Specific Plan.	City of Benicia	City of Benicia Planning and Building Department to ensure that the text of Action 1.5.3 is revised.	No approval of the Final Lower Arsenal Mixed Use Specific Plan.	Revised text of Action 1.5.3 that is consistent with Mitigation Measure LU-1.	Prior to approval of the Final Lower Arsenal Mixed Use Specific Plan.
LU-2: Implementation of the Draft Specific Plan could result in conflicts between residential uses and industrial uses.	LU-2: Implement Mitigation Measure LU-1.	Refer to Mitigation Measure LU-1.	Refer to Mitigation Measure LU-1	Refer to Mitigation Measure LU-1	Refer to Mitigation Measure LU-1	Refer to Mitigation Measure LU-1	Refer to Mitigation Measure LU-1
B. POPULATION, EMPLOYMENT AND HOUSING							
There are no significant *Population, Employment and Housing* impacts.							

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
C. GEOLOGY, SOILS AND SEISMICITY							
GEO-1 (All Zones): Seismically-induced ground shaking in the Specific Plan Area could result in damage to life and/or property at new development sites.	GEO-1a (All Zones): Prior to the issuance of any site-specific grading or building permit in the Specific Plan Area, a final design-level geotechnical investigation report shall be prepared and submitted to the City of Benicia Planning and Building Department for review and confirmation that the proposed project fully complies with the California Building Code (Seismic Zone 4). The report shall determine the project site's geotechnical conditions and address potential seismic hazards such as seismic shaking. The report shall recommend foundation techniques appropriate to minimize seismic damage. In addition, the geotechnical investigation shall conform to the California Division of Mines and Geology (CDMG) recommendations presented in the *Guidelines for Evaluating Seismic Hazards in California*, CDMG Special Publication 117. All subsequent parcel-specific development and building plans shall comply with the California Building Code (Seismic Zone 4) requirements, or requirements superseding California Building Code requirements. In addition, future development plans shall comply with the requirements of the final design-level geotechnical investigation report unless superseded by a parcel-specific design-level geotechnical investigation report. All mitigation measures, design criteria, and specifications set forth in the geotechnical reports shall be fully implemented.	1) Individual project sponsors shall retain a licensed professional to prepare a final design-level geotechnical investigation for individual projects proposed in the Specific Plan Area. The report shall meet the requirements of Mitigation Measure GEO-1. 2) Future development plans shall comply with the final design-level geotechnical investigation unless superseded by a parcel-specific design-level report.	Project sponsor	City of Benicia Planning and Building Department to ensure that the design-level geotechnical investigation complies with the requirements of Mitigation Measure GEO-1 and all applicable regional, State, and federal regulations.	No issuance of site-specific building or grading permits.	A final design-level geotechnical investigation that meets the requirements of Mitigation Measure GEO-1.	Prior to the issuance of any site specific grading or building permits for individual projects in the Specific Plan Area.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
GEO-2 (All Zones): Seismically-induced ground shaking in the Specific Plan Area could result in damage to life and/or property in adaptively reused buildings.	GEO-2 (All Zones): Prior to approval of an occupancy permit for redeveloped buildings in the Specific Plan Area, a design-level seismic upgrade report shall be prepared, submitted to the City for review and approval, and the upgrade recommendation(s) shall be fully implemented. Prior to approving the design-level report, the City shall independently review the seismic upgrade report to determine the adequacy of the hazards evaluation and proposed mitigation measures. Such reviews shall be conducted by a structural engineer or registered civil engineer who has competence in the field of seismic hazard evaluation and mitigation.	1) Individual project sponsors for re-used buildings in the Specific Plan Area shall retain a licensed professional to prepare a design-level seismic upgrade report. The report shall meet the requirements of Mitigation Measure GEO-2. 2) The project sponsor shall incorporate all recommendations of the final design-level seismic upgrade report regarding mitigation of potential effects associated with seismic hazards.	Project sponsor	City of Benicia Planning and Building Department to ensure that the design-level seismic upgrade report is independently reviewed by the appropriate professional and that it complies with the requirements of Mitigation Measure GEO-2.	No issuance of an occupancy permit for redeveloped buildings in the Specific Plan Area.	A design-level seismic upgrade report that meets the requirements of Mitigation Measure GEO-2.	Prior to approval of an occupancy permit for redeveloped buildings in the Specific Plan Area.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
GEO-3 (All Zones): Damage to structures or property related to shrink-swell potential of project soils and/or settlements of non-engineered fill could occur.	GEO-3a (All Zones): Prior to the issuance of a site-specific grading permit or the construction of new roadways, sidewalks, and utility lines, a design-level geotechnical investigation shall be prepared by licensed professionals and approved by the City of Benicia Planning and Building Department. The design-level geotechnical investigation shall include measures to ensure potential damages related to expansive soils and differential settlement are minimized. Mitigation options for expansive soils may range from removal of the problematic soils and replacement, as needed, with properly conditioned and compacted fill, to design and construction of improvements to withstand the forces exerted during the expected shrink-swell cycles and settlements. Recommendations for specific foundation designs which minimize the potential for damage related to settlement shall be presented in the report.	1) Individual project sponsors shall retain a licensed professional to prepare a final design-level geotechnical investigation for individual projects proposed in the Specific Plan Area. The report shall meet the requirements of Mitigation Measure GEO-3a. 2) The project sponsor shall incorporate all recommendations of the final geotechnical report regarding mitigation of potential effects associated with expansive soils and differential settlement.	Project sponsor	City of Benicia Planning and Building Department to: 1) Ensure that the design-level geotechnical investigation complies with the requirements of Mitigation Measure GEO-3a. 2) Ensure that final design plans incorporate the recommendations of the final geotechnical report regarding mitigation of potential effects associated with expansive soils and differential settlement.	No issuance of a site-specific grading permit or construction of new roadways, sidewalks, and utility lines.	A design-level geotechnical investigation that meets the requirements of Mitigation Measure GEO-3a.	Prior to the issuance of a site-specific grading permit or the construction of new roadways, sidewalks, and utility lines.
	GEO-3b (All Zones): Designs of all open space and park areas shall be reviewed and approved by the City of Benicia Planning and Building Department. The designs of all open space and park areas shall incorporate low water-need plantings to minimize the potential for damage to pavements, utilities, and structures from expansive soils. The use of similar landscaping shall be encouraged at private development parcels by providing information to new tenants regarding the relationship between irrigation and subsequent property damage. A document which describes the potential for damage from expansive soils from over-irrigation and includes solutions such as drought-tolerant plant material and drip irrigation systems shall be prepared by the applicant and provided to all occupants of the Plan Area.	1) Individual project sponsors shall submit design plans for open space and park areas to the City. These design plans shall meet the requirements of Mitigation Measure GEO-3b. 2) The project sponsor shall prepare a document that meets the requirements of Mitigation Measure GEO-3b and provide this to all occupants of the Plan Area.	Project sponsor	City of Benicia Planning and Building Department to: 1) Ensure that the final design of open space and park areas complies with the requirements of Mitigation Measure GEO-3b. 2) Ensure that new tenants and occupants of the Plan Area are provided with the information required by Mitigation Measure GEO-3b.	No approval of final design plans for open space and park areas.	Open space and park design plans that incorporate low water-need plantings.	Prior to approval of final design plans for open space and park areas.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
GEO-4 (Adams Street Zone, Grant Street Zone, and South of Grant Street Zone): Damage to structures or property related to liquefaction, ground displacement, and ground failure could occur.	GEO-4 (Adams Street Zone, Grant Street Zone, and South of Grant Street Zone): Prior to the issuance of a site-specific grading permit or the construction of new roadways, sidewalks, and utility lines, a design-level geotechnical investigation shall be prepared by licensed professionals and approved by the City of Benicia Planning and Building Department. The design-level geotechnical investigation shall include measures to ensure potential damages related to liquefaction, ground displacement, and ground failure are minimized.	1) Individual project sponsors shall retain a licensed professional to prepare a final design-level geotechnical investigation for individual projects proposed in the Adams Street, Grants Street, and South of Grant Street Zones. The report shall meet the requirements of Mitigation Measure GEO-4. 2) The project sponsor shall incorporate all recommendations of the final design-level geotechnical report regarding mitigation of potential effects associated with liquefaction, ground displacement, and ground failure.	Project sponsor	City of Benicia Planning and Building Department to: 1) Ensure that the design-level geotechnical investigation complies with the requirements of Mitigation Measure GEO-4. 2) Ensure that final design plans incorporate the recommendations of the final geotechnical report regarding mitigation of potential effects associated with liquefaction, ground displacement, and ground failure.	No issuance of a site-specific grading permit or construction of new roadways, sidewalks, and utility lines within the Adams Street, Grant Street, or South of Grant Street Zones.	A design-level geotechnical investigation that meets the requirements of Mitigation Measure GEO-4.	Prior to issuance of a site-specific grading permit or the construction of new roadways, sidewalks, and utility lines within the Adams Street, Grant Street, and South of Grant Street Zones.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
GEO-5 (Jefferson Ridge Zone): Damage to structures or property could occur at the Jefferson Ridge Zone due to existing or induced slope instability resulting in landsliding.	GEO-5a (Jefferson Ridge Zone): Prior to the issuance of any site-specific grading or building permit, a design-level geotechnical investigation report shall be prepared and submitted to the City of Benicia Planning and Building Department for review and confirmation that the proposed project fully complies with the California Building Code (Seismic Zone 4). The applicant shall incorporate all recommendations of the final geotechnical investigation report regarding mitigation of slope instability into the project design.	1) Individual project sponsors shall retain a licensed professional to prepare a final design-level geotechnical investigation for individual projects proposed in the Jefferson Ridge Zone. The report shall meet the requirements of Mitigation Measure GEO-5a. 2) The project sponsor shall incorporate all recommendations of the final design-level geotechnical report regarding mitigation of potential effects associated with slope instability.	Project sponsor	City of Benicia Planning and Building Department to: 1) Ensure that the design-level geotechnical investigation complies with the requirements of Mitigation Measure GEO-5a. 2) Ensure that final design plans incorporate the recommendations of the final geotechnical report regarding mitigation of potential effects associated with slope instability.	No issuance of site-specific grading or building permits for development in the Jefferson Ridge Zone.	A design-level geotechnical investigation that meets the requirements of Mitigation Measure GEO-5a.	Prior to the issuance of a site-specific grading or building permit in the Jefferson Ridge Zone.
	GEO-5b (Jefferson Ridge Zone): All grading plans, cut and fill slopes, compaction procedures, and retaining structures shall be designed by a licensed professional engineer and inspected during construction by a licensed professional engineer (or representative) or Certified Engineering Geologist (or representative). All designs shall be submitted to, and approved by, the City of Benicia prior to implementation.	1) Individual project sponsors shall retain a licensed professional to design all grading plans, cut and fill slopes, compaction procedures, and retaining structures for development in the Jefferson Ridge Zone. 2) Individual project sponsors shall retain a licensed professional to inspect grading activities for compliance with approved grading and design plans.	Project sponsor	City of Benicia Planning and Building Department to: 1) Review and approve all grading plans, cut and fill slopes, compaction procedures, and retaining structures for development in the Jefferson Ridge Zone. 2) Ensure that grading activities occurring within the Jefferson Ridge zone comply with approved design plans.	No approval of final design plans for development in the Jefferson Ridge Zone.	Final design plans that meet the requirements of Mitigation Measure GEO-5b.	1) Prior to the issuance of a site-specific grading or building permit in the Jefferson Ridge Zone. 2) Inspections to occur during the construction period.
D. HYDROLOGY AND WATER QUALITY							
There are no significant *Hydrology and Water Quality* impacts.							

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
E. HAZARDS AND HAZARDOUS MATERIALS							
HAZ-1: Site development would occur in areas with documented and/or partly characterized environmental releases associated with historical site uses.	HAZ-1: Existing contamination shall be remediated, or engineering controls (engineered caps, vapor barriers, or other appropriate technologies) and administrative controls (withholding of building permits) shall be implemented, to ensure that potential future occupants of the Plan Area are not exposed to site-related contamination that exceeds acceptable health standards. The parties responsible for implementing site clean-up actions may include the USACE, other historical owners/operators of properties within the Plan Area, current owners of properties within the Plan Area, future developers of the properties within the Plan Area, or the City of Benicia. Acceptable health standards for the purpose of site clean-up shall mean an incremental lifetime cancer risk within the U.S. EPA's risk management range of one in ten thousand to one in a million (10^{-4} to 10^{-6}) or less and a non-cancer health hazard index of less than one based on the results of site-specific multimedia human health risk assessment(s). Groundwater health standards shall meet CalEPA requirements for the designated beneficial use(s) of groundwater in the Plan Area. CalEPA and the City shall certify that these requirements have been met before the City issues a Certificate of Occupancy for buildings constructed as part of redevelopment projects within the Plan Area. The nature and extent of contamination at the site is not fully characterized. In accordance with the requirements of the DTSC's	The appropriate parties shall characterize soil and groundwater contamination in accordance with the DTSC's Preliminary Endangerment Assessment process or other acceptable regulatory guidance. Collected environmental data shall be used to conduct a human health risk assessment to determine whether additional remediation is required.	Owners of properties within the Plan Area, future developers of the properties within the Plan Area, and/or the City of Benicia.	The City of Benicia Planning and Building Department, in conjunction with the appropriate oversight agency to ensure that future occupants of Specific Plan Area are not exposed to contamination that exceeds acceptable health standards and that the measures listed in Mitigation Measure HAZ-1 are implemented.	No issuance of occupancy permits.	Verification that applicable health standards are met.	Prior to issuance of occupancy permits.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
HAZ-1 *Continued*	Preliminary Endangerment Assessment process or other acceptable EPA or CalEPA regulatory guidance for site investigations, soil and groundwater samples shall be collected and analyzed in areas with inadequate historical information to determine whether chemicals in the soil and groundwater are present at concentrations that exceed acceptable health standards. To ensure that future site occupants are not exposed to site-related contamination that exceeds acceptable health standards the following shall activities shall be conducted: • The nature and extent of chemicals in soil and groundwater shall be investigated and described for each parcel or group of parcels to be redeveloped, with oversight by the appropriate regulatory agency, such as the DTSC, RWQCB, or SCEHS. • The environmental data collected as part of the site investigation shall be used as input for human health risk assessment(s) to determine whether any chemicals in soil or groundwater will present an unacceptable risk to site occupants (i.e., exceed acceptable health standards as described above) given the site uses proposed in the Specific Plan and any subsequent redevelopment plans proposed for the parcel(s).						

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
HAZ-1 *Continued*	• The results of the human health risk assessment shall be used to determine whether no further action is required prior to redevelopment or that remediation of contamination or implementation of engineering or administrative controls is required to ensure that potential future occupants of the Plan Area are not exposed to site-related contamination that exceeds acceptable health standards. • If remediation, engineering controls, or administrative controls are required to ensure that human health risk does not exceed acceptable health standards, these actions shall be completed before the site is occupied. Monitoring and compliance shall consist of the following: • Before the City issues building permits for a site within the Plan Area, it shall confirm that: a finding of No Further Action has been made by the overseeing regulatory agency with regard to site contamination and clean-up, or that a Remedial Action Plan or equivalent and a site health and safety plan are complete and incorporated as part of the redevelopment construction plans for the site; and that engineering controls are in place and functioning or included in the project design plans, and/or that land use covenants are in place for the property that will ensure future occupants of the site are not exposed to contamination that exceeds acceptable health standards.						

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
HAZ-2: Construction activities may unexpectedly encounter hazardous materials or hazardous waste in soil and groundwater.	HAZ-2a: If soil, groundwater or other environmental media with suspected contamination (e.g., identified by odor or visual staining) is encountered unexpectedly during construction activities for individual development projects or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered, the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the SCEHS and implementing actions to determine the nature and extent of any observed contamination. An environmental professional shall oversee the subsequent assessment of the site (including the collection, analysis and interpretation of any samples of soil, groundwater or other environmental media) in accordance with local, State and federal hazardous materials and hazardous waste laws and regulations. The professional shall provide recommendations, as applicable, regarding soil/waste management, worker health and safety training, and regulatory agency notifications. General construction work shall not resume in the area(s) affected until the recommendations have been implemented under the oversight of the SCEHS or other regulatory agency, as appropriate.	1) The project sponsor shall ensure that the construction contractor implements the measures listed in Mitigation Measure HAZ-2a in the event that contaminated materials are encountered. 2) The project sponsor shall notify the SCEHS and retain a qualified environmental professional to oversee assessment of the site 3) Recommendations of the SCEHS and environmental professional shall be implemented.	Project sponsor	The City of Benicia Planning and Building Department and Solano County Environmental Health Services to ensure that the measures listed in Mitigation Measure HAZ-2a are implemented, as applicable.	Non-compliance sanctions which may include citations or revocation of permits.	Adherence to the recommendations of SCEHS or other regulatory agency.	In the event that hazardous materials are encountered during the construction period.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
HAZ-2 *Continued*	HAZ-2b: The contractor involved in site grading and site development activities for an individual development project shall ensure that underground pipelines or other underground or aboveground utilities within the project site are identified and clearly marked prior to earthworking activities to avoid unexpected contact with these utilities. Emergency procedures shall be developed by the contractor that can be implemented in the event utilities are ruptured; these procedures shall be reviewed and approved by the City of Benicia Planning and Building Department, prior to the issuance of a grading or building permit. On-site workers shall be trained in how to implement these procedures.	The project sponsor shall ensure that the construction contractor identifies underground pipelines or other underground or aboveground utilities and implements appropriate emergency procedures in the event that utilities are ruptured.	Project sponsor	The City of Benicia Planning and Building Department shall review and approve the construction contractor's procedures for avoiding utility lines.	No issuance of any site-specific tree, grading, or building permits.	Appropriate procedures for prevention of and response to potential rupture of underground and aboveground utilities.	Prior to issuance of a site-specific tree, grading or building permit.
F. BIOLOGICAL RESOURCES							
BIO-1: Mature trees that are protected under the City's Tree Ordinance may be removed as part of the development on the project site.	BIO-1: Prior to development of individual projects, a tree report shall be prepared by an arborist or biologist to identify the location, size, and health of trees on the site, and to map and identify the trees that would be preserved and removed during construction of the project. The report shall also specify measures to protect all preserved trees during construction, including creation of Tree Protection Zones. The project sponsor shall apply for a Tree Permit for the removal of all protected trees. As part of the Tree Permit, an arborist or biologist shall develop a tree replacement program in accordance with the City's tree ordinance. Two 15-gallon trees are generally required for the replacement of each mature tree that is removed. In some cases, one or two 24-inch box trees, or a mature tree shall be required for the replacement of one mature tree.	1) The project sponsor shall retain an arborist or biologist to prepare a Tree Report and a Tree Replacement Program in accordance with the requirements of Mitigation Measure BIO-1. 2) The project sponsor shall apply for a Tree Permit for the removal of protected trees.	Project sponsor	The City of Benicia Planning and Building Department to review the Tree Report, Tree Replacement Program, and Tree Permit application for adequacy.	No issuance of any site-specific tree, grading, or building permits.	Tree Report and Tree Replacement Program in accordance with the requirements of Mitigation Measure BIO-1.	Prior to issuance of a site-specific tree, grading or building permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-2 (Jefferson Ridge/Officers' Row Zone): Development in the Jefferson Ridge/Officers' Row Zone (including the Clocktower Area) may result in the fill of jurisdictional wetlands that are subject to jurisdiction as waters of the United States under Section 404 of the Clean Water Act and/or are waters of the State subject to jurisdiction under the Porter-Cologne Act.	BIO-2a (Jefferson Street/Officers' Row Zone): Prior to approving any development project in the Jefferson Ridge/Officers' Row Zone, a formal wetland delineation will be conducted to determine the extent of jurisdictional waters of the United States and waters of the State on the site. Potential impacts to jurisdictional waters will be avoided where feasible, and unavoidable impacts shall be minimized to the extent that is feasible.	1) The project sponsor shall retain a qualified professional to conduct a formal wetland delineation for projects in the Jefferson Street Zone. 2) The project sponsor shall avoid impacts to jurisdictional waters where feasible, and unavoidable impacts shall be minimized to the extent feasible.	Project sponsor	The City of Benicia Planning and Building Department to review the wetland delineation and verify that impacts to jurisdictional waters are avoided to the extent feasible.	No approval of final development plans within the Jefferson Street Zone.	Jurisdictional wetland delineation in accordance with standards of U.S. Core of Engineers and State natural resources agencies.	Prior to approval of final development plans for the Jefferson Street Zone.
	BIO-2b (Jefferson Street/Officers' Row Zone): Applicants for individual development projects on the site of any delineated wetlands shall obtain the appropriate federal and State permits authorizing the fill of jurisdictional wetlands and other waters, including waters of the State. The applicant shall provide proof to the City of Benicia Planning and Building Department of compliance with the terms and conditions of the permits prior to issuance of the grading permit. All work in jurisdictional areas shall be in compliance with the terms and conditions of the federal and State permits.	1) The project sponsor shall obtain all appropriate federal and State permits for the fill of wetlands and waters of the United States. 2) The project sponsor shall ensure that the construction contractor undertakes work on the site in compliance with the permits.	Project sponsor	The City of Benicia Planning and Building Department to: 1) Verify that the project sponsor has obtained any necessary permits. 2) Visit the site periodically to ensure that site development is being undertaken in accordance with the permits.	No issuance of any site-specific grading or building permits.	Appropriate federal and State permits authorizing fill of wetlands or jurisdictional waters.	Prior to issuance of any site-specific grading or building permit, and periodically during the project construction period, at the discretion of the Planning and Building Department.
	BIO-2c (Jefferson Street/Officers' Row Zone): All waters of the United States or waters of the State that are filled as a result of project development will be mitigated at a minimum 1:1 ratio or the higher of the ratios stipulated in the federal or state permit authorizing fill of the wetlands or non-wetland waters. Mitigation for impacts to wetlands or other waters may be accomplished by 1) on- or off-site creation of wetlands or non-wetland waters at an appropriate mitigation site, or 2) by purchasing credit at an approved off-site mitigation bank.	A project sponsor that will fill waters of the U.S. or waters of the State in the Jefferson Street Zone shall mitigate those impacts as specified in Mitigation Measure BIO-2c.	Project sponsor	The City of Benicia Planning and Building Department to verify that wetland mitigation is adequate.	No issuance of any site-specific grading or building permits in the Jefferson Street Zone.	Mitigation for the fill of waters of the U.S. or waters of the State in accordance with Mitigation Measure BIO-2c.	Prior to issuance of any site-specific grading or building permits in the Jefferson Street Zone.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-2 *Continued*	BIO-2d (Jefferson Street/Officers' Row Zone): The project sponsor will implement a wetland mitigation and monitoring plan as mitigation for impacts to jurisdictional wetlands and waters. The plan will detail the mitigation design, wetland planting design, maintenance and monitoring requirements, reporting requirements, and success criteria. The mitigation wetlands shall be monitored for a minimum of 5 years. This plan shall be approved by the Corps and the City prior to implementation.	1) A project sponsors shall retain a qualified professional to develop and implement a wetland mitigation and monitoring plan to mitigate impacts to jurisdictional wetlands and waters, as specified in Mitigation Measure BIO-2d. 2) The project sponsor shall monitor mitigation wetlands for a minimum of 5 years.	Project sponsor	The City of Benicia Planning and Building Department and U.S. Army Corps of Engineers to: 1) Review the wetland mitigation and monitoring plan to ensure consistency with Mitigation Measure BIO-2d. 2) Perform annual reviews of mitigation wetlands for 5 years, adhering to the protocol outlined in the monitoring reports.	No issuance of any site-specific grading or building permits in the Jefferson Street Zone.	Implementation of a wetland mitigation and monitoring plan for impacts to jurisdictional waters.	1) Prior to issuance of any site-specific building or grading permits in the Jefferson Street Zone. 2) Annually for 5 years.
	BIO-2e (Jefferson Street/Officers' Row Zone): During construction of individual development projects, no material shall be allowed to enter or be stored in any wetlands that are to be preserved. Project-related dirt and other material shall be kept sufficiently far away from preserved wetlands and drainages to prevent material from entering these features. If earthmoving activities or material stockpiling occurs upslope from a preserved wetland or drainage, silt fencing	The project sponsor shall ensure that the construction contractor implements the wetland protection provisions of Mitigation Measure BIO-2e.	Project sponsor	City of Benicia Planning and Building Department to visit the site to ensure that no material is being allowed to enter wetlands, and that adequate protection (e.g., silt fencing) exists around wetlands.	Non-compliance sanctions imposed by City agencies may include citations or revocation of permits.	Implementation of wetland protection provisions of Mitigation Measure BIO-2e.	Periodically throughout the development phase of the project, at the discretion of the Planning and Building Department.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-2 *Continued*	shall be installed around the preserved feature to prevent soil from entering the wetland or drainage. Silt fencing shall be installed at the least 5 feet from the edges of preserved wetlands and drainages. Silt fencing shall also be installed around preserved features whenever earthmoving activities or material stockpiling occurs within 20 feet of a preserved feature. All equipment washing shall occur down slope from preserved wetlands to prevent the runoff from entering the preserved wetlands. Berms or other barriers shall be constructed outside of preserved wetlands or drainages to prevent wash water runoff from entering the preserved wetlands.						
	BIO-2f (Jefferson Street/Officers' Row Zone): A conservation easement shall be established over the mitigation wetlands to preserve these wetlands in perpetuity. The City of Benicia or other public resource agency shall hold the easement to ensure retention of this land in perpetuity.	The project sponsor shall place a development restriction on areas containing existing and/or created wetlands to ensure that wetlands will be preserved in perpetuity.	Project sponsor	City of Benicia Office of the Attorney to review project title documents to ensure that wetlands will be preserved in perpetuity.	No issuance of any site-specific grading or building permit.	Development restriction on created or existing wetlands.	Prior to issuance of any site-specific grading or building permit.
	BIO-2g (Jefferson Street/Officers' Row Zone): Applicants for individual development projects on the site of any delineated wetlands shall provide financial assurances of a type (i.e., bond, letter of credit) and amount to be determined by the Corps and the City to ensure successful implementation of the wetland mitigation and monitoring plan. The project sponsor shall also provide a long-term funding mechanism for the maintenance of the mitigation wetlands in the conservation easements in perpetuity.	The project sponsor shall provide financial assurances to ensure successful implementation of the wetland mitigation and monitoring plan.	Project sponsor	City of Benicia Planning and Building Department to verify that adequate financial assurances for wetland protection and restoration have been provided (particularly that financial assurances meet Corps requirements).	No issuance of any site-specific grading or building permit.	Financial payment to ensure the implementation of the wetland mitigation and monitoring plan.	Prior to issuance of any site-specific grading or building permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-3: Development on the project site may impact special-status plants.	BIO-3a: Prior to construction of the project, a rare plant survey according to CNPS, CDFG, and USFWS protocols will be conducted in all potential habitat areas of the site. The survey should be conducted by a qualified botanist familiar with the flora of the Benicia area and with expertise in the identification of the special-status species potentially occurring onsite. Surveys will be conducted as appropriate throughout the growing season to ensure that all target species are observed.	The project sponsor shall retain a qualified botanist to conduct a rare plant survey in any potential habitat areas.	Project sponsor	City of Benicia Planning and Building Department to ensure that rare plant surveys are conducted according to appropriate protocol (including that of the California Native Plant Society, California Department of Fish and Game, and U.S. Fish and Wildlife Service).	No issuance of any site-specific grading or building permit.	Rare plant surveys for potential habitat areas.	Prior to issuance of any site-specific grading or building permit.
	BIO-3b: If no special-status plant populations are identified, the botanist shall prepare and submit a report to the City documenting the negative findings of the survey. At a minimum, the report shall include a list of the target species for which surveys were conducted, dates of surveys, names of surveyors, and a list of all plants observed. No additional mitigation shall be required if special-status plants are not found during the protocol-level surveys.	If special-status plant populations are not identified, the project sponsor's qualified botanist shall document the negative findings in accordance with Mitigation Measure BIO-3b.	Project sponsor	City of Benicia Planning and Building Department to verify that negative rare plant survey findings are appropriately documented.	No issuance of any site-specific grading or building permit.	Documentation of negative findings for rare plant surveys.	Prior to issuance of any site-specific grading or building permit.
	BIO-3c: If special-status plant populations are observed, a mitigation and monitoring plan shall be developed by the applicant of individual development projects to avoid and/or compensate for the loss of special-status plant populations. Plants designated as endangered, threatened, candidate, or rare under the federal or State Endangered Species Acts, or listed on the CNPS List 1B or CNPS List 2 shall be mitigated either by avoidance or through compensatory mitigation. The mitigation monitoring and reporting plan shall be prepared in accordance with the following guidelines:	The project sponsor shall work with the botanist to develop and implement a mitigation and monitoring plan for special-status plant populations observed within the development site, as specified in Mitigation Measure BIO-3c.	Project sponsor	City of Benicia Planning and Building Department to review and approve the mitigation monitoring and reporting plan for impacts to special-status plant species.	No issuance of any site-specific grading or building permit.	Mitigation and monitoring plan for impacts to special-status plant species.	Prior to issuance of any site-specific grading or building permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-3 *Continued*	• Whenever feasible, special-status plant populations should be avoided and the populations protected in place. Avoidance measures may include fencing the existing plants with Environmentally Sensitive Area (ESA) fencing prior to construction, establishing a buffer zone of at least 20 feet around rare plant populations, and implementing a training program for construction personnel to ensure avoidance of the preserved plant populations. • If impacts to special-status plant populations are unavoidable, the project sponsor shall mitigate for the impact by preserving existing plant populations of the same species at an offsite mitigation site at a minimum 2:1 ratio (2 acres of occupied habitat preserved for each acre of occupied habitat impacted). • The project sponsor shall develop a mitigation and monitoring plan for the plants that are impacted and submit the plan to the City and the appropriate resource agency (CDFG, USFWS) for approval. • A conservation easement shall be established over the mitigation site to preserve it in perpetuity as rare plant habitat. The City of Benicia or other public resource agency shall hold the easement to ensure retention of this land in perpetuity. • The project sponsor shall provide financial assurances of a type (i.e., bond, letter of credit) and amount to be determined by the City and CDFG to ensure successful implementation of the rare plant mitigation plan. The project sponsor shall also provide a long-term funding mechanism for the maintenance of the mitigation site in the conservation easements in perpetuity.						

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-4: Development on the project site may result in the loss of nesting habitat for breeding birds, and may result in direct take of special-status bird species through injury or mortality.	BIO-4a: Prior to tree pruning, tree removal, ground disturbing activities, or construction activities associated with individual development projects, a qualified biologist shall conduct raptor and passerine nest surveys to locate any active nests on or immediately adjacent to the site. Preconstruction surveys shall be conducted no more than 14 days prior to the start of pruning, construction, or ground disturbing activities if the activities occur during the nesting season (February 1 and August 31). Preconstruction surveys shall be repeated at 30-day intervals until construction has been initiated in the area. Locations of active nests shall be described and protective measures implemented. Protective measures shall include establishment of clearly delineated (i.e., orange construction fencing) avoidance areas around each nest site that are a minimum of 300 feet from the dripline of the nest tree or nest for raptors and 50 feet for passerines. The active nest sites within an exclusion zone shall be monitored on a weekly basis throughout the nesting season to identify any signs of disturbance. These protection measures shall remain in effect until the young have left the nest and are foraging independently or the nest is no longer active. A report shall be submitted to the City at the end of the construction season documenting the observations made during monitoring.	1) The project sponsor shall retain a qualified biologist to conduct raptor and passerine nest surveys prior to tree disturbance activities, in accordance with Mitigation Measure BIO-4a. 2) The project sponsor shall ensure that the construction contractor implements nest protection measures, including the establishment of exclusion zones, and shall retain a wildlife biologist to monitor nests during construction.	Project sponsor	City of Benicia Planning and Building Department to: 1) Review and approve the raptor and passerine nest surveys. 2) Visit the site to ensure that nest protection measures have been established. 3) Review and approve the nest monitoring report.	1) No issuance of any site-specific grading or building permit 2) Non-compliance sanctions imposed by City agencies may include citations or revocation of permits.	Raptor and passerine nest surveys and protection measures in accordance with Mitigation Measure BIO-4a, as applicable.	1) Prior to issuance of any site-specific grading or building permit. 2) Periodically during the construction period, at the discretion of the Planning and Building Department. 3) After report is submitted.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-4 *Continued*	BIO-4b: A preconstruction survey shall be conducted no more than 30 days prior to modification, demolition, or removal of buildings. If no owls are observed, then demolition or removal may proceed. If owls are observed during the preconstruction survey, a determination shall be made on whether birds are roosting or nesting. If a single owl is roosting, demolition or removal of the structure can proceed after the owl has been persuaded to move from the roost area. Non-invasive techniques include light shining into the roost space for one or two nights and days. If barn owls (or other owls species) are found to be actively nesting in the barn, work on or demolition of the structure shall be postponed until one of the following conditions have been met: 1) a qualified biologist monitoring the nest determines that the owls have abandoned the nest without any outside interference or 2) a qualified biologist monitoring the nest has determined that the young have fledged and are capable of relocating and using another roost site. Under either scenario, the monitor shall ensure that all owls have left the building prior to construction or demolition activities. Once the young have fledged, non-invasive techniques may be used to encourage the owls to leave the barn. The barn owl nesting period is typically between February 15 and July 15. Buildings being used by nesting owls shall be fenced and designated off-limits to prevent entry into the buildings.	1) The project sponsor shall retain a wildlife biologist to conduct a pre-construction survey no more than 30 days prior to the modification, demolition, or removal of buildings and to make a determination on whether owls present are roosting or nesting. 2) If owls are observed, the project sponsor shall ensure the biologist persuades the owls to leave the barn (as appropriate), or halts all demolition activity until the criteria outlined in Mitigation Measure BIO-4b have been met.	Project sponsor	City of Benicia Planning and Building Department to: 1) Review and approve the pre-construction survey. 2) Verify that all owl protection measures are in place, and that owls leave any occupied buildings prior to demolition.	No issuance of demolition permit.	Owl survey and compliance with Mitigation Measure BIO-4b.	Prior to issuance of demolition permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-5: Development on the project site may result in the loss of western burrowing owl habitat and direct take of this species through injury or mortality.	BIO-5a: Preconstruction surveys shall be conducted for burrowing owls in all potential habitat areas of the site (i.e., all areas shown as containing seasonal wetlands, ruderal/non-native grasslands, or native and non-native trees on Figure IV.F-1 of the Draft EIR) prior to preparation, grading, and construction of sites for individual development projects. These surveys shall conform to the survey protocol established by the California Burrowing Owl Consortium. Preconstruction surveys shall be conducted no more than 30 days prior to the initiation of construction activities and at 30-day intervals if construction activities have not been initiated in an area. The following measures shall also apply: a) If burrowing owls are found onsite, they shall be avoided to the extent practicable. A clearly defined area (i.e., an area demarcated by orange construction fencing) shall be established around each burrowing owl burrow to be avoided. No disturbance shall occur within 160 feet (50 meters) of occupied burrows during the non-breeding season (September 1 through January 31) or within 250 feet (75 meters) of an occupied burrow during the breeding season (February 1 through August 31). b) If burrowing owls occur at the development site and construction would begin before February or after the end of August, and the burrows cannot be avoided, then passive relocation techniques may be used to relocate owls from the site. These passive relocation techniques would include excavating all potential burrows after excluding owls from the burrow for the required length of time. Passive relocation shall be undertaken according to the current protocol established by the CDFG.	1) The project sponsor shall retain a wildlife biologist to conduct pre-construction surveys for burrowing owls, in all potential habitat areas, that conform to the protocol established by the California Burrowing Owl Consortium. 2) If burrowing owls are identified on the site, the project sponsor shall ensure that construction avoids all owls, or that removal/relocation of owls (and associated mitigation) occurs in accordance with Mitigation Measure BIO-5a and the requirements of CDFG.	Project sponsor	City of Benicia Planning and Building Department to: 1) Review and approve the burrowing owl surveys. 2) Verify that burrowing owls have been treated in compliance with the requirements of CDFG, and/or that mitigation has been provided as required by CDFG.	1) No issuance of any site-specific grading or building permit. 2) Non-compliance sanctions imposed by City agencies may include citations or revocation of permits.	Burrowing owl survey and removal/ relocation plan in accordance with Mitigation Measure BIO-5a and the requirements of CDFG.	Prior to issuance of any site-specific grading or building permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-5 *Continued*	Artificial burrows shall be provided on the mitigation site for each occupied burrow destroyed at the project site at a ratio of 2:1 (two artificial burrows created for each occupied burrow destroyed). c) If western burrowing owl occurs at the development site and construction would begin during the breeding season (February through August), then a buffer of a radius of 250 feet (75 meters) shall be established around any burrows containing owls. d) Removal of burrowing owls at development site shall conform to the requirements of CDFG's *Staff Report on Burrowing Owl Mitigation*. This shall entail establishing 6.5 acres of suitable habitat for each pair of burrowing owls displaced from the project site. These 6.5 acres shall be adjacent to an area already used by burrowing owls. The replacement mitigation site shall be preserved in perpetuity for use as burrowing owl and wildlife habitat through a conservation easement. The project sponsor shall develop a management plan for the mitigation site and submit the plan to the City and CDFG for approval. An endowment in an amount determined by the City and CDFG for management and monitoring the mitigation site shall also be established by the project sponsor.						

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-5 *Continued*	BIO-5b: As an alternative to purchasing land as mitigation for burrowing owls, the project sponsor may purchase credits at a CDFG-approved mitigation bank authorized to sell credits for burrowing owl mitigation. The City of Benicia shall be included in the service area of the mitigation bank. The number of credits to be purchased shall be equivalent to purchasing 6.5 acres per pair or single bird observed on the site. The final mitigation requirement shall be determined following the completion of the protocol-level survey. The sponsor shall provide the City with evidence of completion of the mitigation or purchase of mitigation credits at least 60 days prior to the initiation of construction activities.	The project sponsor shall purchase credits at a CDFG-approved mitigation bank if off-site burrowing owl mitigation is required, but off-site habitat is not purchased and preserved.	Project sponsor	City of Benicia Planning and Building Department to verify that mitigation land or credits at a burrowing owl mitigation bank have been purchased.	No issuance of any site-specific grading or building permit.	Purchase of credits at CDFG-approved mitigation bank.	Prior to issuance of any site-specific grading or building permit and at least 60 days prior to issuance of construction activities.
BIO-6: Development on the project site may result in the loss of foraging and roosting habitat for the pallid bat, Townsend's western big-eared bat, and other bat species, and may result in direct take of these species through injury or mortality.	BIO-6a: Preconstruction surveys for bat roosts shall be conducted in all buildings or trees that will be removed or modified. The survey shall take place no more than 30 days prior to construction/ demolition/removal activities. Preconstruction surveys shall be repeated if demolition or construction activities are delayed more than 30 days.	The project sponsor shall retain a qualified wildlife biologist to conduct preconstruction bat roost surveys.	Project sponsor	City of Benicia Planning and Building Department to review and approve the bat roost survey.	No issuance of any site-specific grading or building permit.	Bat roost surveys.	Prior to issuance of any site-specific grading or building permit.
	BIO-6b: If a bat roost is found in a building or tree cavity, the species of bat using the roost shall be identified and methods to encourage the bats to leave the roost or to prevent them from returning to the roost shall be implemented prior to roost removal. A mitigation plan shall be developed to specify the methods to be used and the timing of the activities, and this mitigation plan shall be submitted to the City for review and approval.	The project sponsor shall retain a biologist to develop a mitigation plan to encourage bats to leave roosts or to prevent them from returning to roosts.	Project sponsor	City of Benicia Planning and Building Department to review and approve the bat removal mitigation plan.	No issuance of any site-specific grading or building permit.	Mitigation plan for bat roosts, if applicable.	Prior to issuance of any site-specific grading or building permit.
	BIO-6c: Materials from roost sites shall be salvaged, when feasible, to be used in the construction of artificial roosts.	The project sponsor shall salvage materials from roost sites and use the materials to construct artificial roosts.	Project sponsor	City of Benicia Planning and Building Department to verify that native roost materials are used to construct artificial roosts.	No issuance of any site-specific grading or building permit.	Artificial roosts, which incorporate materials from roost sites, if applicable.	Prior to issuance of any site-specific grading or building permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
BIO-6 *Continued*	BIO-6d: If special-status bats (i.e., pallid bat, Townsend's western big-eared bat) are found onsite, and the roost would be destroyed during development, an artificial roost shall be provided for the bats. The roost shall be constructed and placed onsite prior to removal of the original roost. A mitigation plan specifying the construction details and siting of the structure shall be prepared and approved by the City and CDFG prior to removal of the existing roost. The project sponsor shall provide a secure source of funding for the monitoring of the artificial roost for a period of at least 5 years. A report documenting the implementation of the plan shall be provided to the City within 1 month of completion of the artificial roost. The plan shall be completed and implemented prior to the issuance of the grading permit.	1) The project sponsor shall retain a wildlife biologist to prepare a mitigation plan that includes construction details of artificial roosts if special-status bats are present on the project site. 2) The project sponsor shall provide a secure source of funding for monitoring the mitigation plan and shall provide a report documenting implementation of the plan.	Project sponsor	City of Benicia Planning and Building Department to review and approve mitigation/ implementation plan and verify CDFG approval.	No issuance of any site-specific grading or building permit.	Bat roost mitigation plan that meets the requirements of Mitigation Measure BIO-6d.	Prior to issuance of any site-specific grading or building permit.
	BIO-6e: Removal of maternity roosts for special-status bats shall be coordinated with CDFG prior to removal. Maternity roosts for any species of bat, either common or special-status, shall not be demolished until the young are able to fly independently of their mothers.	The project sponsor shall coordinate with CDFG regarding removal of maternity roosts for special-status bats.	Project sponsor	City of Benicia Planning and Building Department to verify that project sponsor has undertaken and completed coordination with CDFG regarding removal of maternity roosts.	No issuance of any site-specific grading or building permit.	Verification of successful coordination with CDFG.	Prior to issuance of any site-specific grading or building permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
G. TRANSPORTATION AND CIRCULATION							
TRANS-1: Unacceptable LOS at the intersection of **East 5th Street / I-780 Westbound Ramps**. The effect of project traffic would result in the intersection operating at LOS F with a delay of over 50.0 seconds for both the AM and PM peak hours.	TRANS-1: The project sponsor of an individual development project shall contribute a pro-rata share to the following improvement: Signalize intersection as it meets the Peak Hour Volume Signal Warrant for the AM and PM peak hours. This intersection operates at unacceptable conditions and meets signal warrants prior to the addition of project-related traffic. Implementation of the identified improvement would result in this intersection operating at an acceptable LOS B with delays of 11.7 and 12.5 seconds for the AM and PM peak hours, respectively.	The project sponsor shall contribute the pro-rata fair-share for improvements to the East 5th Street/I-780 Westbound Ramps intersection.	Project sponsor	City of Benicia Public Works Department to ensure that the project sponsor has paid the pro-rata fair share for the improvement.	No issuance of an occupancy permit.	Improvements in accordance with Mitigation Measure TRANS-1.	Prior to issuance of an occupancy permit.
TRANS-2: Unacceptable LOS at the intersection of **East 5th Street / I-780 Eastbound Ramps**. The effect of project traffic would result in the intersection operating at LOS E with a delay of 44.6 seconds during the PM peak hour.	TRANS-2: The project sponsor of an individual development project shall contribute a pro-rata share to the following improvement (sponsors of development associated with buildout of the Draft Specific Plan shall together fund the entirety of this improvement): Signalize intersection as it meets the Peak Hour Volume Signal Warrant for the PM peak hour. Implementation of the identified improvement would result in this intersection operating at an acceptable LOS B with 14.5 seconds of delay during the PM peak hour.	The project sponsor shall contribute the pro-rata fair-share for improvements to the East 5th Street/I-780 Eastbound Ramps intersection.	Project sponsor	City of Benicia Public Works Department to ensure that the project sponsor has paid the pro-rata fair share for the improvement.	No issuance of an occupancy permit.	Improvements in accordance with Mitigation Measure TRANS-2.	Prior to issuance of an occupancy permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
TRANS-3: Unacceptable LOS at the intersection of East 5th Street / I-780 Westbound Ramps. The effect of project traffic would result in the intersection operating at LOS F with a delay of over 50.0 seconds for both the AM and PM peak hours.	TRANS-3: The project sponsor of an individual development project shall contribute a pro-rata share to the following improvement: Signalize intersection as it meets the Peak Hour Volume Signal Warrant for the AM and PM peak hours. This intersection operates at unacceptable conditions and meets signal warrants prior to the addition of project-related traffic. Implementation of the identified improvement would result in this intersection operating at an acceptable LOS B with delays of 12.1 and 16.6 seconds for the AM and PM peak hours, respectively.	The project sponsor shall contribute the pro-rata fair-share for improvements to the East 5th Street/I-780 Westbound Ramps intersection.	Project sponsor	City of Benicia Public Works Department to ensure that the project sponsor has paid the pro-rata fair share for the improvement.	No issuance of an occupancy permit.	Improvements in accordance with Mitigation Measure TRANS-3.	Prior to issuance of an occupancy permit.
TRANS-4: Unacceptable LOS at the intersection of East 5th Street / I-780 Eastbound Ramps. The effect of project traffic would result in the intersection operating at LOS F with a delay of over 50.0 seconds for both the AM and PM peak hours.	TRANS-4: The project sponsor of an individual development project shall contribute a pro-rata share to the following improvement: Signalize intersection as it meets the Peak Hour Volume Signal Warrant for the AM and PM peak hours. Reconfigure the northbound approach to provide one left-turn lane, one through lane, and one right-turn lane. Implementation of the identified improvement would result in this intersection operating at an acceptable LOS B with delays of 15.5 and 14.9 seconds for the AM and PM peak hours, respectively.	The project sponsor shall contribute the pro-rata fair-share for improvements to the East 5th Street/I-780 Eastbound Ramps intersection.	Project sponsor	City of Benicia Public Works Department to ensure that the project sponsor has paid the pro-rata fair share for the improvement.	No issuance of an occupancy permit.	Improvements in accordance with Mitigation Measure TRANS-4.	Prior to issuance of an occupancy permit.
TRANS-5: Unacceptable LOS at the intersection of East 2nd Street / Military East. The effect of project traffic would result in the intersection operating at LOS E with a delay of 57.1 seconds during the PM peak hour.	TRANS-5: The project sponsor of an individual development project shall contribute a pro-rata share to the following improvement: Overlap the southbound right turn with the eastbound left turn phase, and re-time the signal. Implementation of the identified improvement would result in this intersection operating at an acceptable LOS D with 42.5 seconds of delay during the PM peak hour.	The project sponsor shall contribute the pro-rata fair-share for improvements to the East 2nd Street/Military East intersection.	Project sponsor	City of Benicia Public Works Department to ensure that the project sponsor has paid the pro-rata fair share for the improvement.	No issuance of an occupancy permit.	Improvements in accordance with Mitigation Measure TRANS-5.	Prior to issuance of an occupancy permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
TRANS-6: Unacceptable LOS at the intersection of **Park Road / Industrial Way**. The effect of project traffic would result in the intersection operating at LOS E with delays of 41.3 and 43.6 seconds during the AM and PM peak hours, respectively.	TRANS-6: The project sponsor of an individual development project shall contribute a pro-rata share to the following improvement: Signalize intersection as it meets the Peak Hour Volume Signal Warrant for the AM and PM peak hours. Implementation of the identified improvement would result in this intersection operating at an acceptable LOS B with delays of 14.5 and 13.8 seconds for the AM and PM peak hours, respectively.	The project sponsor shall contribute the pro-rata fair-share for improvements to the Park Road/Industrial Way intersection.	Project sponsor	City of Benicia Public Works Department to ensure that the project sponsor has paid the pro-rata fair share for the improvement.	No issuance of an occupancy permit.	Improvements in accordance with Mitigation Measure TRANS-6.	Prior to issuance of an occupancy permit.
TRANS-7: Unacceptable LOS at the intersection of **Park Road / Bayshore Road**. The effect of project traffic would result in the intersection operating at LOS F with delays of over 50.0 seconds during both the AM and PM peak hours.	TRANS-7: The project sponsor of an individual development project shall contribute a pro-rata share to the following improvement: Reconfigure the southbound approach to provide two exclusive left-turn lanes, and one shared through-right lane. Reconfigure the westbound approach to provide one shared through-left lane, and two exclusive right-turn lanes. Implementation of the identified improvement would result in this intersection operating at an acceptable LOS B and LOS C with delays of 14.5 and 17.6 seconds for the AM and PM peak hours, respectively.	The project sponsor shall contribute the pro-rata fair-share for improvements to the Park Road/Bayshore Road intersection.	Project sponsor	City of Benicia Public Works Department to ensure that the project sponsor has paid the pro-rata fair share for the improvement.	No issuance of an occupancy permit.	Improvements in accordance with Mitigation Measure TRANS-7.	Prior to issuance of an occupancy permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
TRANS-8: Temporary transportation impacts would result from truck movements and construction worker vehicles traveling to and from the project site.	TRANS-8: Prior to the issuance of each building permit, the project sponsor of an individual development project and construction contractor shall meet with the Benicia Public Works Department and other appropriate City of Benicia agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of the project. The project sponsor shall develop a construction management plan for review and approval by the City Public Works Department. The plan shall include at least the following items and requirements: • A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, provisions for truck queuing, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. • Identification of any transit stop relocations. • Provisions for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces. • Identification of parking space removal and any relocation of parking for employees, and public parking during construction. • Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.	The project sponsor and construction contractor shall meet with the City of Benicia Public Works Department and other City agencies prior to the issuance of building or grading permits for individual development projects to prepare traffic management strategies which incorporate the performance standards listed in Mitigation Measure TRANS-8.	Project sponsor	City of Benicia Public Works Department to ensure that traffic management measures are established and that construction personnel are in compliance with these measures.	No issuance of any site-specific grading or building permit.	Traffic management strategies which comply with the requirements of Mitigation Measure TRANS-8.	Prior to issuance of a site-specific grading or building permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
TRANS-8 *Continued*	• Provisions for accommodation of pedestrian flow. • No construction traffic shall be allowed on East 5th Street south of Military East. • Location of construction staging areas for materials, equipment, and vehicles. • Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provisions for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project sponsor. • A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager.						
TRANS-9: High volumes of heavily laden trucks have an incremental impact on the condition of streets and highways.	TRANS-9: The project sponsor of an individual development project shall prepare an overall construction traffic management plan to limit the effects of trucks and other construction traffic on surface conditions of area roads and intersections. This plan shall be prepared in coordination with the City of Benicia, and shall include the following provisions:	1) The project sponsor, working with City staff, shall prepare a construction traffic management plan and an existing conditions report of truck access route roadways. 2) The project sponsor shall make improvements to area roadways damaged by construction-related traffic throughout the construction phase of the project.	Project sponsor	City of Benicia Public Works Department to: 1) Review and approve the construction traffic management plan and truck route existing conditions report. 2) Examine roadways around the project site the project site to assess damage to the street surface pavement incidental to the construction activities.	1) No issuance of any site-specific grading or building permit. 2) Non-compliance sanctions which may include citations or revocation of occupancy permits.	Construction traffic management plan and improvements in accordance with Mitigation Measure TRANS-9.	1) Prior to issuance of any site-specific grading or building permit. 2) Periodically throughout the project construction period. 3) Following the end of the construction period.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
TRANS-9 *Continued*	• Prior to implementation of the proposed project, the project sponsor shall survey the condition of truck access route roadways and prepare an existing conditions report to document roadway baseline conditions. • During the construction of the project, or periodically throughout the project's construction period, the project sponsor shall make periodic improvements to area roadways to maintain minimum standards, including clean-up of construction debris (e.g., sand and gravel) and spot repaving of potholes or other severe pavement section damage. • Upon completion of all or most project construction activities, the project sponsor shall identify any impacts to roadway conditions. The project sponsor will install improvements and/or pay an impact fee to mitigate any damages to the existing street pavements on Military East and East 5th Street to/from the project site caused by heavy construction traffic accessing the project site.	3) Upon completion of project construction the project sponsor shall repair or pay mitigation fees for any damage to existing street surfaces caused by construction equipment or vehicles during the construction phase of the project.		3) Provide a cost estimate for roadway damages to the project sponsor, and ensure that the project sponsor installs or funds needed repairs.	3) Non-compliance sanctions which may include citations or revocation of occupancy permits.		

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
H. AIR QUALITY							
AIR-1: Demolition and construction period activities could generate significant dust, exhaust, and organic emissions.	AIR-1: Consistent with guidance from the BAAQMD, the following actions shall be required of construction contracts and specifications for individual development projects: *Demolition.* The following controls shall be implemented during demolition: 1) Water during demolition of structures and break-up of pavement to control dust generation; 2) Cover all trucks hauling demolition debris from the site; and 3) Use dust-proof chutes to load debris into trucks whenever feasible. *Construction.* The following controls shall be implemented at all construction sites: 1) Water all active construction areas at least twice daily and more often during windy periods; active areas adjacent to existing land uses shall be kept damp at all times, or shall be treated with non-toxic stabilizers to control dust; 2) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard; 3) Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites; 4) Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites; water sweepers shall vacuum up excess water to avoid runoff-related impacts to water quality;	The project sponsor shall ensure that the construction contractor fully implements all air quality dust control measures as required by the BAAQMD and Mitigation Measure AIR-1.	Project sponsor	City of Benicia Planning and Building Department to conduct regular site inspections throughout the construction period to ensure that construction period air pollution control measures are being implemented on the site.	Non-compliance sanctions which may include citations or revocation of permits.	Construction period air pollution controls.	Regularly throughout the construction period at the discretion of the Planning and Building Department.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
AIR-1 *Continued*	5) Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets; 6) Apply non-toxic soil stabilizers to inactive construction areas; 7) Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.); 8) Limit traffic speeds on unpaved roads to 15 mph; 9) Install sandbags or other erosion control measures to prevent silt runoff to public roadways; 10) Replant vegetation in disturbed areas as quickly as possible. 11) Install base rock at entryways for all exiting trucks, and wash off the tires or tracks of all trucks and equipment in designated areas before leaving the site; and 12) Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. 13) Implementation of this mitigation measure would reduce construction period air quality impacts to a less-than-significant level.						

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
AIR-2: The proposed project could expose future residents within the Lower Arsenal Specific Plan to potentially high cancer risks from exposure to diesel emissions from the adjacent port operations.	AIR-2: To determine if a specific development proposal would expose sensitive receptors to toxic air contaminants in excess of the BAAQMD significance criteria, the project proponent of a residential project shall coordinate with the BAAQMD to prepare a health risk assessment specific to the development parcel proposed for residential use. The assessment shall incorporate emissions sources from activities associated with the Port of Benicia. Residential sites that are determined to exceed a probability of contracting cancer for the Maximally Exposed Individual (MEI) of 10 in 1 million or have ground-level concentrations of non-carcinogenic toxic air contaminants that would result in a Hazard Index greater than 1 for the MEI shall incorporate interior air filtration systems that would reduce the cancer risk or hazard index to below the BAAQMD significance criteria.	1) Project sponsors for residential projects shall coordinate with the BAAQMD to prepare a health risk assessment in accordance with Mitigation Measure AIR-2. 2) The recommendations of the health risk assessment shall be implemented for sites that exceed the residential threshold for cancer risk.	Project sponsor	The City of Benicia' Planning and Building Department to verify completion and implementation of the recommendations of a health risk assessment for residential sites.	No issuance of a grading or building permit.	Health risk assessment for residential sites.	Prior to issuance of a grading or building permit.
I. NOISE							
NOI-1: Construction period activities could create significant short-term noise impacts on adjacent residential properties and on buildings that are currently or would become occupied within the Plan Area before completion of Specific Plan buildout.	NOI-1a: During all on-site excavation and grading, the project contractors for individual development projects shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. All heavy construction equipment used on project sites within the Plan Area shall be maintained in good operating condition, with all internal combustion, engine-driven equipment equipped with intake and exhaust mufflers that are in good condition. "Quiet" models of air compressors and other stationary noise sources shall be utilized where such technology exists.	The project sponsor shall ensure that the construction contractor's equipment is equipped with functional mufflers and maintained in good operating condition in accordance with Mitigation Measure NOI-1a.	Project sponsor	City of Benicia Planning and Building Department to verify that all construction equipment is equipped with adequate mufflers, and maintained in good operating condition	Non-compliance sanctions which may include citations or revocation of permits.	Functional mufflers and other "quiet" measures for all contractor equipment.	Ongoing throughout the construction period.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
NOI-1 *Continued*	NOI-1b: The project contractors for individual development projects shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the construction site.	The project sponsor shall ensure that the construction contractor places all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.	Project sponsor	City of Benicia Planning and Building Department to verify that all construction equipment is appropriately sited.	Non-compliance sanctions which may include citations or revocation of permits.	Verification that all construction equipment is directed away from sensitive receptors.	Ongoing throughout the construction period.
	NOI-1c: The construction contractors for individual development projects shall locate equipment staging in areas that will create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the construction site during all project construction. The construction contractors shall post signs prohibiting unnecessary idling of internal combustion engines.	The project sponsor shall ensure that the construction contractor locates equipment staging in areas such that emitted noise is directed away from sensitive receptors nearest the construction site, and posts signs prohibiting the unnecessary idling of engines.	Project sponsor	City of Benicia Planning and Building Department to verify that all equipment staging is appropriately sited and that appropriate signs are posted.	Non-compliance sanctions which may include citations or revocation of permits.	Verification that all equipment staging is appropriately sited and appropriate signs are posted.	Ongoing throughout the construction period.
	NOI-1d: The contractors for individual development projects shall further designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (e.g. beginning work too early, bad muffler) and institute reasonable measures warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at all construction sites within the Plan Area.	The project sponsor shall ensure that the construction contractor designates a "noise disturbance coordinator" in accordance with Mitigation Measure NOI-1d.	Project sponsor	City of Benicia Planning and Building Department to verify designation of a noise disturbance coordinator.	Non-compliance sanctions which may include citations or revocation of permits.	Verification of a designated noise disturbance coordinator.	Ongoing throughout the construction period.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
K. CULTURAL AND PALEONTOLOGICAL RESOURCES							
CULT-1: Ground disturbance in the form of building construction parking lot construction, street construction, street tree planting, building demolition, the redevelopment of open spaces, or other ground disturbance may result in a significant impact to unrecorded cultural resources, including human remains.	CULT-1a: Prior to implementation of individual development projects, a qualified archaeologist shall: (1) assess the potential for subsurface archaeological remains that may meet the definition of historical or archaeological resources and may be adversely affected by project activities; and (2) make project-specific recommendations, as warranted, about the treatment of such resources such that the eligibility of significant resources is maintained, or, if this is not feasible, the resource's loss of eligibility is offset by appropriate mitigation (e.g., data recovery excavation). The City shall ensure that the treatment recommendations of the consulting archaeologist are implemented prior to project construction, or any actions that could adversely affect the resource in question. A report of the results of this archaeological assessment shall be submitted to the project proponent, the City and the Northwest Information Center (NWIC).	The project sponsor shall retain a qualified archaeologist to: 1) Assess the potential for subsurface archaeological remains. 2) Make project-specific recommendations, as warranted. 3) Prepare a report of the results and submit to the City and the NWIC.	Project sponsor	City of Benicia Planning and Building Department to ensure that the treatment recommendations of the consulting archaeologist are implemented.	No issuance of a grading or building permit.	Identification of and recommendations for the treatment of subsurface archeological deposits.	Prior to issuance of a grading or building permit.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
CULT-1 *Continued*	CULT-1b: If unidentified archaeological deposits are discovered during construction activities associated with individual development projects, all work within 25 feet of the find shall be redirected. A qualified archaeologist shall: 1) evaluate the finds to determine if they meet the definition of a historical or archaeological resource; and 2) make recommendations regarding the treatment of such finds. If the finds do not meet the definition of a historical or archaeological resource, then no further study or protection is necessary prior to project implementation. If the finds do meet the definition of a historical or archaeological resource, then they shall be avoided by project activities. If avoidance is not feasible, impacts to such resources shall be mitigated in accordance with the recommendations of the evaluating archaeologist. The City shall ensure that the treatment recommendations of the consulting archaeologist are implemented prior to project construction or actions that could adversely affect the resource in question. Project personnel shall not collect or move any cultural material. Fill soils that may be used for construction purposes shall not contain archaeological materials. Upon completion of the archaeological evaluation, a report documenting the methods, results, and recommendations of the archaeologist shall be prepared and submitted to the project proponent, the City and the NWIC.	1) In the event that unidentified archaeological deposits are discovered during construction activities the project sponsor shall ensure that the construction contractor halts all activity within 25 feet of the discovery. 2) The project sponsor shall retain a qualified archeologist to evaluate the finds and make recommendations. 3) The qualified archeologist shall complete a report documenting the methods, results, and recommendations, and submit this report to the City and NWIC.	Project sponsor	The City of Benicia Planning and Building Department to: 1) Verify that, in the event an unidentified archeological deposit is discovered, all work within 25 feet of the find is redirected. 2) Verify that an archaeologist is retained to evaluate the materials. 3) Review and approve the archaeological report as adequate.	Non-compliance sanctions which may include citations or revocation of permits.	Archeological report and appropriate treatment of archeological resources, if applicable.	During the construction period.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
CULT-1 *Continued*	CULT-1c: If human remains are encountered by project activities, construction activities shall be halted and the County Coroner shall be notified immediately. If the remains are of Native American origin, the Coroner shall notify the NAHC within 24 hours of this identification, and a qualified archaeologist shall be contacted to assess the situation. The NAHC shall identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. The City shall ensure that the treatment recommendations of the consulting archaeologist and MLD are implemented prior to project construction or actions that could adversely affect the remains in question. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations regarding the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. This report shall be submitted to the project proponent, the City, and the NWIC.	1) If human remains are encountered by project activities the project sponsor shall ensure that the construction contractor notifies the City of Benicia and the County Coroner promptly. 2) The project sponsor shall retain a qualified professional archeologist to recover scientifically valuable data if the remains are of Native American origin. If the remains are of Native American origin, the Coroner shall notify the NAHC promptly.	Project sponsor	City of Benicia Planning and Building Department to: 1) Verify that, in the event human remains are discovered, the appropriate agencies are contacted, and an archaeologist is retained to evaluate the materials. 2) Review and approve the archaeological report as adequate.	Non-compliance sanctions which may include citations or revocation of permits.	Archeological report and appropriate treatment of human remains, if applicable.	During the construction period.
CULT-2: The construction of new buildings and roads could adversely affect the setting of Historic District C.	CULT-2a: The Draft Specific Plan contains several policies and design approaches that would avoid or lessen the severity of impact CULT-2. The form, materials, and massing of new construction shall be designed to complement the architectural style and setting of the zone, as well as provide sight lines and view corridors to retain the visual character of the Arsenal as a whole. The City shall ensure that the guidance provided in the Draft Specific Plan is followed with respect to new construction. Once formal plans for the new buildings proposed at the southern and northern boundaries of Officers' Square are prepared, these shall be reviewed by a qualified architectural historian or	1) The project sponsor shall retain a qualified architectural historian or preservation architect to ensure that design plans for new construction are in accordance with Mitigation Measure CULT-2a. 2) The architectural historian or preservation architect shall prepare a report documenting	Project sponsor	The City of Benicia Planning and Building Department and the Benicia Historic Preservation Review Commission to review and approve the report and final deign plans for compliance with Mitigation Measure CULT-2a.	No approval of final design plans	New building design to comply with Draft Specific Plan and recommendations of the qualified architectural historian as specified in Mitigation Measure CULT-2a.	Prior to approval of final design plans.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
		recommendations.					
CULT-2 *Continued*	preservation architect to ensure that the designs do not result in a "substantial adverse change" to the historical resources of the Jefferson Ridge/Officers' Row Zone and the Benicia Arsenal Historic District. The architectural historian or preservation architect shall prepare a report that includes recommendations, as warranted, for design changes to the new buildings so as to avoid or mitigate impacts to historical resources. The report recommendations shall be incorporated in the final design of the new buildings, which must be approved by the Benicia Historic Preservation Review Commission prior to construction. In addition, the pre-project conditions of the new construction locations shall be documented through landscape photography to document the setting prior to alteration. A report shall also be prepared that documents the history and setting of Jefferson Ridge prior to alteration. The photographs may vary in format and perspective, but shall at a minimum document important sight lines and visual axes that may be impaired by the introduction of new buildings. The photographic documentation shall be prepared in accordance with the *HABS/HAER Photographs: Specifications and Guidelines* (2001) and shall supplement the existing Historic American Building Survey documentation of the Arsenal, and shall be included in the report and in an update of the DPR 523 record of National Register District C. A copy of the report and photodocumentation shall be submitted to the City, the Benicia Museum, the Benicia Public Library, and the Northwest Information Center.	3) Findings of the report shall be incorporated into the final design of new buildings. 4) Pre-project conditions shall be documented in accordance with Mitigation Measure CULT-2a.					

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
CULT-2 *Continued*	CULT-2b: Historical photographs and/or maps, accompanied by text, shall be presented as part of an interpretative display describing the original configuration of Jefferson Ridge as well as the area's historical significance. This interpretative display shall be developed in consultation with the Benicia Historical Museum and the Benicia Historical Society.	The City of Benicia, in consultation with the Benicia Historical Museum and the Benicia Historical Society shall develop an interpretive display in accordance with Mitigation Measure CULT-2b.	City of Benicia	The Benicia Historical Museum and the Benicia Historical Society to review the interpretive display.	No approval of final design plans.	Interpretive display for Jefferson Ridge.	Prior to approval of final design plans.
CULT-3: The creation of open spaces such as the Clocktower Green and Cork Oak Ridge Park could result in significant impacts to cultural resources.	CULT-3: Implement Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.
CULT-4: The creation of new roads and the extension of existing roads could result in a significant impact to cultural resources.	CULT-4: Implement Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.
CULT-5: The development of the Adams Street Zone could adversely affect cultural resources.	CULT-5: Implement Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.
CULT-6: The development of the Grant Street Zone could disturb intact archaeological deposits.	CULT-6: Implement Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
CULT-7: The construction of new buildings could adversely affect the setting of Historic District D.	CULT-7a: The Draft Specific Plan contains several policies and design approaches that would avoid or lessen the severity of impact CULT-7. The form, materials, and massing of new construction shall be designed to complement the architectural style and setting of the zone, as well as maintain sight lines and view corridors identified in the Conservation Plan to retain the visual character of the Arsenal as a whole. The City shall ensure that the guidance provided in the Draft Specific Plan is followed with respect to new construction. Once formal plans for new buildings proposed for the South of Grant Street Zone are prepared, these shall be reviewed by a qualified architectural historian or preservation architect to ensure that the designs do not result in a "substantial adverse change" to the historical resources of District D and the Benicia Arsenal Historic District. The architectural historian or preservation architect shall prepare a report that includes recommendations, as warranted, for design changes to the new buildings so as to avoid or mitigate impacts to historical resources. The report recommendations shall be incorporated in the final design of the new buildings, which must be approved by the Benicia Historic Preservation Review Commission prior to construction.	1) The project sponsor shall retain a qualified architectural historian or preservation architect to ensure that design plans for new construction are in accordance with Mitigation Measure CULT-7a. 2) The architectural historian or preservation architect shall prepare a report documenting recommendations. 3) Findings of the report shall be incorporated into the final design of new buildings. 4) Pre-project conditions shall be documented in accordance with Mitigation Measure CULT-7a.	Project sponsor	The City of Benicia Planning and Building Department and the Benicia Historic Preservation Review Commission to review and approve the report and final deign plans for compliance with Mitigation Measure CULT-7a.	No approval of final design plans	New building design to comply with Draft Specific Plan and recommendations of the qualified architectural historian as specified in Mitigation Measure CULT-7a.	Prior to approval of final design plans.
	CULT-7b: Historical photographs and/or maps, accompanied by text, shall be presented as part of an interpretative display describing the configuration of historical buildings in District D as well as their historical significance. This interpretative display shall be developed in consultation with the Benicia Historical Museum and the Benicia Historical Society.	The City of Benicia, in consultation with the Benicia Historical Museum and the Benicia Historical Society shall develop an interpretive display in accordance with Mitigation Measure CULT-7b.	City of Benicia	The City of Benicia Planning and Building Department to review the interpretive display.	No approval of final design plans.	Interpretive display for District D.	Prior to approval of final design plans.
CULT-8: The development of the South of Grant Street Regulatory Zone could disturb intact archaeological deposits.	CULT-8: Implement Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.	Refer to Mitigation Measures CULT-1a, -1b, and -1c.

Table 1 *Continued*

Identified Impact	Mitigation Measures	Implementation Procedure	Implementing Entity	Monitoring and Reporting Action	Non-Compliance Sanction	Effectiveness Criteria	Timing
PALEO-1: Project ground disturbance could result in significant impacts to paleontological resources.	PALEO-1: If paleontological resources are discovered during activities associated with individual development projects, all work within 25 feet of the discovery shall be redirected and a qualified paleontologist contacted to assess the finds. The paleontologist shall make recommendations regarding the treatment of the discovery. Project personnel shall not collect or move any paleontological resources. It is recommended that adverse impacts to such paleontological resources be avoided by project activities. If such resources cannot be avoided, they shall be assessed to determine their paleontological significance. If the paleontological resources are not significant, then avoidance is not necessary. If the paleontological resources are significant, they shall be avoided or adverse impacts shall be mitigated. Upon completion of the assessment, the paleontologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the paleontological resources. The City shall ensure that the recommendations of the consulting paleontologist are implemented prior to actions that could adversely affect the resource in question.	1) In the event that unidentified paleontological deposits are discovered during construction activities the project sponsor shall ensure that the construction contractor halts all activity within 25 feet of the discovery. 2) The project sponsor shall retain a qualified paleontologist to evaluate the finds and make recommendations. 3) The qualified paleontologist shall complete a report documenting the methods, results, and recommendations, and shall submit the report to the City.	Project sponsor	The City of Benicia Planning and Building Department to: 1) Verify that, in the event unidentified paleontological deposits are discovered, all work within 25 feet of the find is redirected. 2) Verify that a paleontologist is retained to evaluate the materials. 3) Review and approve the paleontological report as adequate.	Non-compliance sanctions which may include citations or revocation of permits.	Paleontological report and appropriate treatment of paleontological resources, if applicable.	During the construction period.
L. PUBLIC SERVICES							
There are no significant *Public Services* impacts.							
M. UTILITIES AND INFRASTRUCTURE							
There are no significant *Utilities and Infrastructure* impacts.							
N. SUSTAINABILITY AND ENERGY							
There are no significant *Sustainability and Energy* impacts.							

AUGUST 14, 2008
PLANNING COMMISSION MINUTES

BENICIA PLANNING COMMISSION
CITY COUNCIL CHAMBERS

REGULAR MEETING MINUTES

Thursday, August 14, 2008

7:00 P.M.

I. OPENING OF MEETING

A. Pledge of Allegiance

B. Roll Call of Commissioners

Present: Commissioners Rick Ernst, Dan Healy, Rod Sherry, Lee Syracuse, Brad Thomas and Chair Fred Railsback

Absent: Commissioner Richard Bortolazzo (excused)

Staff Present: Charlie Knox, Community Development Director
Gina Eleccion, Management Analyst
Kat Wellman, Contract Attorney

C. Reference to Fundamental Rights of Public - A plaque stating the Fundamental Rights of each member of the public is posted at the entrance to this meeting room per Section 4.04.030 of the City of Benicia's Open Government Ordinance.

II. AGENDA CHANGES AND DISCUSSION

None.

III. OPPORTUNITY FOR PUBLIC COMMENT

A. WRITTEN

None.

B. PUBLIC COMMENT

A citizen stated that on Sunday, September 7th, the Benicia Bicycle Club is sponsoring a race.

IV. CONSENT CALENDAR

On motion of Commissioner Ernst, seconded by Commissioner Syracuse, the Consent Calendar was approved by the following vote:

Ayes:	Commissioners Ernst, Healy, Sherry, Syracuse, Thomas and Chair Railsback
Noes:	None
Absent:	Commissioners Bortolazzo
Abstain:	Commissioner Sherry (Item IV-C only)

A. **Approval of Agenda**
B. **Approval of Minutes of June 12, 2008**
C. **Approval of Minutes of July 10, 2008**

V. REGULAR AGENDA ITEMS

A. USE PERMIT FOR BODY ART AS AN ANCILLARY USE

08PLN-34 Bombshell Hair and Ink
120 East G Street; APN: 89-342-030

PROPOSAL:
In accordance with Downtown Mixed Use Master Plan Town Core (TC) development regulations, the applicant requests approval of a Use Permit for the establishment of an ancillary body art business as part of an existing hair salon.

Recommendation: Adopt a resolution approving application 08PLN-34 to establish an ancillary body art use at 120 East G Street, with the condition that body art other than only facial aesthetic treatments customarily incidental to salon use not be allowed.

Charlie Knox, Community Development Director, gave an overview of the project.

Commissioners questioned the timing of the application in relation to the Downtown Mixed Use Master Plan. Charlie Knox noted that this was originally applied for at the time the Plan was recommended for adoption. The Plan requires a Use Permit for this type of use. He noted that this use is limited to certain zoning designations, and is allowed in other areas without a Use Permit.

Commissioners commented on the General Plan conformance difference between permanent makeup vs. tattooing. Charlie Knox noted that this is the Commission's determination to make. He noted that whatever conditions are applied to this applicant must be applied fairly in the future.

Commissioners commented on the definition of "body art." Charlie Knox noted that this has not been clearly defined by the City Council. Kat Wellman, Contract Attorney, noted that the purpose of a conditional Use Permit is to allow consideration of certain uses, and under specific conditions. She noted that each Use Permit is considered independent of previously approved uses.

The definition of ancillary was discussed. Charlie Knox noted that it is considered "secondary."

Quality of life was discussed in relation to this project. Charlie Knox noted that he does not question the quality surrounding this particular business, however, there is the potential for an impact on the quality of life in the downtown.

Kat Wellman noted that it is typical to adopt a Resolution approving a Use Permit, which makes specific findings and places specific conditions on the allowable use.

The public hearing was opened.

Cheri Graf, Applicant – She noted that she has been working on this for some time. She had originally looked at her current location, and at the time, met the requirements for that location. Subsequently, she looked at a location at 636 First Street, which was not allowed. She commented on other communities that allow tattooing. She provided information that tattooing is a fast growing industry, and has become mainstream. She noted that there are strict regulations for cleanliness and safety. In addition, she noted that she is not a permanent makeup artist, so that use would not assist her business. She cares about the quality of work and the quality of her employees. She commented on letters of support she has received, including a letter from Studio 41. She read a letter into the record from Susan Phillips. A list of supporters was read.

The applicant was questioned about what licensing is required for tattooing. Cheri Graf noted that there is no professional licensing, however individuals register themselves as professional tattoo artists. In contract, a permanent makeup artist requires a state license.

The applicant was questioned about the use of needles and any potential health risks. She noted that there is a sharps container for disposal.

A citizen spoke in support of the business. She received her first tattoo in Vallejo and would prefer to have this done in a reputable salon in Benicia.

A citizen noted that tattooing is now an art form. She supports the project.

A citizen spoke in favor of the project.

Carla Jewell, Business Owner – She supports the project and does not believe this business will attract a negative element.

Owner of 321 First Street – She supports the project and believes this business has extremely high standards.

Robert Whitehead, landlord – He stated his support of the project.

David Archer, resident – He supports the project. He believes the downtown was established to have businesses succeed.

Earl Miller, 903 West 3rd – He supports the project.

Manny Pereira, resident – He stated that he has numerous friends with tattoos. He supports the project.

Jim Strebig, 450 East D – He commented on the variety of people he knows with tattoos. He supports the project.

Lisa Filangeri, resident – She supports the project.

A customer of the salon commented that she does not believe this will negatively affect the downtown character. She supports the project.

Mark Hancock, resident – He commented on the growth of Benicia and the diversity of First Street. He commented on the history of tattooing. He supports the project.

A stylist at the shop commented on the professionalism of the salon. She fully supports the project and noted the owner's support of other businesses in town.

Alex Pines, resident – He commented on this as an ancillary use and also how this will affect the small town character of Benicia. He stated that this business owner exemplifies the character of Benicia and enhances the small town atmosphere.

Linda Jones noted that this is Cheri Graf's dream. She disagrees with any conflict with the City's General Plan policies.

John Sheppard spoke in support of Cheri Graf. He noted that Ms. Graf truly wants to have a quality business that does not retract from the downtown character.

The public hearing was closed.

Commissioners thanked the applicant.

Charlie Knox noted that this Use Permit goes with this particular use at this particular location.

Commissioners commented on what the easiest way to define ancillary is. There was a suggestion to define ancillary as less than 50% of the square footage.

The motion included the following modified conditions:

1. Strike 120 East G (re: limitation of body art), add "based on the following conditions"
2. Add ancillary body art use at this particular business would not detract from the small town character.
3. Strike condition 3
4. Condition #4 – at no time shall approval of this construe approval of tattooing without appropriate use permit approval
5. Add condition that ancillary use is limited to less than half of the overall square footage of the primary use.
6. Condition #2 – Include definition of body art.

Commissioner Ernst stated he had a conversation in September 2007 with the applicant. Chair Railsback and Commissioner Sherry stated they had ex-parte communication with the applicant.

RESOLUTION NO. 08-6 (PC) - A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF BENICIA APPROVING A USE PERMIT (08PLN-34) FOR AN ANCILLARY BODY ART USE AT 120 EAST G STREET

On motion of Commissioner Healy, seconded by Commissioner Sherry, the above Resolution was adopted by the following vote:

Ayes:	Commissioners Ernst, Healy, Sherry, Syracuse, Thomas and Chair Railsback
Noes:	None
Absent:	None
Abstain:	Commissioner Bortolazzo

A recess was called at 8:15. The meeting was reconvened at 8:23.

B. RECOMMENDATION TO CITY COUNCIL ON THE LOWER ARSENAL MIXED USE SPECIFIC PLAN AND EIR

The project site consists of approximately 50 acres in southeastern Benicia, and is a portion of Benicia's former Arsenal known as the Lower Arsenal. The site is generally bounded by lands adjoining I-780 on the north, lands adjoining I-680 on the east, Port of Benicia land and the Carquinez Strait on the south, and residential neighborhoods extending into downtown Benicia on the west.

PROPOSAL:

The proposal is implementation of a Specific Plan for the Lower Arsenal site, which is designated for mixed uses in the Benicia General Plan. The Specific Plan covers four distinct zones, each of which exhibits a unique physical character. The Specific Plan would implement a form-based code to shape future development on the project site, with primary emphasis on the physical form and character of new development. After build-out of the Specific Plan, the area would contain approximately 741,865 square feet of mixed uses, 22 residential units, and 6.39 acres of open space. The Specific Plan area currently contains approximately 525,000 square feet of mixed uses.

Recommendation: Recommend City Council certification of the Environmental Impact Report and adoption of the Lower Arsenal Mixed Use Specific Plan, with modification of Action 4.6.2 to prohibit granting of City permit for alteration of any structure in the Plan area more than 50 years old until the Lower Arsenal historic resource inventory has been updated.

Commissioner Sherry stated a conflict of interest on this item due to business interests and recused himself.

Charlie Knox introduced this item. He noted that the recommendation on the content of the Plan was forwarded to the City Council last year. The City Council directed staff to prepare the environmental documents. Charlie Knox noted that there would need to be an update of the Arsenal Historic Resource Inventory. He noted that the Arsenal Historic Conservation Plan protects the integrity of the historic structures in the Arsenal Historic District. He commented on the 1025 Grant Street project and the property owners' involvement in the public charrette process. A number of comments have been submitted in relation to this project being included in the Plan. The Jefferson Ridge is the only parcel subject to EIR alternatives. The senior housing alternative was highlighted. The General Plan allows consideration of live/work uses.

Adam Weinstein, LSA, gave a brief presentation. He introduced David Clore and Theresa Bravo, colleagues from LSA. An overview of the CEQA process was given. He highlighted Mitigation Measure HAZ-1. He noted that LSA met with City staff, the Army Corps of Engineers, and the Department of Toxic Substances Control. EIR adequacy was highlighted.

The public hearing was opened.

Robert Whitehead, property owner – He stated his support of the senior housing project. He commented on the different options proposed. He believes it is time to develop in the Arsenal.

Dennis McCray, SAHF – He submitted a letter to the Commission. He would like the senior housing option to be labeled as the "preferred alternative." He stated his disagreement with Opticos' recommendations in the Plan.

Marilyn Bardet – She does not believe the Plan should be adopted at this time. She disagrees with staff's recommendation of approval. She highlighted disagreements that have not been resolved. There are contradictions in the Response to Comments. She is concerned with safety and health issues. The City has a responsibility to investigate and clean up the area.

Claudia Keppelyuhas, resident – She commented on the eclectic nature of the community. She has been waiting for the Arsenal to be restored. The General Plan intends mixed use and residential living has been happening. She commented on the 22-unit project at 1025 Grant Street and their contribution to the tax base. She referenced the tax contribution of Amports.

Dana Dean, representing Amports – She alleged missteps in the process. There was not sufficient time to review this Plan. She referred to page 291 of the Response to Comments and the City's communication with DTSC and the Army Corps of Engineers. She alleged that DTSC was not involved in developing mitigation measures. In addition, she believes the Plan is complicated for property owners to follow.

Belinda Smith, resident – She referenced the cultural resources. She commented on a letter from Knox Mellon, State Office of Historic Preservation, and believes that the Arsenal was designated as a historic district after this letter was written. She commented

on potential substantial adverse impacts. She stated the importance of the setting. There are issues regarding the Secretary of the Interior Standards. She believes the hearing should be continued.

Donald Dean, 257 West I Street – He commented on the cultural resources section of the EIR. He questioned how this plan would affect the historic integrity of the district as a whole. He does not believe this question was sufficiently answered. There needs to be a balance in developing the Arsenal and retaining its historic integrity. He would like this item continued.

Bill Simpkins, Simpkins Auto – Spoke on behalf of the owner of Star Motors and himself. He doesn't believe residential is a compatible use. There are hazards in commercial and industrial uses.

Mark Hajjar, property owner – He commented on his project at 1025 Grant Street. He submitted design items related to his project. He noted that the General Plan calls for mixed use.

A resident at 940 Grant Street – She stated that the Arsenal has a sense of community. There is a thriving artist community. She supports development, but thinks work/live is the solution. She would like development compatible with existing uses. She would like to see this move forward.

Kathleen Olson, 920 First Street – She noted that the General Plan drives this process. She reminded the Commission that there are over 190 acres in the Lower Arsenal. There are very few undeveloped properties. Individual property owners assume risk of developing. The property owner met with Amports, who stated they would be neutral on this project with proper deed notification.

Norm Koerner, 1150 West 7th Street – He commented that other residents are not here. He supports the Plan.

The public hearing was closed.

Commissioner Ernst stated he had ex-parte communications with a number of the speakers. Commissioner Healy stated he had ex-parte communications with Dana Dean and Kathleen Olson. Chair Railsback stated he had ex-parte communications with many of the speakers, as did Commissioner Thomas.

Commissioners discussed the EIR. There should be more certainty in the process. There are questions that need to be answered. The difference because Phase 1 and Phase 2 analysis was discussed. There is a risk that developers take, but they are aware of that risk.

Commissioners commented on the need to protect the historic integrity of the Arsenal. The Commandant's restoration has cost a significant amount of money.

Charlie Knox noted that Option 3 is now referred to as Option 1.5. In addition, he noted that any applicant coming forward would be required to perform environmental analysis of their site. The City would like to see the Army Corps continue its cleanup, but has no confidence that will happen.

Charlie Knox noted that if the Plan is not adopted, developers can come forward with proposals.

Charlie Knox noted that there had been a lot of agreement at the end of the charrette process, some of which has now been lost. Opticos prepared the Plan based on the feedback from the charrette. In addition, he noted that the 1025 Grant Street project came before the Commission and was received favorably prior to the Specific Plan process.

Charlie Knox noted that the hazards section of the EIR addresses those hazards that are known. There is no mechanism to have the environmental information available to property owners prior to purchase. The Army Corps has identified some areas of contamination.

Charlie Knox noted that the Commission can recommend certification of the EIR without an option recommended. A recommendation would be forwarded to the City Council no earlier than September 16th.

There is a discussion on the small percentage of developable land. The senior housing proposal was discussed. The cork oak grove is important to preserve.

Kat Wellman reminded the Commission that a Specific Plan can be amended as many times as needed. In addition, projects proposed will come before the Commission for review and environmental analysis.

Commissioner Thomas moved to recommend approval of both EIR and Plan. The motion died for lack of a second.

RESOLUTION NO. 08-7 (PC) - A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF BENICIA RECOMMENDING CITY COUNCIL CERTIFICATION THE ENVIRONMENTAL IMPACT REPORT FOR THE LOWER ARSENAL MIXED USE SPECIFIC PLAN

On motion of Commissioner Thomas, seconded by Chair Railsback, the above Resolution (DEIR) was adopted by the following vote:

Ayes:	Commissioners Ernst, Syracuse, Thomas and Chair Railsback
Noes:	Commissioner Healy
Absent:	None
Abstain:	Commissioners Bortolazzo and Sherry

RESOLUTION NO. 08-8 (PC) - A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF BENICIA RECOMMENDING CITY COUNCIL ADOPTION OF THE LOWER ARSENAL MIXED USE SPECIFIC PLAN

On motion of Commissioner Thomas, seconded by Commissioner Syracuse, the above Resolution (LAMUSP), with City Council determination of appropriate option, was adopted by the following vote:

Ayes:	Commissioners Syracuse, Thomas and Chair Railsback
Noes:	Commissioner Ernst
Absent:	Commissioner Bortolazzo
Abstain:	Commissioner Healy

VI. COMMUNICATIONS FROM STAFF

Charlie Knox noted that the Climate Action Plan will be coming before the Commission in October. In addition, he noted that the Housing Element update will begin with public workshops on October 3rd and 4th.

VII. COMMUNICATIONS FROM COMMISSIONERS

Commissioner Ernst stated his concern with potential future tattoo issues. He would like City Council to place a moratorium on this use until an ordinance can be drafted. Kat Wellman stated that a request of staff can be made. Charlie Knox noted that City Council members can be petitioned to request this item be agendized.

VIII. ADJOURNMENT

Chair Railsback adjourned the meeting at 10:50 p.m.

AUGUST 2009 DRAFT EIR RECIRCULATION

LOWER ARSENAL MIXED USE SPECIFIC PLAN ENVIRONMENTAL IMPACT REPORT

RECIRCULATION OF NOISE AND GLOBAL CLIMATE CHANGE, ENERGY USE AND SUSTAINABILITY SECTIONS

STATE CLEARINGHOUSE #2007062021

LSA

August 2009

LOWER ARSENAL MIXED USE SPECIFIC PLAN ENVIRONMENTAL IMPACT REPORT

RECIRCULATION OF NOISE AND GLOBAL CLIMATE CHANGE, ENERGY USE AND SUSTAINABILITY SECTIONS

STATE CLEARINGHOUSE #2007062021

Submitted to the:

City of Benicia
250 East L Street
Benicia, CA 94510

Prepared by:

LSA Associates, Inc.
2215 Fifth Street
Berkeley, CA 94710
510.540.7331

LSA

August 2009

THE CITY OF BENICIA CALIFORNIA

COMBINED NOTICE OF AVAILABILITY OF SELECT TOPICAL SECTIONS OF THE LOWER ARSENAL MIXED USE SPECIFIC PLAN DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) AND NOTICE OF PUBLIC HEARING ON THE DRAFT EIR

PROJECT TITLE: Lower Arsenal Mixed Use Specific Plan

PROJECT SPONSOR: City of Benicia

PROJECT LOCATION: The project site is located in the City of Benicia in Solano County. The project site consists of approximately 50 acres east of Downtown Benicia, and is a portion of Benicia's former Arsenal known as the Lower Arsenal. The site is generally bounded by lands adjoining I-780 on the north, lands adjoining I-680 on the east, Port of Benicia land and the Carquinez Strait on the south, and residential neighborhoods extending into downtown Benicia on the west.

BRIEF DESCRIPTION OF PROJECT: The proposed project includes implementation of a Specific Plan for the Lower Arsenal site, which is designated for mixed uses in the Benicia General Plan. The Specific Plan covers four distinct zones, each of which exhibits a unique physical character. The Specific Plan would implement a form-based code to shape future development on the project site, with primary emphasis on the physical form and character of new development. After build-out of the Specific Plan, the area would contain approximately 741,865 square feet of mixed uses, 22 residential units, and 6.39 acres of open space. The Specific Plan area currently contains approximately 525,000 square feet of mixed uses. The Draft Specific Plan is available for public review at the City's Community Development Department or on the web: http://beniciaca.govoffice2.com/index.asp?Type=B_BASIC&SEC={B38B0ADD-399B-44DE-95BD-90551B12A45D}

ENVIRONMENTAL REVIEW: The Lower Arsenal Mixed Use Specific Plan Draft Environmental Impact Report (DEIR) was released for public and agency review on July 19, 2007. Public/agency review ended on September 6, 2007. Select sections of the Draft EIR (Section IV.E, Hazards and Hazardous Materials and Section IV.K, Cultural and Paleontological Resources) were recirculated on April 22, 2008 in accordance with *California Environmental Quality Act (CEQA) Guidelines* section 15088.5. A Response to Comments (RTC) Document was prepared and circulated in August 2008 that addresses all comments received on the Draft EIR, including the recirculated sections.

This current recirculation of select topical sections from the DEIR has been prepared to update and provide additional analysis of the Specific Plan. Two sections are being recirculated: Section IV.I, Noise and Section IV.N, Global Climate Change, Energy Use, and Sustainability (formerly Section IV.N, Sustainability and Energy). This recirculation is not required pursuant to CEQA or the *CEQA Guidelines* because none of the criteria listed in *CEQA Guidelines* section 15088.5 for recirculation of an EIR (e.g., the identification of a new or more severe environmental impact, or a new mitigation measure/project alternative, or a finding that the EIR is inadequate) have been met. The purpose of this recirculation is to provide decisionmakers and the public with an opportunity to review new information added to the EIR. Copies of the recirculated sections are available for review or distribution to interested parties at no charge at the City of Benicia Community Development Department, 250 East "L" Street, Benicia, CA 94510, Monday through Friday, 8:30 a.m. to noon, and 1:00 p.m. to 5:00 p.m.

PUBLIC HEARING: The City of Benicia Planning Commission and Historic Preservation Review Commission will jointly conduct a public hearing on the DEIR on Thursday, September 24, 2009 at 6:30 p.m. in the City Council Chambers (250 East "L" Street, Benicia). The City of Benicia is requesting that reviewers limit their comments to the recirculated materials. Comments may be made at the public hearing described above, or in writing. There is no fee for commenting, and all comments received will be considered by the City prior to finalizing the EIR and making a decision on the project. Written comments should be sent to the attention of Damon Golubics, Principal Planner, City of Benicia, 250 East "L" Street, Benicia, CA 94510, no later than 4:00 p.m. on Wednesday, October 7, 2009. For further information, please e-mail Damon Golubics at Damon.Golubics@ci.benicia.ca.us.

Charlie Knox
Public Works Director
Community Development Director
Date: August 24, 2009

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I. INTRODUCTION

A. INTRODUCTION

This recirculation of select topical sections from the Lower Arsenal Mixed Use Specific Plan Draft Environmental Impact Report (EIR) has been prepared to update and provide additional analysis of the Specific Plan. Two sections are being recirculated: Section IV.I, Noise and Section IV.N, Global Climate Change, Energy Use, and Sustainability (formerly Section IV.N, Sustainability and Energy). This recirculation is not required pursuant to the California Environmental Quality Act (CEQA) or the *CEQA Guidelines*, because none of the criteria listed in *CEQA Guidelines* section 15088.5 for recirculation of an EIR (e.g., the identification of a new or more severe environmental impact, or a new mitigation measure/project alternative, or a finding that the EIR is inadequate) have been met. The purpose of this recirculation is to provide decisionmakers and the public with an opportunity to review new information added to the EIR.

The Lower Arsenal Mixed Use Specific Plan Draft EIR was released for public and agency review on July 19, 2007. During and after the public/agency review period (which formally ended on September 6, 2007), 21 comment letters were submitted. Select sections of the Draft EIR (Section IV.E, Hazards and Hazardous Materials and Section IV.K, Cultural and Paleontological Resources) were recirculated on April 22, 2008 in accordance with *CEQA Guidelines* section 15088.5. The public was notified of the availability of the recirculated sections and they were made available through the same process as the Draft EIR. The CEQA-mandated 45-day public comment period was extended by an extra 46 days and ended on July 22, 2008. Ten letters were received on the recirculated sections. A Response to Comments (RTC) Document was prepared and circulated in August 2008 that addresses all comments received on the Draft EIR, including the recirculated sections.

Due to the passage of time and changes in the regulatory environment, as well as additional comments received after the RTC Document was circulated, new information is again incorporated into the Draft EIR analysis. However, this new information is not considered "significant new information" as defined by *CEQA Guidelines* section 15088.5, such that recirculation would be required.

New information is considered significant under *CEQA Guidelines* section 15088.5 when: "The EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." The changes made to Sections IV.I and IV.N of the Draft EIR do not meet any of these criteria.

This document includes: 1) instructions for submitting comments on the recirculated materials; 2) a summary of new information that is being added to the Draft EIR; and 3) complete copies of Sections IV.I, Noise and IV.N, Global Climate Change, Energy Use, and Sustainability, of the Draft EIR that include new information introduced since publication of the Draft EIR and RTC Document.

B. COMMENTING ON THE RECIRCULATED EIR

These recirculated materials will be released for public/agency review for 45 days. Submit all comments to Damon Golubics, Principal Planner, City of Benicia, 250 East L Street, Benicia, CA 94510, by October 7, 2009. The City of Benicia is requesting that reviewers limit their comments to the recirculated materials (Sections IV.I, Noise and IV.N, Global Climate Change, Energy Use, and Sustainability). Comments received during the recirculation period will be addressed in a forthcoming RTC Document.

Questions and comments regarding the preparation of these materials and City review of the project should be directed to:

Charlie Knox, Community Development Director
City of Benicia
250 East L Street
Benicia, CA 94510

C. NEW INFORMATION

New information has been added to Sections IV.I, Noise and IV.N, Sustainability and Energy, of the Draft EIR. All revisions made to these sections are included herein. The page numbers of each section are those of the complete EIR

The new information added to Section IV.I, Noise includes a summary of the analysis and conclusions provided in a November 2, 2007 supplemental noise study of the project site prepared by Rosen Goldberg Der and Lewitz, and submitted on behalf of the Port of Benicia as part of a comment letter on the Draft EIR, dated March 10, 2008. The data and conclusions presented in that submittal are incorporated into Section IV.I, but do not alter the impact conclusions described in the Draft EIR. The new information added to this section is shown via <u>underlined</u> text; deleted text is shown via the ~~strikeout~~ feature.

The new information added to Section IV.N, Global Climate Change, Sustainability and Energy includes an analysis of global climate change, pursuant to Assembly Bill (AB) 32, Executive Order S-3-05, Senate Bill (SB) 375, and recent guidance from the Office of Planning and Research (OPR) and other agencies. In April 2009, proposed amendments to the *CEQA Guidelines* were released by the OPR. These proposed amendments state that a lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas (GHG) emissions resulting from a project.

The updated section includes the following information related to global climate change:

- A description of the State and regional setting and climate/meteorological conditions in the Specific Plan area. The findings of the City of Benicia *Greenhouse Gas Emissions Inventory Report*[1] (which was prepared subsequent to the 2007 Draft EIR and the 2008 recirculated Draft EIR) are also discussed.

[1] Benicia, City of, 2008. *City of Benicia Greenhouse Gas Emissions Inventory Report*. September.

- A description of the existing regulatory framework for global climate change which identifies applicable federal, State, and local policies, regulations, and programs, including the recently-proposed amendments to the *CEQA Guidelines* by the OPR.
- A quantitative assessment of energy use and greenhouse gas emissions associated with sources related to the Specific Plan, including construction and rehabilitation activities, new vehicle trips, electricity consumption, water usage, and solid waste generation and disposal.
- Significance criteria that provide thresholds for evaluating global climate change impacts.
- A discussion of the effects of climate change on the project.

Because the information added to this section is extensive (and required a reorganization of the existing section), the added information is shown as normal text (and not as underline or ~~strikeout~~). No new impacts or mitigation measures were identified as a result of this addition of new information.

I. NOISE

This section describes existing noise conditions in the vicinity of the Plan Area, describes criteria for determining the significance of noise impacts, and discusses the impacts of the Draft Specific Plan – both in term of the project's noise-generating qualities and its potential to expose persons to unacceptable noise levels. Where appropriate, mitigation measures are recommended to reduce impacts to a less-than-significant level.

1. Setting

The setting section begins with an introduction to several key concepts and terms that are used in evaluating noise. It then explains the various agencies that regulate the noise environment in the City of Benicia and summarizes key standards that are applied to Draft Specific Plan. This setting section concludes with a description of current noise sources that affect the Plan Area and the noise conditions that are experienced in the vicinity of the Plan Area.

a. Characteristics of Sound. To the human ear, sound has two significant characteristics: pitch and loudness. A specific pitch can be an annoyance, while loudness can affect our ability to hear. Pitch is the number of complete vibrations or cycles per second of a wave that results in the range of tone from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment, and it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments.

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A *decibel* (dB) is a unit of measurement that indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3.0 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3.0 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness. Sound intensity is normally measured through the *A-weighted sound level* (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Table IV.I-1 shows representative outdoor and indoor noise levels in units of dBA.

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

Table IV.I-1: Typical A-Weighted Sound Levels

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

Source: Compiled by LSA Associates, Inc., 2005.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level is. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern. There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and community noise equivalent level (CNEL) or the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise.

Another noise scale often used together with the L_{max} in noise ordinances for enforcement purposes is noise standards in terms of percentile exceedance noise levels. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level: half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

b. Existing Noise. Primary noise sources in and around the Plan Area and associated noise levels are described below.

(1) Existing Vehicular Traffic Noise Levels. Vehicular traffic is a major source of ambient noise in urban settings and the Plan Area is no exception. The existing traffic noise levels for roadway segments around Plan Area are listed in Table IV.I-2. This table was generated from data including roadway traffic volumes, vehicle speeds, and roadway geometry, using the Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108). Existing noise levels along select roadway segments in the vicinity of the Plan Area (at 50 feet outward from the centerline of the outermost travel lane) range from 55.3 dBA CNEL to 63.6 dBA CNEL. According to noise exposure contours in the City's General Plan[1], traffic noise levels from I-680 reach 60 dBA L_{dn} for only a small portion of the extreme northeast section of the Plan Area. Because noise associated with vehicles on I-680 does not significantly contribute to high noise levels within the Plan Area, noise from this roadway is not further analyzed in this section.

(2) Existing Railroad Noise Levels. The Southern Pacific Railroad (SPRR) line passes within 1,200 feet of the Plan Area. The railroad line is located on the eastern side of I-680, the opposite side of the freeway from the project site. There is a spur that enters the Port area for loading and unloading. The Port of Benicia separates the Plan Area from the Carquinez Strait. The Port is privately owned and operated and primarily functions as an automotive distribution facility. Railroad loading facilities that operate within the Port are located within 200 feet of the Plan Area.

(3) Existing Aircraft Noise Levels. Oakland International Airport is located approximately 21 miles south of the Plan Area. Buchanan Field Airport is located approximately 5 miles south of the Plan Area adjacent to the City of Concord. Napa County Airport is located approximately 13 miles to the northwest of the Plan Area. Travis Air Force Base is located approximately 17 miles northeast of the Plan Area. Based on the Travis Air Force Base Land Use Compatibility Plan (June 2002)[2] and the Buchanan Field FAR Part 150 Study (June 2006)[3], the Plan Area is located outside of the 60 dBA noise contours associated with these airport flight paths.

(4) Other Ambient Noise Sources. Ambient noise sources in the vicinity of the Plan Area include the operational noise sources of the Port of Benicia and industrial activities within the Plan

[1] Benicia, City of, 1999. City of Benicia General Plan, 1999.

[2] Travis Air Force Base, 2002. Travis Air Force Base Land Use Compatibility Plan. Figure 2B Noise Contours. June 13.

[3] Buchanan Field Airport, 2006. FAR Part 150 Study. Figure D20 Future Base Case 2012 CNEL Noise Contours. June.

Table IV.I-2: Existing (2006) Baseline Traffic Noise Levels

Roadway Segment	ADT[a]	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
East 5th Street - I-780 EB Ramps to Military East	9,900	< 50[b]	< 50	106	63.6
East 5th Street - Military East to East K Street	5,300	< 50	< 50	70	61.4
Military East - East 2nd Street to East 4th Street	5,700	< 50	< 50	91	62.6
Military East - East 5th Street to East 7th Street	6,100	< 50	< 50	95	63.5
Adams Street - Military East to Park Road	2,000	< 50	< 50	< 50	57.2
Grant Street - Adams Street to Park Road	1,300	< 50	< 50	< 50	55.3
Park Road - Bayshore Road to Elm Street	1,600	< 50	< 50	< 50	57.7

[a] Average daily traffic volume.
[b] Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.
Source: LSA Associates Inc., May 2007.

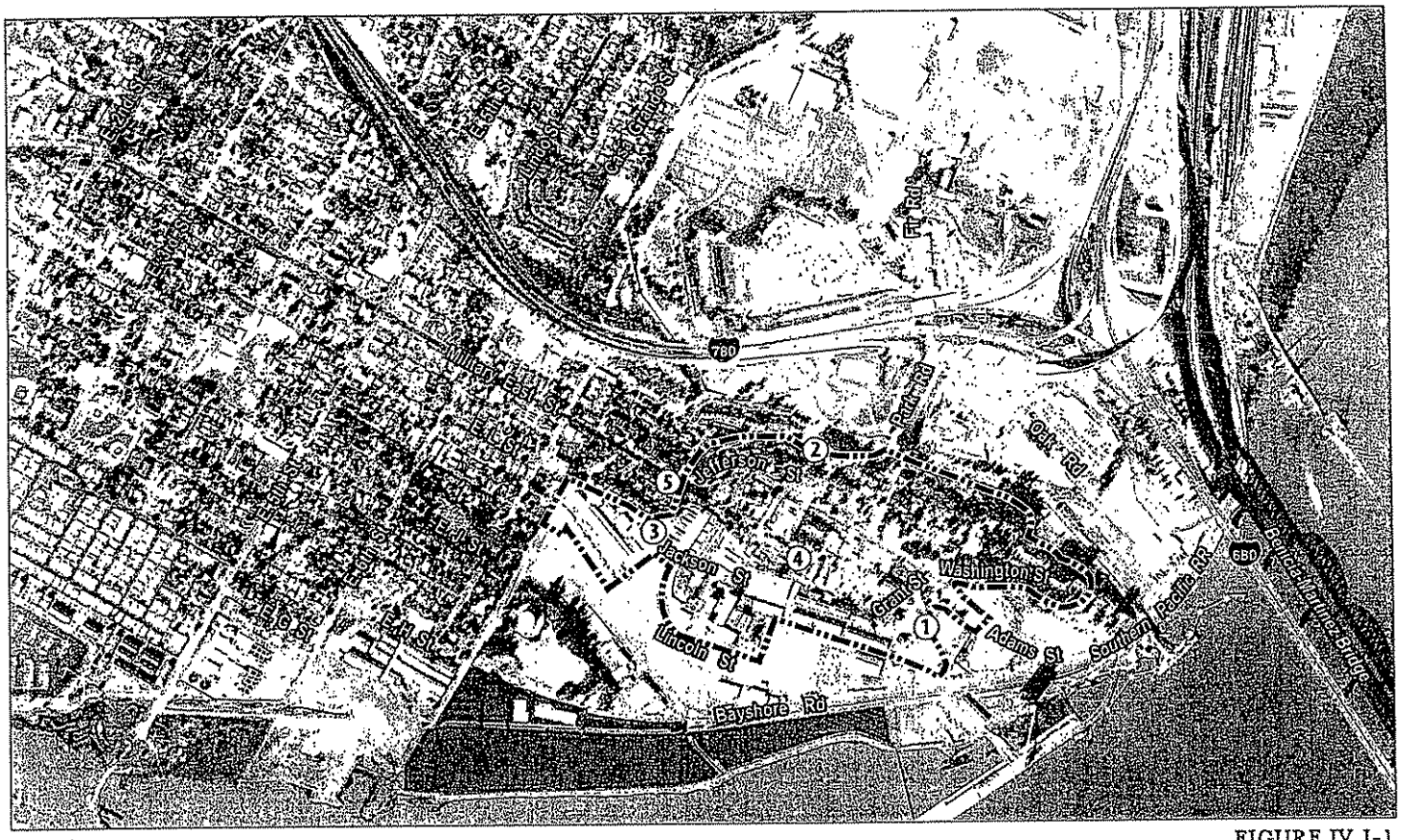
Area. Operational noises include loading and unloading operations of ships, trains and trucks, as well as light industrial noise sources such as metal shop and auto repair work.

An LSA noise technician conducted short-term ambient noise monitoring on the project site on May 16, 2007 between the hours of 11:30 a.m. and 4:15 p.m. at five separate locations. The purpose of this noise monitoring was to document the existing noise environment and capture the noise levels associated with operations and activities in the Plan Area. Table IV.I-3 lists the noise levels measured during the short-term 20-minute noise measurements. Maximum and minimum noise levels were recorded as well as the equivalent continuous noise level measure L_{eq}. The maximum noise levels all reflect vehicular traffic noise sources. The meteorological conditions at the time of each noise measurement are shown in Table IV.I-4. Figure IV.I-1 shows the monitoring locations.

Table IV.I-3: Short-Term Ambient Noise Monitoring Results, dBA

Location	Start Time	L_{eq}[a]	L_{max}[b]	L_{min}[c]	Noise Sources
(1) #1060 Grant Street, behind Command Post Building	11:55 a.m.	52.2	68.8	44.9	Machinery in road-construction storage yard, trucks in port area
(2) #921 Jefferson Court, 4 feet from edge of street, 105 feet from Park Road	12:55 p.m.	52.5	69.2	43.3	Road construction equipment on Park Street, traffic on Park Street & Adams Street
(3) #849 Jackson Street, 120 feet west of J.R. Schneider Co. building compressor	1:45 p.m.	68.8	73.8	66.4	Compressor by J.R. Schneider building, truck unloading activity
(4) Polk Street, behind #983 Grant Street building	2:15 p.m.	59.6	83.2	42.0	Soldering/metal sanding work from metal shop on Polk Street, traffic on Polk Street
(5) #835 Military East, 10 feet from edge of road	3:45 p.m.	61.3	76.0	45.2	Traffic on Military East / Grant Street

[a] L_{eq} represents the average of the sound energy occurring over the 20-minute time period.
[b] L_{max} is the highest instantaneous sound level measured during the 20-minute time period.
[c] L_{min} is the lowest instantaneous sound level measured during the 20-minute time period.
Source: LSA Associates, Inc., May 2007.



LSA

FIGURE IV.I-1

Lower Arsenal Mixed Use Specific Plan EIR
Noise Monitoring Locations

N

0 450 900
FEET

PLAN AREA

1 NOISE MONITORING LOCATIONS

SOURCE: GOOGLE EARTH, 2005; LSA ASSOCIATES, INC., 2007
I:\CIB0701 lower arsenal\Recirc Figures\Fig_IV11.ai (5/31/07)

Table IV.I-4: Meteorological Conditions During Ambient Noise Monitoring

Location	Maximum Wind Speed (mph)	Average Wind Speed (mph)	Temperature (F)	Relative Humidity (%)	Comments
1	9.0	4.1	71	38	Clear skies, wind from the West
2	7.9	2.5	73	48	Clear skies, wind from the West
3	7.1	2.8	75	32	Clear skies, wind from the West/ Northwest
4	9.4	2.3	74	34	Clear skies, wind from the West
5	6.4	1.9	75	34	Clear skies, wind from the West

Source: LSA Associates, Inc., May 2007.

2. Noise Regulatory Framework.

The following section summarizes the regulatory framework related to noise, including federal, State, and the City of Benicia policies, plans and standards.

(1) U.S. Environmental Protection Agency (EPA). In 1972 Congress enacted the Noise Control Act, authorizing the EPA to publish descriptive data on the effects of noise and establish levels of sound "requisite to protect the public welfare with an adequate margin of safety." These levels are separated into health (hearing loss levels) and welfare (annoyance levels), as shown in Table IV.I-5. The EPA cautions that these identified levels are not standards because they do not take into account cost or feasibility.

Table IV.I-5: Summary of EPA Noise Levels

Effect	Level	Area
Hearing loss	$L_{eq}(24) \leq 70$ dB	All areas.
Outdoor activity interference and annoyance	$L_{dn} \leq 55$ dB	Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.
	$L_{eq}(24) \leq 55$ dB	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	$L_{eq} \leq 45$ dB	Indoor residential areas.
	$L_{eq}(24) \leq 45$ dB	Other indoor areas with human activities such as schools, etc.

Source: U.S. Environmental Protection Agency, 1974. "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety." March.

For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to an $L_{eq(24)}$ of 70 dB. The "(24)" signifies an L_{eq} duration of 24 hours. The EPA activity and interference guidelines are designed to ensure reliable speech communication at about 5 feet in the outdoor environment. For outdoor and indoor environments, interference with activity and annoyance should not occur if levels are below 55 dBA and 45 dBA, respectively.

The noise effects associated with an outdoor L_{dn} of 55 dB are summarized in Table IV.I-6. At 55 dB L_{dn}, 95 percent sentence clarity (intelligibility) may be expected at 3.5 meters, and little community reaction to noise levels. However, 1 percent of the population may complain about noise at this level and 17 percent may indicate annoyance.

(2) State of California. The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the "State Noise Insulation Standard," it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than than 60 dBA CNEL.

Table IV.I-6: Summary of Human Effects in Areas Exposed to 55 dBA L_{dn}

Type of Effects	Magnitude of Effect
Speech – Indoors	100 percent sentence intelligibility (average) with a 5 dB margin of safety.
Speech – Outdoors	100 percent sentence intelligibility (average) at 0.35 meters. 99 percent sentence intelligibility (average) at 1.0 meters. 95 percent sentence intelligibility (average) at 3.5 meters.
Average Commu-	None evident; 7 dB below level of significant complaints and threats of

The State has also established land use compatibility guidelines for determining acceptable noise levels for specified land uses. However, the City has adopted and modified the State's land use compatibility guidelines, as discussed below.

(3) City of Benicia General Plan. The City of Benicia addresses noise in both the Noise Element of the General Plan[4] and in Chapter 8.20 and 15.28 of the Municipal Code[5]. The following are the City of Benicia's Goals, Policies and Programs from the Noise Element of the General Plan that relate to the proposed Draft Specific Plan. The Noise Element of the General Plan adopts the "Maximum Allowable Noise Exposure for New Noise Sensitive Uses From Transportation Noise Sources" chart which is shown in Table IV.I-7 and the "Maximum Allowable Noise Exposure for New Noise-Sensitive Uses From Stationary Noise Sources" chart, which is shown in Table IV.I-8.

[4] Benicia, City of, 1999. *General Plan, Chapter 4. Community Health and Safety, D. Noise.*

[5] Benicia, City of, 2006. *Municipal Code, Chapter 8.20 and 15.28.* August 1.

Table IV.I-7: Maximum Allowable Noise Exposure for New Noise Sensitive Uses From Transportation Noise Sources

Land Use	Outdoor Activity Areas[a] L_{dn} /CNEL, dB	Interior Spaces L_{dn} /dB	Interior Spaces L_{eq}/dB[b]
Residential	60[c]	45	—
Transient Lodging	65[d]	45	
Hospitals, Nursing Homes	60[c]	45	—
Theaters, Auditoriums, Music Halls	—	—	35
Churches, Meeting Halls	60[c]	—	40
Office Buildings, Commercial Uses, Industrial, Manufacturing, Utilities[e]	—	—	45
Schools, Libraries, Museums	60[c]	—	45
Playgrounds, Neighborhood Parks	65	—	—

[a] Where the location of outdoor activity areas is unknown, or does not exist, the exterior noise level standard will be applied to the property line of the receiving land use. Refer to glossary for definition of outdoor activity area.

[b] As determined for a typical worst-case hour during periods of use.

[c] Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table. If these noise levels cannot be complied with, this will constitute a significant environmental impact.

[d] In the case of hotel/motel facilities or other transient lodging, with no proposed outdoor activity areas such as pool areas, only the interior noise level criterion will apply.

[e] Standards would only apply to areas requiring good speech intelligibility such as offices, conference rooms, etc.

Source: City of Benicia General Plan, 1999. Chapter 4: Community Health and Safety, D. Noise

Table IV.I-8: Noise Level Performance Standards for Noise-Sensitive Land Uses Which May Be Affected by Stationary Noise Sources

Land Use	Exterior Hourly L_{eq}, dB		Interior Hourly L_{eq}, dB	
	Daytime	Nighttime	Daytime	Nighttime
	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
Residential	55	50	40	35
Transient Lodging	55	50	40	35
Hospitals	—	—	40	35
Nursing Homes	55	50	40	35
Theaters, Auditoriums	—	—	35	35
Churches	55	50	40	40
Schools	55	50	45	45
Libraries	55	50	45	45

Source: City of Benicia General Plan, 1999. Chapter 4: Community Health and Safety, D. Noise

Community Noise

- **Goal 4.23:** Reduce or eliminate the effects of excessive noise.
  - **Policy 4.23.1:** Evaluate the compatibility of proposed projects with respect to existing and future transportation noise levels by utilizing Tables 4-3 and 4-4 *[see Tables IV.I-7 and IV.I-8]*.
  - **Policy 4.23.4:** Control development of noise-sensitive land uses in areas exposed to existing or projected noise which exceed the levels specified in Tables 4-3 and 4-4 unless the project includes specific, effective mitigation measures to reduce interior and exterior noise levels to those specified in Tables 4-3 and 4-4 *[see Tables IV.I-7 and IV.I-8]*.

- **Policy 4.23.5:** Accommodate roadway improvement projects for build-out of the General Plan by recognizing that existing noise-sensitive uses may be exposed to increased noise levels from roadway repairs, increased traffic, and increased travel speeds. When it is not practical to reduce traffic noise levels to those in Table 4-4 *[see Table IV.I-7]*, the following criteria will be used as a test of significance for the environmental review of roadway improvement projects:

  (a) Where existing noise levels are less than 60 dB L_{dn} at the outdoor activity area of a noise-sensitive use, a 5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant;

  (b) Where existing noise levels range between 60 and 65 dB L_{dn} at the outdoor activity area of a noise-sensitive use, a 3 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant; and

  (c) Where existing noise levels are greater than 65 dB L_{dn} at the outdoor activity area of a noise-sensitive use, a 1.5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

Transportation Noise Sources

- Table 4-3 *[see Table IV.I-7]* provides specific standards for determining the compatibility of proposed noise-sensitive land uses with transportation noise sources. Where noise-sensitive projects are proposed within areas which exceed the standards contained in Table 4-3 *[see Table IV.I-7]*, it is necessary to prepare a report that (a) performs an analysis of noise impacts, and (b) recommends mitigation measures to reduce noise levels on the site to comply with the standards in Table 4-3 *[see Table IV.I-7]*. This table is only to be used with proposed projects; the City's noise ordinance governs noise associated with existing uses.

Stationary Noise Sources

- Table 4-4 *[see Table IV.I-8]* provides specific performance standards for determining the compatibility of proposed noise-sensitive land uses with stationary noise sources. The performance standards are for new noise-sensitive developments which may be affected by an existing stationary noise source. The performance standards also apply to new developments that include a stationary noise source which may affect an existing noise sensitive development.

The City of Benicia's Municipal Code[6] further defines the guidelines for control of noise sources within the City limits of Benicia. The codes that are of particular significance as they relate to implementation of the Specific Plan are outlined as follows:

- *8.20.140 Machinery, equipment, fans and air conditioning.* It is unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient base noise level by more than five decibels. (Ord. 77-2 N.S. § 1, 1977; prior code § 12-206).

- *8.20.150 Construction of buildings and projects.* It is unlawful for any person within a residential zone, or within a radius of 500 feet there from, to operate equipment or perform any outside construction or repair work on buildings, structures, or projects or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction type device between the hours of 10:00 p.m. of any one day and 7:00 a.m. of the next day in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance unless beforehand a permit therefore has been duly obtained from the city manager or his designee. No permit shall be required to perform emergency work as defined in BMC 8.20.020. (Ord. 77-2 N.S. § 1, 1977; prior code § 12-301).

- *8.20.190 Ambient base noise level.* Where the ambient noise level is less than designated in this section the respective noise level in this section shall govern.

- *Excavating, grading and filling – Regulations.* The following regulations shall apply to all excavating, grading and filling: All grading and noise there from, including, but not limited to, warming of equipment motors, shall be limited to the hours between 7:00 a.m. and 6:00 p.m., Monday through Saturday, unless other times are specifically authorized in writing by the city engineer for special circumstances

[6] Benicia, City of, 2006. *Municipal Code, Chapter 8.20 and 15.28.* August 1.

3. Draft Specific Plan

The following Draft Specific Plan actions are applicable to noise:

- *Land Use Action 1.1.7*: Encourage developers to incorporate acoustical site planning into their projects, Recommended measures include:
  - Buffers and/or landscaped berms;
  - Orienting windows and outdoor living areas away from unacceptable noise exposure; and
  - Incorporating state-of-the-art structural sound technology.
- *Land Use Action 1.1.9*: Establish design requirements that require adequate buffers to mitigate potentially incompatible activities.
- *Land Use Action 1.1.10*: All development in the Lower Arsenal Mixed Use Area shall be required to record a deed restriction and include provision in any required Covenants, Conditions and Restrictions to notify future owners that this is a heavy industrial and manufacturing area with uses such as the nearby waste water treatment plant and port related uses that operate 24 hours a day and that are uses dependent on the tides and the Strait.
- *Land Use Action 1.3.3*: Mitigate potentially conflicting land uses within the Adams Street Mixed Use Zone through regulation and creation of internal courtyards within new buildings, designed to internalize light industrial activities that are potentially disruptive, noisy, or visually intrusive to surrounding uses.
- *Land Use Action 1.3.5*: Minimize industrial impacts, such as noise and visual clutter associated with light industry, by internalizing uses within "safe haven" courtyards to minimize conflicting land uses with planned artist spaces, office, or residential uses.
- *Land Use Action 1.5.3*: Allow live/work units where it can be demonstrated that adequate buffers exist, including noise buffers, and that the presence of residents will not significantly constrain industrial operations, including the flow of goods and materials.

4. Impacts and Mitigation Measures

a. Criteria of Significance. A project would have a significant noise impact if it would substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of the community in which it is located. The applicable noise standards governing the Plan Area are the State's noise criteria, the City of Benicia's Noise Element of the General Plan, and applicable sections of the City's Municipal Code. For the purposes of this Specific Plan, a noise impact is considered significant if the Specific Plan would result in:

- Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above the levels existing without the project.

b. Less-Than-Significant Noise Impacts. The following noise types/sources would produce less-than-significant noise effects within or near the Plan Area.

(1) **Vibration Impacts.** Specific tenants for proposed industrial and commercial uses have not yet been identified as part of the Specific Plan. However, based on proposed mixed uses, the Specific Plan would not contain sources of perceptible long-term ground borne vibration. Therefore ground borne vibration impacts from implementation of the Specific Plan would be less than significant for people working or residing within or near the Plan Area.

(2) **Railroad Noise Impacts.** The Southern Pacific Railroad (SPRR) line passes within 0.2 miles of the proposed Plan Area. The railroad line is located on the eastern side of Interstate 680 (I-680), the opposite side of the freeway from the Plan Area. Railroad loading facilities that operate within the Port are located within 200 feet of the Plan Area. The railroad loading/unloading area is significantly lower in elevation than the Plan Area. Industrial, commercial, and large storage facilities also block the line of site from the railroad to the majority of the Plan Area; buildings blocking the line of sight provide at least a 15 dBA reduction in noise levels. Additionally, due to the distance and location of the SPRR line from the site, ambient noise levels at the Plan Area would not be significantly affected by operations on this rail line in terms of 24 hour averaged noise levels such as CNEL or L_{dn}.

(3) **Aircraft Noise Impacts.** Oakland International Airport is located approximately 21 miles south of the Plan Area. Buchanan Field Airport is located approximately 5 miles south of the Plan Area. Napa County Airport is located approximately 13 miles to the northwest of the Plan Area. Travis Air Force Base is located approximately 17 miles northeast of the Plan Area. Based on the Travis Air Force Base Land Use Compatibility Plan (June 2002)[7] and the Buchanan Field FAR Part 150 Study (June 2006)[8], the Plan Area is located outside of the 60 dBA noise contours associated with these airport flight paths. Due to the Plan Area's distance from these airports and typical flight path orientation, the noise effect from aircraft noise sources is less than significant for the Plan Area in terms of 24 hour averaged noise levels such as CNEL or L_{dn}.

(4) **Supplemental Noise Study.** A supplemental noise study[9] was prepared for and submitted to the City on behalf of the Port of Benicia for consideration as part of the environmental review process. The report was submitted as part of a comment letter in the Draft EIR (July 2007) dated March 10, 2008. The report presents the results of long- and short-term noise measurements collected for various periods between August 27 and September 19, 2007 at locations in the Plan Area and at the Port of Benicia. The report quantifies various noise sources, including ship and rail activities, and draws conclusions regarding whether these noise sources would result in unacceptable noise levels in the Plan Area. The following discussion includes a summary of the key findings of the supplemental noise study and a discussion of whether the findings of the report indicate the potential for significant noise-related impacts due to implementation of the Draft Specific Plan. In summary, the data included in the report do not indicate significant noise-related impacts associated with implementation of the Draft Specific Plan.

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[7] Travis Air Force Base, 2002. Travis Air Force Base Land Use Compatibility Plan. Figure 2B Noise Contours. June 13.

[8] Buchanan Field Airport, 2006. FAR Part 150 Study. Figure D20 Future Base Case 2012 CNEL Noise Contours. June.

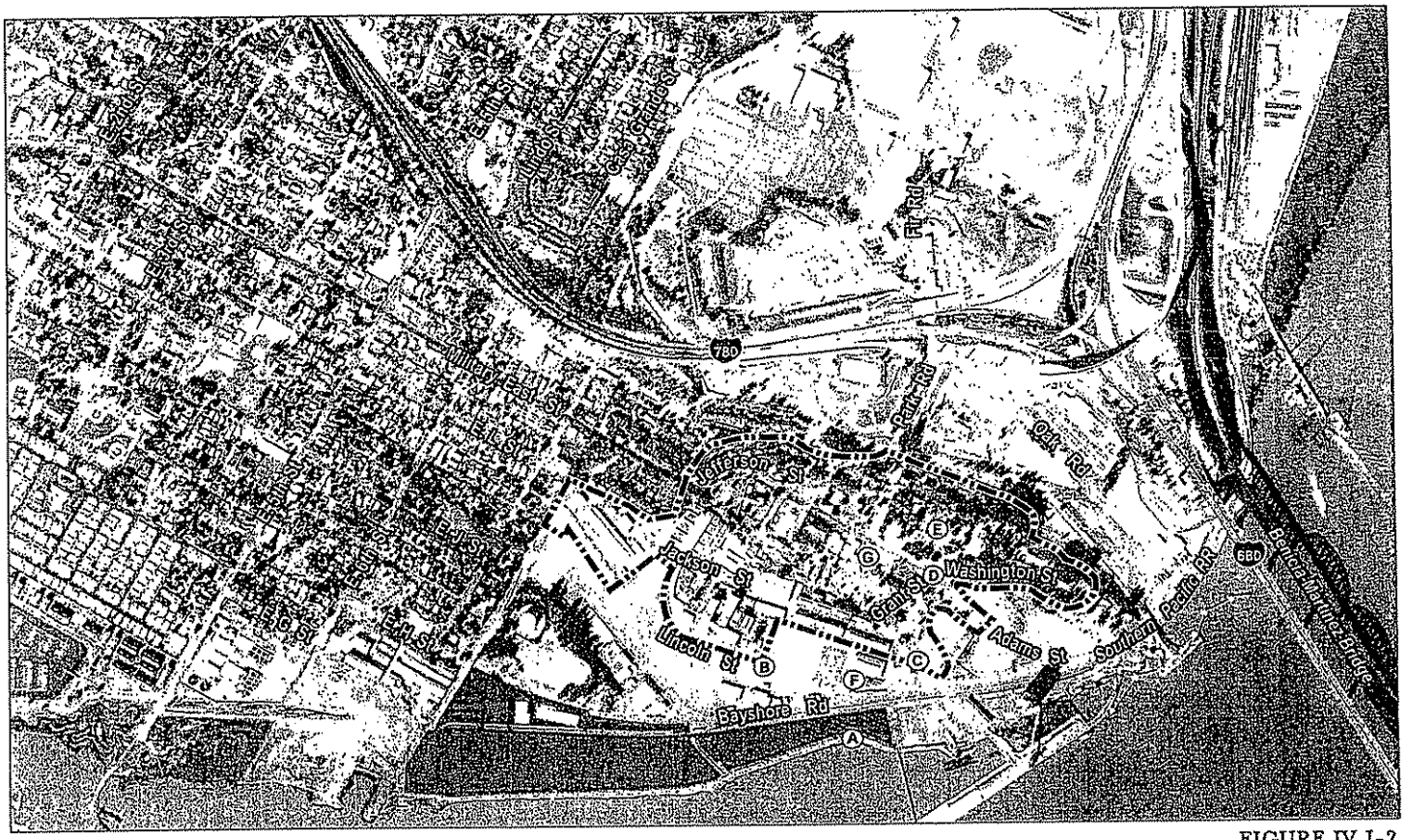
[9] Rosen, Goldberg, Der & Lewitz, Inc., 2007. Environmental Noise Report for: Port of Benicia and the Lower Arsenal Mixed Use Specific Plan, Benicia, CA. Prepared for Dana Dean, Attorney at Law. November 2.

Noise Measurement Locations. Noise measurements were collected to quantify noise emitted by industrial/transportation uses in the vicinity of the Plan Area and to identify noise levels in the area when industrial noise sources are not operating. The following bullet points describe the monitoring locations in the report and the duration of monitoring activities at each location. Figure IV.I-2 shows the noise monitoring locations.

- *Location A.* Measurements at this location were taken across from the pier where ships off-load their cargo (automobiles). Measurements began at 5:30 p.m. on September 11 and concluded at 2:30 p.m. on September 19, 2007.
- *Location B.* Measurements at this location were taken on the Port property line at the intersection of Lincoln and Polk Streets, at the boundary of the South of Grant Street Zone. Measurements were taken from 5:30 p.m. on August 27 to 3:30 p.m. on August 28 and from 2:20 p.m. on September 11 to 2:00 p.m. on September 16, 2007.
- *Location C.* Measurements at this location were taken at the Port property line at the east end of Tyler Street, which forms the eastern border of the South of Grant Street Zone. Measurements began at 10:30 a.m. and ended at 5:20 p.m. on August 28, 2007.
- *Location D.* Measurements at this location were taken at a speed limit sign at the intersection of Grant and Adams Streets, which is at the eastern boundary of the Adams Street Zone. The noise monitor operated from 10:00 a.m. to 3:30 p.m. on August 28, 2007.
- *Location E.* Measurements at this location were taken in front of the Jefferson Street Mansion in the Jefferson Ridge Zone. The noise monitor operated from 5:15 p.m. on August 27 to 3:30 p.m. on August 28, 2007.
- *Location F.* One 45-minute measurement was taken 65 feet south of the railcar loading machine According to the report, the measurement captured one full cycle of the railcar loading mechanism. No date or time of measurement is provided in the report.
- *Location G.* Measurements at this location were taken at the south side of the Simpkins Auto Body property within the Adams Street Zone. The measurement began at 3:30 p.m. on September 11 and ended at 2:00 p.m. on September 16, 2007.

Plan Area Noise Levels. To assess the effects of industrial/transportation noise sources on Specific Plan land uses, the noise report calculates expected noise levels in each of the Specific Plan development zones. These calculations are based on the noise measurements and the distance between the noise sources and the development zones in the Plan Area. The results of these calculations are provided in Table IV.I-9.

The noise report claims that development within all of the Plan Area development zones could be exposed to unacceptable noise levels. The report asserts that existing noise levels exceed the General Plan standards for day and nighttime noise levels, and that noise reductions of up to 23 dBA would be required to meet the General Plan standards for outdoor noise and that reductions of up to 38 dBA would be required to meet General Plan standards for indoor noise.



LSA

FIGURE IV.I-2

Lower Arsenal Mixed Use Specific Plan EIR

Noise Monitoring Locations in Supplemental Noise Study

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0 450 900
FEET

PLAN AREA

(A) NOISE MONITORING LOCATIONS

SOURCE: GOOGLE EARTH, 2005; ROSEN GOLDBERG DER AND LEWITZ, 2007

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Table IV.I-9: Noise Exposure by Development Zone

	A-Weighted Sound Level, dBA							
	South of Grant Street Zone		Grant Street Zone		Adams Street Zone		Jefferson Ridge Zone	
Noise Source	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
Train Switch Operating	61	92	57	88	57	88	56	87
Auto Hauler Service and Maintenance	56	---	42	---	38	---	35	---
Railcar Assembly/Loading	57	81	51	75	48	72	44	68
Ship Engine/Ventilation	59	---	57	---	57	---	56	---
Front End Loader	73	79	54	71	52	69	47	64

Leq = equivalent continuous sound level, which is the total sound energy of time-varying noise over a sample period.
Lmax = the highest exponential time-averaged sound level that occurs during a stated time period.
Source: Rosen, Goldberg, Der & Lewitz, Inc., 2007.

While the noise study provides additional ambient noise measurements that document transportation and operational noise sources within the Plan Area, the comparison of this data to the City's General Plan noise standards (and associated conclusions regarding the need for noise reductions) is inaccurately presented. As shown in Table IV.I-7, the City's maximum allowable transportation noise exposure standard for new noise-sensitive land uses is 60 dBA L_{dn} for residential outdoor activity areas and 45 dBA L_{dn} for residential interior spaces. All but one of the documented noise sources presented in Table IV.I-9 are transportation noise sources and not stationary sources (the auto hauler service and maintenance use is the only documented stationary source). Therefore, ambient noise measurements of transportation noise sources should be compared to the City's transportation day/night average (L_{dn}) noise standards and not the hourly L_{eq} stationary noise source standards.

For the one documented stationary noise source, the auto hauler service and maintenance noise source, the measured L_{eq} in the South of Grant Street Zone exceeds the City's exterior daytime hourly L_{eq} noise standard of 55 dBA L_{eq} for residential land uses by 1 dBA. The noise measurement documented welding activities that occurred for about 30 minutes. However, according to the City's Noise Element, stationary noise sources should be considered with respect to a typical hour of operation; noise levels associated with unusual peak hour events are exempt from the stationary noise performance standards. Therefore, one documented 30 minute measurement of 56 dBA L_{eq} does not constitute an exceedance of the stationary noise performance standards.

It should also be noted that the recorded noise levels were documented in terms of L_{eq} and not in the same noise level metric as the City's transportation day/night average (L_{dn}) noise standards, and therefore a comparison to the standards is difficult. It is observed that in areas where ambient noise levels drop off significantly at night, the daytime peak hour L_{eq} noise levels are much higher than the day/ night average L_{dn}. As documented in the supplemental report, such a drop in ambient noise levels does occur at night within the Plan Area. Only two documented noise measurements, as shown in Table IV.I-9, exceeded 60 dBA L_{eq}: the front end loader with a recorded noise level of 73 dBA L_{eq} and the train switch operations with a recorded noise level of 61 dBA L_{eq}. However, these noise sources are located over 160 and 280 feet, respectively, from the nearest potential development site within the South of Grant Street Zone. Therefore, at this nearest potential development site, noise from the front end loader noise source would attenuate to below 61 dBA L_{eq}, while noise from the train switch operations would attenuate to below 55 dBA L_{eq}. Again, according to this report these

measurements are in terms of the hourly average L_{eq}, while the City's maximum allowable noise exposure standard for new noise-sensitive land uses from transportation noise sources is stated in terms of the 24-hour weighted average L_{dn}. Because the ambient noise levels drop off significantly at night within the Plan Area, as documented in this report, even a conservative noise analysis for the site would show that these measured L_{eq} noise levels would not result in an exceedance of the City's 24-hour average maximum allowable noise exposure standard of 60 dBA L_{dn} from transportation noise sources for new residential land use development.

Therefore, based on the measurements presented in the supplemental noise study, no exceedances of the City's transportation noise source standards for new residential land uses were documented within the Plan Area and potential operational period impacts associated with these noise sources and residential land uses would be less than significant. Also, the lack of exceedances of the City's residential exterior noise standards would also indicate that the interior 45 dBA L_{dn} standard for residential interior spaces would also not be exceeded, based on sound attenuation associated with standard construction practices. Based on the EPA's Protective Noise Levels (EPA 550/9-79-100, November 1978), with a combination of walls, doors, and windows, standard construction for northern California residential buildings provides approximately 25 dBA in exterior-to-interior noise reduction with windows closed and a reduction of approximately 15 dBA with windows open. See the discussion of operational period noise impacts starting on page 265 for a discussion of stationary noise sources associated with Port operations that could exceed the day and nighttime exterior noise thresholds for future noise sensitive land uses in the Plan Area that would border the Port property.

c. **Significant Noise Impacts.** The following noise sources would produce significant noise levels within or near the Plan Area.

(1) **Construction Period Impacts.** The Plan Area is currently surrounded by residential, commercial and industrial land uses. Construction related to buildout of the Specific Plan would result in short-term noise impacts on these adjacent land uses, in addition to uses that already exist in the Plan Area. The level and types of noise impacts that would occur during construction are described below.

Impact NOI-1: Construction period activities could create significant short-term noise impacts on adjacent residential properties and on buildings that are currently or would become occupied within the Plan Area before completion of Specific Plan buildout. (S)

Noise levels from construction activities such as finished grading and building construction may range up to 91 dBA L_{max} at 50 feet from the active construction area for a limited time period. The transport of workers and construction equipment and materials to active construction sites would incrementally increase noise levels on access roads leading to the site. Noise from trucks would occur on the site for the duration of the construction period. Workers and construction equipment would use existing access routes. Noise from passing trucks (85 dBA L_{max} at 50 feet) would be similar to existing truck-generated noise.

Noise generated during excavation, grading, and building construction would result in potential noise impacts to off-site and on-site uses. Residential land uses that border the Plan Area may experience short-term noise generated by construction equipment and activities when construction occurs near the Plan Area boundary. Within the Plan Area are live-work land uses, museum land uses, comm-

ercial uses, as well as light industrial land uses. These existing land uses within the Plan Area may also experience high short-term noise levels associated with construction equipment and activities, when individual development projects are constructed.

Construction within the Plan Area is expected to require the use of earthmovers such as bulldozers and scrapers, loaders and graders, water trucks, and dump trucks. As shown in Table IV.I-10, the typical maximum noise level generated by each bulldozer on an active construction site is assumed to be 88 dBA L_{max} at 50 feet from the operating equipment. The maximum noise level generated by hydraulic backhoes is approximately 86 dBA L_{max} at 50 feet. The maximum noise level generated by water and other trucks is approximately 85 dBA L_{max} at 50 feet from these vehicles. Each doubling of the sound sources with equal strength would increase the noise level by 3 dBA. Assuming each piece of construction equipment operates at some distance apart from the other equipment, the worst-case combined noise level at the nearest uses to the site during this phase of construction would be 91 dBA L_{max} at a distance of 50 feet from an active construction area. Pile driving is not assumed to be necessary during construction activity and is therefore not addressed in this analysis.

Table IV.I-10: Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Range of Maximum Sound Levels (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	68 to 80	77
Scrapers	83 to 91	87
Haul Trucks	83 to 94	88
Electric Saws	66 to 72	70
Portable Generators	71 to 87	80
Rollers	75 to 82	80
Dozers	85 to 90	88
Tractors	77 to 82	80
Front-End Loaders	86 to 90	88
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	85
Air Compressors	76 to 89	85
Trucks	81 to 87	85

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

Construction-related noise impacts would occur throughout full buildout of projects within the Plan Area. Construction-related noise would affect different receptors for varying short-term amounts of time as different projects within the Plan Area are completed.

Implementation of the following multi-part mitigation measure would reduce this potential construction period noise impact to a less-than-significant level:

> Mitigation Measure NOI-1a: During all on-site excavation and grading, the project contractors for individual development projects shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. All heavy construction equipment used on project sites within the Plan Area shall be maintained in good operating condition, with all internal combustion, engine-driven equipment equipped with intake and exhaust mufflers that are in good condition. "Quiet" models of air compressors and other stationary noise sources shall be utilized where such technology exists.
>
> Mitigation Measure NOI-1b: The project contractors for individual development projects shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the construction site.

Mitigation Measure NOI-1c: The construction contractors for individual development projects shall locate equipment staging in areas that will create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the construction site during all project construction. The construction contractors shall post signs prohibiting unnecessary idling of internal combustion engines.

Mitigation Measure NOI-1d: The contractors for individual development projects shall further designate a "noise disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (e.g. beginning work too early, bad muffler) and institute reasonable measures warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at all construction sites within the Plan Area.

Mitigation Measure NOI-1e: The construction contractor shall ensure that all noise producing construction-related activities within 500 feet of any residential land uses shall be restricted to the hours of 7:00 a.m. to 10:00 p.m.; all excavating, grading, and filling activity, including, but not limited to, warming of equipment motors, shall be restricted to the hours of 7:00 a.m. to 6:00 p.m. Monday through Saturday. (LTS)

(2) Operational Period Impacts. Significant long-term noise impacts that could result from implementation of the Specific Plan include increased traffic noise levels and exposure of sensitive receptors to operational noise impacts. Depending on where buildings are situated and how they are constructed, the interior of some buildings and associated outdoor activity spaces may experience noise levels that exceed appropriate noise standards.

Impact NOI-2: Implementation of the proposed Specific Plan would increase traffic noise levels within the Plan Area and in surrounding areas. (S)

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the Plan Area. The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The existing and future traffic volumes for roadway segments in the Specific Plan vicinity were used in the traffic noise impact analysis. Table IV.I-11 shows anticipated existing plus project traffic noise levels adjacent to the roadway segments in the Specific Plan vicinity. Tables IV.I-12 and IV.I-13 show the predicted cumulative and the cumulative plus project traffic noise levels.

The City's maximum allowable noise exposure for new noise sensitive land uses from transportation noise sources is 60 dBA CNEL for the following land uses: residential, transient lodging, hospitals, nursing homes, churches, meeting halls, schools, libraries, museums, playgrounds, and neighborhood parks. Exceeding this standard would result in a significant impact. In addition, where existing noise levels are less than 60 dBA CNEL at the outdoor activity area of a noise-sensitive use, a 5 dBA increase in noise levels would be considered significant. Where existing noise levels range between 60 dBA and 65 dBA CNEL at the outdoor activity area of a noise-sensitive use, a 3 dBA increase in noise levels would be considered significant.

Table IV.I-11: Existing Plus Project Traffic Noise Levels

Roadway Segment	ADT[a]	Center line to 70 CNEL (feet)	Center line to 65 CNEL (feet)	Center line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane	Increase from Existing Conditions
East 5th Street - I-780 EB Ramps to Military East	13,600	< 50[b]	62	130	64.9	1.3
East 5th Street - Military East to East K Street	5,500	< 50	< 50	71	61.6	0.2
Military East - East 2nd Street to East 4th Street	6,200	< 50	< 50	96	63.0	0.4
Military East - East 5th Street to East 7th Street	10,600	< 50	64	137	65.9	2.4
Adams Street - Military East to Park Road	4,200	< 50	< 50	60	60.4	3.2
Grant Street - Adams Street to Park Road	3,700	< 50	< 50	55	59.9	4.6
Park Road - Bayshore Road to Elm Street	1,900	< 50	< 50	< 50	58.4	0.7

[a] Average daily traffic volume. [b] Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.
Source: LSA Associates Inc., May 2007.

Table IV.I-12: Cumulative Without Project Traffic Noise Levels

Roadway Segment	ADT[a]	Center line to 70 CNEL (feet)	Center line to 65 CNEL (feet)	Center line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
East 5th Street - I-780 EB Ramps to Military East	14,000	< 50[b]	63	133	65.1
East 5th Street - Military East to East K Street	7,500	< 50	< 50	88	62.9
Military East - East 2nd Street to East 4th Street	7,700	< 50	53	111	63.9
Military East - East 5th Street to East 7th Street	8,500	< 50	55	118	64.9
Adams Street - Military East to Park Road	2,000	< 50	< 50	< 50	57.2
Grant Street - Adams Street to Park Road	1,300	< 50	< 50	< 50	55.3
Park Road - Bayshore Road to Elm Street	2,200	< 50	< 50	< 50	59.0

Source: LSA Associates Inc., May 2007.

Table IV.I-13: Cumulative Plus Project Traffic Noise Levels

Roadway Segment	ADT[a]	Center line to 70 CNEL (feet)	Center line to 65 CNEL (feet)	Center line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Center line of Outermost Lane	Increase from Cumulative Conditions
East 5th Street - I-780 EB Ramps to Military East	17,800	< 50[b]	73	156	66.1	1.0
East 5th Street - Military East to East K Street	7,700	< 50	< 50	89	63.1	0.2
Military East - East 2nd Street to East 4th Street	8,300	< 50	55	117	64.2	0.3
Military East - East 5th Street to East 7th Street	12,900	< 50	73	156	66.7	1.8
Adams Street - Military East to Park Road	4,200	< 50	< 50	60	60.4	3.2
Grant Street - Adams Street to Park Road	3,700	< 50	< 50	55	59.9	4.6
Park Road - Bayshore Road to Elm Street	2,500	< 50	< 50	53	59.6	0.6

Source: LSA Associates Inc., May 2007.

Modeling results indicate that segments of Adams Street would experience significant traffic noise impacts with implementation of the proposed Specific Plan. Adams Street would experience traffic noise levels of up to 60.4 dBA CNEL at 50 feet from the centerline of the outermost travel lane; this represents an increase of 3.2 dBA above conditions without the project. Adams Street's traffic noise levels would exceed the City's maximum allowable noise exposure standard of 60 dBA CNEL for new noise sensitive land uses from transportation noise sources and would result in a greater than 3 dBA increase in traffic noise levels.

In addition to Adams Street, traffic noise levels above 60 dBA would occur outside of the roadway right of way lines for two other roadway segments within the Plan Area. The results show that the 60 dBA CNEL roadway noise contour would extend to 55 feet from the centerline of Grant Street, and to 53 feet from the centerline of Park Road. When noise-sensitive projects are proposed within areas which exceed the standards contained in Table 4-3 [see Table IV.I-7] of the City's General Plan Noise Element, a project specific acoustical analysis must be completed. This analysis must include recommended mitigation measures to reduce traffic noise levels on the project site to below the maximum allowable noise exposure standard of 60 dBA CNEL. Such an acoustical analysis would be required for any proposed noise sensitive development within the 60 dBA CNEL noise contour of these indicated roadway segments. Implementation of the following mitigation measure would reduce this traffic noise impact within the Plan Area to a less-than-significant level:

> Mitigation Measure NOI-2: A project-specific acoustical analysis report shall be completed which shall include measures that would reduce traffic noise impacts to below the maximum allowable noise exposure standard of 60 dBA CNEL. These measures shall be incorporated into the project. This analysis shall be performed for all proposed noise sensitive land use development projects in the following areas:
>
> - Within 60 feet of the centerline of Adams Street;
> - Within 55 feet of the centerline of Grant Street; and
> - Within 53 feet of the centerline of Park Road.

Implementation of this mitigation measure would sufficiently reduce traffic noise levels to comply with the City's General Plan requirements and would mitigate the traffic noise impacts within the Plan Area to a less-than-significant level. (LTS)

Impact NOI-3: Implementation of the proposed Specific Plan would expose sensitive land uses to significant operational noise impacts. (S)

Existing stationary noise sources in the vicinity of the Plan Area include the operational noise sources of the Port of Benicia and industrial and commercial land uses within the Plan Area. The Port of Benicia separates the Plan Area from the Carquinez Strait. The Port is privately owned and operated and primarily functions as an automotive distribution facility. Operational noises include loading and unloading operations of ships, trains and trucks, and the operational noises of moving, parking and storage of up to 42,000 vehicles at one time. Railroad loading facilities that operate within the Port are located within 200 feet of the Plan Area.

Port-related operations are dependent on the tides in Carquinez Strait and often operate 24 hours a day. Such operational noise from the Port could exceed the nighttime noise level performance

standards (shown in Table IV.I-8) for future noise sensitive land uses in the Specific Plan area that would border the Port property. Noise sensitive development within the Specific Plan area would need to incorporate necessary noise attenuation measures to reduce such nighttime noise levels to meet the City's nighttime interior noise level standards.

Noise within the Plan Area would also be generated by industrial, manufacturing, and processing land uses as well as general and business services. These land uses would be permitted in the Adams Street, Grant Street, and South of Grant Street zones. Such land uses would include stationary noise sources such as loading and unloading operations of trucks at commercial and industrial facilities and at self storage facilities. Noise sources also include light industrial noise sources such as metal shop and auto repair work.

Noise sensitive residential land uses would be permitted (typically with a use permit) in every zone of the Specific Plan except for a portion of the South of Grant Street zone: along Jackson Street west of Polk Street and south of Grant Street. The maximum allowable exterior daytime noise exposure from stationary noise sources, as shown in Table IV.I-8, is limited to 55 dBA hourly L_{eq} for the following land uses: residential, transient lodging, nursing homes, churches, schools, and libraries. These performance standards are for new noise-sensitive developments that may be affected by an existing stationary noise source. They also apply to new developments that include a stationary noise source which may affect an existing noise sensitive development. In addition, Municipal Code 8.20.140 prohibits operation of any machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device that would cause the noise level at the property line to exceed the ambient base noise level by more than 5 dBA. Ambient noise measurements taken on May 16, 2007 indicate existing operational noise levels from Port and industrial land use operations that currently exist on the site range from 52.2 dBA to 68.8 dBA L_{eq} within the proposed Plan Area.

The Specific Plan's policies address potential noise impacts related to the combination of planned noise sensitive land uses and stationary noise sources within the same zone. Policy recommendations (see section IV.I.3, Draft Specific Plan above) include buffers, landscaped berms, orienting windows and outdoor living areas away from noise sources, incorporating state-of-the-art structural sound attenuating technology, and creating internal courtyards within new buildings designed to minimize light industrial activity noise impacts.

The Specific Plan outlines policies and plans to address the potential noise impacts of a mixed-use project. However, implementation of the following two-part mitigation measure would be required to ensure that stationary noise impacts would be below the daytime exterior noise threshold of 55 dBA hourly L_{eq} and the nighttime exterior noise threshold of 50 dBA hourly L_{eq}.

> Mitigation Measure NOI-3a: Project-specific acoustical studies shall be performed for all proposed noise-sensitive development within the Plan Area. The acoustical studies shall describe how the City's exterior and interior performance standards (shown in Table 4-4 [see Table IV.I-8 above] of the Noise Element of the General Plan) for proposed noise sensitive land uses which may be affected by stationary noise sources will be achieved. These acoustical studies must satisfy the requirements set forth in Title 24, Part 2, of the California Administrative Code, Noise Insulation Standards, for multiple-family attached residential units, hotels and motels. These studies must be performed and submitted to the City for review prior to issuance of the City's building permits.

Mitigation Measure NOI-3b: Project-specific acoustical studies shall be performed for all proposed projects within the Plan Area located adjacent to noise sensitive land uses, and that would include the operation of any machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device that would generate noise levels in excess of the City's exterior noise standards. These studies shall include mitigation that would reduce these stationary noise impacts to comply with the City's standards set forth in the City's Municipal Code section *8.20.140*. These studies must be performed and submitted to the City for review prior to issuance of the City's building permits. (LTS)

Implementation of this mitigation measure would sufficiently reduce stationary noise levels to comply with the City's General Plan and Municipal Code requirements and would mitigate the stationary noise impacts within the Plan Area to a less-than-significant level.

N. GLOBAL CLIMATE CHANGE, ENERGY USE AND SUSTAINABILITY

This section of the EIR discusses the effects of the maximum potential development in the Specific Plan Area from a multi-disciplinary perspective, with a focus on the three interrelated topics of global climate change, energy use, and sustainability. CEQA requires that lead agencies consider the reasonably foreseeable adverse environmental effects of projects considered for approval. Global climate change can be considered an "effect on the environment" and an individual project or plan's incremental contribution to global climate change can have a cumulatively significant impact. Cumulative impacts are the collective impacts of one or more past, present, or future projects, that when combined, result in adverse changes to the environment. Climate change is a global environmental problem in which: (a) any given development project contributes only a small portion of any net increase in greenhouse gases (GHGs) and (b) global growth is continuing to contribute large amounts of GHGs across the world. Therefore, this section addresses climate change primarily as a cumulative impact.

Closely related to global climate change are the issues of sustainability and energy, which have only recently become topics of considerable interest in CEQA documents. Although sustainable development guidelines have been adopted by cities, counties, and State agencies throughout California, the State *CEQA Guidelines* have not been revised to specifically require a substantive analysis of how development projects affect the long-term uses of resources (although CEQA Guidelines Section 15126.2(c) requires an analysis of significant irreversible changes that would result from a development project, including changes in land use that would commit future generations, irreversible changes from environmental actions, and the consumption of non-renewable resources).

1. Global Climate Change Setting

The following discussion provides an overview of global climate change, its causes and potential effects, and a summary of emission sources and inventories. The regulatory framework relating to global climate change is also summarized. The global climate change information and analysis provided in this report rely primarily on the Climate Action Team 2006 Final Report, Intergovernmental Panel on Climate Change (IPCC) Assessment Reports, various California Air Resources Board (ARB) staff reports, and other related global climate change documents that provide background information on the impacts of greenhouse gas emissions.

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

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended period of time. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures. Global surface temperatures have risen by 0.74°C ± 0.18°C over the last 100 years (1906 to 2005). The rate of warming over the last 50 years is almost double that over the last 100 years.[1] The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human

[1] Intergovernmental Panel on Climate Change (IPCC), 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.*

activities. The increased amounts of carbon dioxide (CO_2) and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[2]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:[3]

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF_6)

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO_2, methane, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere.

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

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each greenhouse gas to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG. The definition of GWP for a particular greenhouse gas is the ratio of heat trapped by one unit mass of the greenhouse gas to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2eq). Table IV.N-1 shows the GWPs for each type of GHG. For example, sulfur hexafluoride is 22,800 times more potent at contributing to global warming than carbon dioxide. The following discussion summarizes the characteristics of the six primary GHGs.

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

[3] The greenhouse gases listed are consistent with the definition in Assembly Bill (AB) 32 (Government Code 38505), discussed later in this section.

Table IV.N-1: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide	50-200	1
Methane	12	25
Nitrous Oxide	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoromethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

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

(1) **Carbon Dioxide (CO_2).** In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals and plants, volcanic outgassing, decomposition of organic matter, and evaporation from the oceans. Human-caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO_2 to the atmosphere. Natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO_2, and consequently, the gas is building up in the atmosphere. The concentration of CO_2 in the atmosphere has risen about 30 percent since the late 1800s.[4]

In 2002, CO_2 emissions from fossil fuel combustion accounted for approximately 98 percent of man-made CO_2 emissions and approximately 84 percent of California's overall GHG emissions (CO_2eq). The transportation sector accounted for California's largest portion of CO_2 emissions, with gasoline consumption making up the greatest portion of these emissions. Electricity generation was California's second largest category of GHG emissions.

(2) **Methane (CH_4).** Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (burning of coal, oil, natural gas, etc.). Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California, followed by enteric fermentation (emissions from the digestive processes of livestock).[5] Agricultural processes such as manure management and rice cultivation are also significant sources of manmade CH_4 in California. Methane accounted for approximately 6 percent of gross climate change emissions (CO_2eq) in California in 2002.[6]

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

[5] California Air Resources Board, Greenhouse Gas Inventory Data - 1990 to 2004. http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed November 2008.

[6] Ibid.

It is estimated that over 60 percent of global methane emissions are related to human-related activities.[7] As with CO_2, the major removal process of atmospheric methane – a chemical breakdown in the atmosphere – cannot keep pace with source emissions, and methane concentrations in the atmosphere are increasing.

(3) **Nitrous Oxide (N_2O).** Nitrous oxide is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N_2O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California. Nitrous oxide emissions accounted for approximately 7 percent of man-made GHG emissions (CO_2eq) in California in 2002.

(4) **Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF_6).** HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.[8] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry, which is active in California, leads to greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 3.5 percent of man-made GHG emissions (CO_2eq) in California in 2002.[9]

(5) **Temperature Increase.** The latest projections, based on state-of-the-art climate models, indicate that temperatures in California are expected to rise 3 to 10.5°F by the end of the century.[10] Because GHGs persist for a long time in the atmosphere (see Table V.N-1), accumulate over time, and are generally well-mixed, their impact on the atmosphere cannot be tied to a specific point of emission.

Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- Natural processes within the climate system (e.g., changes in ocean circulation and reduction in sunlight from the addition of GHGs and other gases to the atmosphere from volcanic eruptions); and

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

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

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

[10] California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California.* July.

- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., from deforestation, reforestation, urbanization, and desertification).

The primary effect of global climate change has been a rise in the average global tropospheric[11] temperature of 0.2°C per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include, but are not limited to:

- The loss of sea ice and mountain snow pack, resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;
- Rise in global average sea level primarily due to thermal expansion and melting of glaciers and ice caps in the Greenland and Antarctic ice sheets;
- Changes in weather that include widespread changes in precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;
- Decline of the Sierra Nevada snowpack, which accounts for a significant amount of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years;
- Increase in the number of days conducive to ozone formation by 25 to 85 percent (depending on the future temperature scenario) in high ozone areas of Los Angeles and the San Joaquin Valley by the end of the 21st century; and
- High potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level.

b. Emissions Sources and Inventories. An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, California, and local GHG emission inventories.

(1) Global Emissions. Worldwide emissions of GHGs in 2004 were 27 billion metric tons of CO_2eq per year.[12] Global estimates are based on country inventories developed as part of programs of the United Nations Framework Convention on Climate Change (UNFCCC).

(2) U.S. Emissions. In 2004, the United States emitted about 7.3 billion metric tons of CO_2eq or about 25 tons/year/person. Of the four major sectors nationwide – residential, commercial, industrial and transportation – transportation accounts for the highest amount of GHG emissions

[11] The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

[12] Combined total of Annex I and Non-Annex I Country CO_2eq emissions. United Nations Framework Convention on Climate Change (UNFCCC), 2007. *Greenhouse Gas Inventory Data.* Information available at http://unfccc.int/ghg_data/ghg_data_unfccc/time_series_annex_i/items/3814.php and http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf.

(approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion. Between 1990 and 2006, total U.S. GHG emissions rose approximately 14.7 percent.[13]

(3) State of California Emissions. According to ARB emission inventory estimates, California emitted approximately 480 million metric tons[14] of CO_2eq emissions in 2004.[15] This large number is due primarily to the sheer size of California compared to other states. By contrast, California has the fourth lowest per-capita carbon dioxide emission rate from fossil fuel combustion in the country, due to the mild climate of the State's densely-populated coastal zone (which reduces energy consumption for heating and cooling), and the success of its energy efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than half of what it would have been otherwise.[16]

The California EPA Climate Action Team stated in its March 2006 report that the composition of gross climate change pollutant emissions in California in 2002 (expressed in terms of CO_2eq) was as follows:

- Carbon dioxide (CO_2) accounted for 83.3 percent;
- Methane (CH_4) accounted for 6.4 percent;
- Nitrous oxide (N_2O) accounted for 6.8 percent; and
- Fluorinated gases (HFCs, PFC, and SF_6) accounted for 3.5 percent.[17]

The ARB estimates that transportation is the source of approximately 38 percent of the State's GHG emissions in 2004, followed by electricity generation (both in-State and out-of-State) at 23 percent, and industrial sources at 20 percent. The remaining sectors of GHG emissions are residential and commercial activities at 9 percent, agriculture at 6 percent, high global warming potential gases at 3 percent, and recycling and waste at 1 percent.[18]

ARB is responsible for developing and updating the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted to and removed from the atmosphere by human activities within the State of California and supports the AB 32 Climate Change Program. ARB's current GHG emission inventory covers the years 1990-2004 and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, agricultural lands, etc.). The emission inventory estimates are based on the actual amount of all fuels combusted in the State, which accounts for over 85 percent of the GHG emissions within California.

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[13] U.S. Environmental Protection Agency (EPA), 2008. The U.S. Greenhouse Gas Emissions and Sinks: Fast Facts. http://www.epa.gov/climatechange/emissions/downloads/2008_GHG_Fast_Facts.pdf.

[14] A metric ton is equivalent to approximately 1.1 tons.

[15] California Air Resources Board, Greenhouse Gas Inventory Data - 1990 to 2004. http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed November 2008.

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

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

[18] California Air Resources Board (ARB), 2008. http://www.climatechange.ca.gov/inventory/index.html. September.

ARB staff has projected 2020 unregulated GHG emissions, which represent the emissions that would be expected to occur in the absence of any GHG reduction actions. ARB staff estimates the State-wide 2020 unregulated GHG emissions will be 596 million metric tons (MMT) of CO_2eq. GHG emissions in 2020 from the transportation and electricity sectors as a whole are expected to increase, but remain at approximately 38 percent and 23 percent of total CO_2eq emissions, respectively. The industrial sector consists of large stationary sources of GHG emissions and the associated percentage of the total 2020 CO_2eq emissions is projected to be 17 percent. The remaining sectors of GHG emissions in 2020 are high global warming potential gases at 8 percent, residential and commercial activities at 8 percent, agriculture at 5 percent, and recycling and waste at 1 percent.[19]

(4) Bay Area Emissions. The Bay Area Air Quality Management District (BAAQMD) established a climate protection program in 2005 to acknowledge the link between climate change and air quality. BAAQMD regularly prepares inventories of criteria and toxic air pollutants to support planning, regulatory and other programs. The most recent emissions inventory estimates greenhouse gas emissions produced by the San Francisco Bay Area in 2007.[20] The inventory updates BAAQMD's previous GHG emission inventory for the base year 2002, which was published in November 2006.

In 2007, 102.6 million metric tons of CO_2eq of greenhouse gases were emitted in the San Francisco Bay Area. Fossil fuel consumption in the transportation sector was the single largest source of the San Francisco Bay Area's greenhouse gas emissions in 2007. The transportation sector, including on-road motor vehicles, locomotives, ships and boats, and aircraft, contributed over 40 percent of greenhouse gas emissions in the Bay Area. The industrial and commercial sector (excluding electricity and agriculture) was the second largest contributor with 34 percent of total GHG emissions. Energy production activities, such as electricity generation and co-generation, were the third largest contributor with approximately 15 percent of the total GHG emissions. Off-road equipment, such as construction, industrial, commercial, and lawn and garden equipment, contributed 3 percent of GHG emissions.

(5) City of Benicia. In 2007, the City of Benicia adopted a resolution to act on climate protection and join the Local Governments for Sustainability (ICLEI) Cities for Climate Protection Campaign. The City received a Climate Change Protection Grant from BAAQMD to fund: 1) an emissions inventory, 2) a subsequent Climate Action Plan, and 3) concurrent staff training in climate change prevention and greenhouse gas reduction. The City completed the greenhouse gas emissions inventory in September 2008 and adopted greenhouse gas reduction targets for City government and the Benicia community as a whole.[21] Emissions were provided for the baseline year of 2000 and the interim year of 2005. The emissions for the community inventory included the transportation, waste, residential, and commercial/industrial/other sectors. The community inventory showed that the City emitted a total of 4.0 MMT of CO_2eq in 2000, increasing to 4.2 of MMT in 2005. The commercial/industrial/other sector was the largest source of emissions at more than 94 percent. Businesses, including the Valero Refinery, generated 3.8 MMT of CO_2eq in 2000, increasing to 4.0 MMT of CO_2eq in 2005. Transportation was the next largest sector, responsible for 167,954 metric

[19] California Air Resources Board (ARB), 2008. http://www.arb.ca.gov/cc/inventory/data/forecast.htm. September.

[20] Bay Area Air Quality Management District, 2008. *Source Inventory of Bay Area Greenhouse Gas Emissions.* December.

[21] Benicia, City of, 2008. *Greenhouse Gas Emissions Inventory Report.* September.

tons of CO_2eq in 2000 and 158,346 metric tons of CO_2eq in 2005. Emissions from the residential sector decreased from 45,984 metric tons of CO_2eq in 2000 to 41,071 metric tons of CO_2eq in 2005. Waste disposal was responsible for 23,650 metric tons of CO_2eq in 2000, falling to 21,998 metric tons of CO_2eq in 2005. The forecasted increase of community-wide emissions from 2005 to 2020 is 5.1 MMT of CO_2eq, representing an approximately 21 percent increase. The adopted emission reduction target for the community is 10 percent below 2000 levels in 2020, or 3.6 MMT of CO_2eq.[22] The City is currently developing a Climate Action Plan (CAP) that will identify strategies to meet the adopted targets. The CAP is scheduled for adoption by the City Council in the fall of 2009.

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

(1) **Federal Regulations.** There are no adopted federal regulations for GHG emissions. In February 2002, the United States government announced a comprehensive strategy to reduce the GHG intensity[23] of the American economy by 18 percent over the 10-year period from 2002 to 2012. This strategy has three basic components: (1) slowing the growth of emissions; (2) strengthening science, technology and institutions; and (3) enhancing international cooperation.[24]

To meet this goal, the federal multiagency Climate Change Science Program (CCSP) was established to investigate natural and human-induced changes in the Earth's global environmental system; to monitor, understand, and predict global change; and to provide a sound scientific basis for national and international decision-making. The federal government established the multi-agency Climate Change Technology Program (CCTP) to accelerate the development and deployment of key technologies which offer great promise to reduce GHG emissions. The CCTP works closely with CCSP to make further progress in understanding and addressing global climate change. The United States Environmental Protection Agency's (EPA's) primary role in CCSP is evaluating the potential consequences of climate variability and the effects on air quality, water quality, ecosystems, and human health in the United States.

Currently there are no adopted federal regulations to control global climate change. However, recent court cases may change the voluntary approach to address global climate change and greenhouse gas emissions. On April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO_2 emissions under the federal Clean Air Act (CAA).

Over a decade ago, most countries joined an international treaty, the United Nations Framework Convention on Climate Change (UNFCCC), to begin to consider what can be done to reduce global warming and to cope with the physical and socioeconomic effects of climate change. More recently, a number of nations have ratified an amendment to the treaty: the Kyoto Protocol, which has a more powerful effect on its signatories. Because the Kyoto Protocol will affect virtually all major sectors of the economy, it is considered to be the most far-reaching agreement on the environment and sustainable development ever adopted. Most of the world's countries eventually agreed to the Protocol, but some nations (including the United States) chose not to ratify it.

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[22] Ibid.

[23] GHG intensity measures the ratio of GHG emissions to economic output.

[24] Environmental Protection Agency, 2008. Climate Change: Basic Information. www.epa.gov/climatechange/basicinfo.html.

As of July 2008, 182 countries have ratified the Kyoto Protocol. Participating nations are separated into Annex 1 countries (i.e., industrialized nations) and Non-Annex 1 countries (i.e., developing nations) that have different requirements for GHG reductions. The goal of the Protocol is to achieve overall emissions reduction targets for six GHGs by 2012. The six GHGs regulated under the Protocol are CO_2, CH_4, N_2O, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons. Each nation must reduce GHG emissions by a certain percentage below 1990 levels (e.g., 8 percent reduction for the European Union, 6 percent reduction for Japan). The average reduction target for nations participating in the Kyoto Protocol is approximately 5 percent below 1990 levels.

(2) **State Regulations.** In 1967, the California Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus, the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board, to establish the ARB. Since its formation, the ARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems.

In a response to the transportation sector's significant contribution to California's CO_2 emissions, Assembly Bill 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 requires ARB to set GHG emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. In setting these standards, the ARB considered cost effectiveness, technological feasibility, and economic impacts. ARB adopted the standards in September 2004. When fully phased-in, the near-term (2009 to 2012) standards would result in a reduction in GHG emissions of approximately 22 percent compared to the emissions from the 2002 fleet, while the mid-term (2013 to 2016) standards would result in a reduction of approximately 30 percent. To set its own GHG emissions limits on motor vehicles, California was required to receive a waiver from the EPA. In December 2007, the EPA denied the request from California for the waiver. However, on June 30, 2009, EPA granted the waiver of Clean Air Act preemption to California for its greenhouse gas emission standards for motor vehicles beginning with the 2009 model year. Notice of the decision was published in the Federal Register on July 8, 2009.

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

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. This effort aims to reduce GHG emissions to 1990 levels by 2020. The ARB established the level of GHG emissions in 1990 at 427 MMT of CO_2eq. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires ARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by ARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other

measures.[25] Emission reductions that are projected to result from the recommended measures in the Scoping Plan are expected to total 174 MMT of CO_2eq, which would allow California to attain the emissions goal of 427 MMT of CO_2eq by 2020. The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The ARB rulemaking process includes preparation and release of each of the draft measures, public input through workshops and a public comment period, followed by an ARB Board hearing and rule adoption.

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed ARB and the newly created Climate Action Team (CAT) [26] to identify a list of "discrete early action GHG reduction measures" that can be adopted and made enforceable by January 1, 2010. On January 18, 2007, Governor Schwarzenegger signed Executive Order S-1-07, further solidifying California's dedication to reducing GHGs by setting a new Low Carbon Fuel Standard. The Executive Order sets a target to reduce the carbon intensity of California transportation fuels by at least 10 percent by 2020 and directs ARB to consider the Low Carbon Fuel Standard as a discrete early action measure.

In June 2007 ARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture).[27] Discrete early action measures are measures that are required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The ARB adopted additional early action measures in October 2007 that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of perfluorocarbons from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and sulfur hexafluoride (SF_6) reductions from the non-electricity sector. The combination of early action measures is estimated to reduce State-wide GHG emissions by nearly 16 MMT.[28]

To assist public agencies in the mitigation of GHG emissions or analyzing the effects of GHGs under CEQA, including the effects associated with transportation and energy consumption, Senate Bill 97 (Chapter 185, 2007) requires the Governor's Office of Planning and Research (OPR) to develop CEQA guidelines on how to minimize and mitigate a project's GHG emissions. OPR is required to prepare, develop, and transmit these guidelines on or before July 1, 2009 and the Resources Agency is required to certify and adopt them by January 1, 2010. On April 13, 2009, OPR submitted its proposed amendments to the *CEQA Guidelines* to the Secretary of Natural Resources. These proposed amendments, which may be refined through a public process that is currently underway as of the summer of 2009, suggest that global climate change analyses in CEQA documents should be

[25] California Air Resources Board, 2008. *Climate Change Proposed Scoping Plan: a framework for change.* October.

[26] CAT is a consortium of representatives from State agencies who have been charged with coordinating and implementing GHG emission reduction programs that fall outside of ARB's jurisdiction.

[27] California Air Resources Board, 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration.* October.

[28] California Air Resources Board, 2007. "ARB approves tripling of early action measures required under AB 32". News Release 07-46. http://www.arb.ca.gov/newsrel/nr102507.htm. October 25.

conducted for all projects that release GHGs, and that mitigation measures to reduce emissions should be incorporated into projects, to the extent feasible. The proposed amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations about the significance of environmental effects.

SB 375, signed into law on October 1, 2008, is intended to enhance ARB's ability to reach AB 32 goals by directing ARB to develop regional GHG emissions reduction targets to be achieved within the automobile and light truck sectors for 2020 and 2035. ARB will work with California's 18 metropolitan planning organizations to align their regional transportation, housing, and land use plans and prepare a "Sustainable Communities Strategy" to reduce the number of vehicle miles traveled in their respective regions and demonstrate each region's ability to attain its greenhouse gas reduction targets.

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

2. Sustainability Setting

The following discussion summarizes concepts of sustainability from three sources: 1) the City of Benicia General Plan; 2) the State of California General Plan Guidelines; 3) the American Planning Association Policy Guide on Planning for Sustainability; and 4) the US Green Building Council's LEED for Neighborhood Development Rating System.

a. City of Benicia General Plan. The City of Benicia designates creating a sustainable community as "a primary goal and objective of the General Plan." The General Plan notes that sustainability "conveys long-term interdependent economic and environmental goals that promote efficient land use. It is a way of thinking and acting responsibly with respect to environmental, social, and economic issues at ever-widening levels of awareness or "integration." That is, what is done at the project or local level can affect all levels of the environment, including the local community, neighboring regions, the country, and the world."

The following characteristics or end results of sustainable planning are listed in the General Plan:

- Urban areas that reflect a long-term economic horizon;
- Efficient land patterns that are not overly energy-intensive;
- Places with sufficient linkages to the local and regional economy to assure long-term job creation and economic vitality;
- Support of ecologically-sensitive design features; and
- Placing value in the public realm.

b. State of California General Plan Guidelines. The State General Plan Guidelines address issues of sustainability in the context of encouraging communities to incorporate environmental

justice considerations (i.e., the fair treatment of people of all races, cultures and incomes with respect to environmental laws) into their long-term plans. In doing so, the General Plan Guidelines seek to translate the overarching goals of sustainability to community development by answering the question: What does sustainable development look like on the ground? The General Plan Guidelines note: "In a community that is developing sustainably, the neighborhood is the basic building block of urban design and is characterized by walkability, mixed-use development, and mixed-income housing."

The General Plan Guidelines list the following sustainable development goals and policies (which include energy conservation):

- **Decrease urban sprawl** through: the promotion of compact, mixed-use, transit-oriented infill development; the restoration of urban centers; and limiting non-contiguous development.
- **Protect open space and working landscapes** through: conservation of agricultural lands and lands of scenic/recreational value; and using open space to define urban communities.
- **Protect environmentally sensitive lands** by conserving habitat lands and habitat connectivity; minimizing impacts to watershed functions; and avoiding natural hazards.
- **Create strong local and regional economies** by: encouraging a jobs/housing balance; providing adequate multi-income housing; encouraging the expansion of telecommunications infrastructure; and providing a fair and predictable land use planning process.
- **Promote energy and resources efficiency** through: supporting efficient industries and waste reduction programs; promoting alternative forms of transportation; and promoting energy- and resource-efficient buildings.
- **Promote equitable development** through: fair treatment under development policies and regulations; promoting mixed-income housing development; increasing access; promoting economic opportunity across the community; and protecting culturally significant sites.

c. **Guides on Planning for Sustainability.** The American Planning Association (APA) is the primary professional organization for those in the fields of metropolitan and regional development, community development, urban design, and environmental planning. APA's Policy Guide on Planning for Sustainability is one of the most comprehensive policy-oriented approaches to sustainable development and was adopted by the APA Board of Directors in 2000. The APA Policy Guide links global un-sustainability indicators (e.g., global warming, declining fisheries, soil degradation, species extinction, and economic inequity) and un-sustainability indicators in the United States (e.g., suburban sprawl, segregation, loss of agricultural land and open space, traffic congestion, and loss of wetlands and degradation of water resources) to general policy objectives intended to promote sustainability. The intent of the APA Policy Plan is that these general objectives (listed below) be used to create and implement sustainability policies in a diversity of planning environments:

- Reduce dependence on fossil fuels, extracted underground metals and minerals.
- Reduce dependence on chemicals and other manufactured substances that can accumulate in nature.
- Reduce dependence on activities that harm life-sustaining ecosystems.
- Meet the hierarchy of present and future human needs fairly and efficiently.

The following 13 policy positions were developed on the basis of the general objectives:

1. Encourage alternatives to the use of gas-powered vehicles through public transit, alternatively-fueled vehicles, and bicycle and pedestrian-oriented design.
2. Encourage all types of development to use alternative energy sources and meaningful energy conservation measures.
3. Encourage development, agriculture, and other land uses that minimize the use of extracted underground minerals.
4. Encourage development and businesses to reduce the use of chemicals and synthetic compounds.
5. Encourage methods of landscape design, landscape and park maintenance, and agriculture that eliminate use of synthetic fertilizers and pest control and encourage the use of compost and water conservation.
6. Support compact and mixed-use development that minimizes the need to drive, and the reclamation of brownfield sites.
7. Conserve undeveloped land, open space, and agricultural land; consciously restore ecosystems and avoid disruptions to natural ecosystems and floodplains.
8. Encourage forms of development, business, and agriculture that reduce the use of water and employ innovative wastewater treatment.
9. Equitably protect public health, safety, and welfare.
10. Encourage businesses, communities, institutions, and development that pursue reduction and re-use of by-products and waste.
11. Encourage participatory and partnership approaches to planning that involve the local community.
12. Support partnerships and initiatives with other organizations that: support development of technologies that promote sustainability; and provide best available data for making informed decisions about development.
13. Support policies, programs, and legislation that improve sustainability.

d. USGBC LEED Neighborhood Development Rating System. The U.S. Green Building Council (USGBC) has developed Leadership in Energy and Environmental Design (LEED), an internationally recognized green building certification system. LEED provides a framework for identifying and implementing practical and measurable green building design features, including energy saving, water efficiency, and CO_2 emissions reductions. The LEED for Neighborhood Development Rating System (LEED-ND) extends the benefits of LEED beyond the building footprint into the neighborhood it serves and integrates the principles of smart growth, urbanism and green building into a national system for neighborhood design. LEED-ND is a collaboration among USGBC, the Congress for the New Urbanism and the Natural Resources Defense Council.

The benefits of developing a community to LEED-ND standards are to encourage healthy living, reduce urban sprawl, protect threatened species, and increase transportation choice and decrease automobile dependence. While a draft rating system is available and the program has undergone pilot testing, the LEED-ND rating system is still in the development process. The pilot program began in

2007, and the most recent comment period closed in June 2009. The rating system is anticipated to be available in 2009. As LEED-ND has not completed the development process, this EIR section will not use the rating system to evaluate the Specific Plan.

e. **City of Benicia Lower Arsenal Mixed Use Specific Plan Policies.** This section summarizes the Lower Arsenal Mixed Use Specific Plan policies and standards that specifically apply to global climate change, energy use, and sustainability within the Specific Plan area. Theses policies are summarized as follows:

- *Goal 1.* Restore the Lower Arsenal Mixed-Use Specific Plan area into a unified historic district through major restoration and rehabilitation of existing historic buildings, landscaping, open spaces, and the careful placement and integration of new structures.
  - *Action 1.1.8.* Establish a green building program and provide incentives to encourage construction of more environmentally-friendly buildings. Such incentives could include more flexible development standards, density bonuses, grants, permit expediting, and fee waivers.
  - *Action 1.3.1.* Develop Adams Street as a one-sided street that is industrial in character and that can continue to support a mix of industrial, artist live/work and work/live, commercial, and compatible uses to effectively showcase the area's signature historic buildings.
  - *Action 1.4.2.* Promote a mixed-use environment that continues the diverse combination of office, retail, light industrial, live/work and work/live, artisan, and residential uses in the Grant Street area.
  - *Action 1.6.2.* Maintain specimen trees, mature trees and ornamental landscaping, including lawn, shrubs, street trees, large oak and eucalyptus, and other appropriate plantings that surround key historic structures and act as canopies or boundary edges to historic landscapes.
  - *Action 1.6.3.* Permit removal of large trees only if a property is unduly constrained from development by their retention, and they are replaced at a higher ratio elsewhere on site.
  - *Action 1.6.4.* Establish a formal program to recognize the heritage trees. Develop special permit requirements for removal or alteration. Establish a green building program and provide incentives to encourage construction of more environmentally-friendly buildings. Such incentives could include more flexible development standards, density bonuses, grants, permit expediting, and fee waivers.
- *Goal 3.* Establish an integrated system of scenic trails, paths, and circulation routes to connect key destinations within the Arsenal Historic District and throughout the City.
  - *Policy 3.1.* Integrate multi-modal transportation planning with renovation of the Arsenal and pursue appropriate funding.
    - *Action 3.1.1.* Provide fully-connected and interesting streets, pedestrian paths, and bicycle paths to all key destination points in the Plan Area.
    - *Action 3.1.2.* Make pedestrian and bicycle circulation and safety improvements a high priority for transportation funding, utilizing locally generated revenues and State and Federal grants.
    - *Action 3.1.4.* If possible, require connections to the existing and proposed Bay Trail.
    - *Action 3.1.5.* Establish improved bus service to the Arsenal Historic District to and from Downtown. Consider more frequent all-day and special event shuttles between downtown and the Arsenal.
    - *Action 3.1.6.* If possible, require negotiation of public access easements on pedestrian stairways that are integral to pathways between historic sites and activity centers.
    - *Action 3.1.10.* Accommodate bicycle lanes in both directions on Military East Street by narrowing travel lanes and reducing on-street parking to one side of the street. Locate street trees outside of the planned right-of-way to accommodate bicycle lanes.
  - *Policy 3.2.* Protect Jefferson Street as the frontage road for the historic Officer's Row and develop and maintain as a key circulation route to the Jefferson Ridge / Officer's Row historic area.

- *Action 3.2.2.* Consider sidewalk easements on both sides of the street.
- *Action 3.2.3.* Continue the pedestrian sidewalk on the north side of Jefferson Street where missing and secure public access easements over private street segments.
- *Action 3.2.4.* Maintain the current linear alignment of the sidewalk and trees on Jefferson Ridge and provide a planting strip between the curb and sidewalk.
- *Action 3.2.5.* Consider a pedestrian/bicycle path along Jefferson Street, connecting the Officer's Duplex and Lieutenant's Quarters with the Commandant's Residence and Clocktower Building.
- *Action 3.2.6.* Define Cork Oak Ridge Park by a new east-west pedestrian path designed to terminate in the Officer's duplex to the west.
- *Action 3.2.10.* Design Park Road with the Bay Trail and with travel lanes to accommodate truck and bicycle lanes in both directions to facilitate its development as a primary access route.

o *Policy 3.4.* Develop Grant Street as an intimate, pedestrian-friendly environment between the planned roundabout at the west entry and its connection to Adams Street on the east side.

- *Goal 6.* Ensure that public services keep pace with new development and that development pays its fair share of the cost of infrastructure.

  o *Policy 6.2.* Work to safeguard public health, safety and prosperity by providing and maintaining facilities that enable the community to live in harmony with sustainable practices and natural systems.

  - *Action 6.2.1.* Provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping, and recycling, with exception for plant and ornamental species that are perpetuated for historical purposes.
  - *Action 6.2.2.* Approve new development only when a dependable, safe and adequate water supply can be assured by the City.
  - *Action 6.2.3.* Ensure the availability of adequate wastewater treatment capacity prior to the approval of new development.
  - *Action 6.2.4.* Regulate drainage from new development so that post-development site peak flow rates are no greater than pre-development levels.
  - *Action 6.2.6.* Promote the use of recycling programs for residential, commercial and industrial development in order to meet the mandated objectives set forth in the California Integrated Waste Management Act.

3. Impacts and Mitigation Measures

This section evaluates significant impacts to global climate change that could result from implementation of the Draft Specific Plan. Mitigation measures are identified as appropriate. Impacts to energy use and sustainability are discussed inasmuch as they relate to global climate change.

a. Significance Criteria. The recommended approach for GHG analysis included in a June 2008 OPR Technical Advisory is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below a level of significance.[29] Neither the CEQA statute nor *CEQA Guidelines* prescribes thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the lead agency.

[29] California, State of, 2008. Governor's Office of Planning and Research. *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*. June 19.

The April 2009 OPR guidance provides some additional direction regarding planning documents as follows: "CEQA can be a more effective tool for greenhouse gas emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce greenhouse gas emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation.... For local government lead agencies, adoption of general plan policies and certification of general plan EIRs that analyze broad jurisdiction-wide impacts of greenhouse gas emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews."

Pursuant to SB 97, OPR is in the process of developing guidelines for analysis of the effects of greenhouse gas emissions. As part of this process, OPR has asked ARB technical staff to recommend Statewide interim thresholds of significance for greenhouse gases. ARB released a preliminary draft staff proposal in October 2008 that includes initial suggestions for significance criteria related to industrial, commercial, and residential projects. The ARB anticipates adopting the proposal in 2009 to allow coordination with OPR's efforts on global climate change.

Proposed *CEQA Guideline* amendments released by OPR included the following direction regarding the determination of significant impacts from GHG emissions (Section 15064.4):

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

> (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or
>
> (2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:

> (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
>
> (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
>
> (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

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

Some policy makers and regulators suggest that a zero emissions threshold would be appropriate when evaluating GHGs and their potential effect on climate change. Such a rule appears inconsistent with the State's approach to mitigation of climate change impacts. AB 32 does not prohibit all new GHG emissions, rather, it requires a reduction in State-wide emissions to a given level. Thus, AB 32 recognizes that GHG emissions will continue to occur, and that increases will result from certain activities, but reductions would be required elsewhere.

Individual projects, such as those that would be developed as part of Specific Plan buildout, incrementally contribute to the potential for global climate change on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect global climate change, each of these projects incrementally contributes to the potential for global climate change on a cumulative basis, in concert with all other past, present, and probable future projects.

As the majority of GHG emissions result from fossil fuel combustion, a project's impacts on global climate change and energy use are interrelated. In order to assure that energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy. The environmental impacts of a project's energy use should take into account energy requirements and its energy use efficiencies, the effects of the project on local and regional energy supplies, the degree to which the project complies with existing energy standards, and the effects of the project on energy resources.

The Specific Plan would result in significant global climate change or energy-related impacts if it would:

- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases;
- Fail to contribute to increased energy efficiency; or
- Significantly increase the consumption of fuels or other energy resources to the extent that energy generation capacity is exceeded.

b. Impact Analysis. The following section provides an evaluation and analysis for the potential impacts of buildout of the Specific Plan for each of the criteria of significance listed above.

(1) Greenhouse Gas Emissions. Emissions estimates for the Specific Plan are discussed below. GHG emissions estimates are provided herein for informational purposes only, as there is not yet an established quantified GHG emissions threshold. Bearing in mind that CEQA does not require "perfection" but instead "adequacy, completeness, and a good faith effort at full disclosure," the analysis below is based on methodologies and information available to the City at the time this EIR

was prepared. Estimation of GHG emissions in the future does not account for all changes in technology that may reduce such emissions; therefore, the estimates are based on past performance and represent a scenario that is believed to be worse than that which is likely to be encountered (after energy-efficient technologies have been implemented).

While information is presented below to assist the public and the City's decision makers in understanding the Draft Specific Plan's potential contribution to global climate change impacts, the information available to the City about specific development projects that would occur in the Plan Area is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts, nor between any particular proposed mitigation measure and any resulting reduction in climate change impacts. For instance, there are numerous policies in the Draft Specific Plan that could reduce the energy consumption and associated GHG emissions of specific development projects. However, reductions in GHG emissions associated with these policies cannot be accurately identified in this program-level analysis without project-specific details. Specific development projects would be reviewed by City staff for compliance with these and other Specific Plan policies. At that time, the expected GHG emissions for individual projects could be quantified.

GHG emissions associated with Specific Plan buildout would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with Specific Plan-related vehicular trips and stationary source emissions, such as natural gas used for heating, and electricity used for cooling, lighting, and operation of equipment/appliances. Recognizing that the field of global climate change analysis is rapidly evolving, the approaches advocated most recently indicate that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the Plan Area, if and when specific development projects are proposed.

GHG emissions generated by Specific Plan-related development would predominantly consist of CO_2. In comparison to criteria air pollutants, such as ozone and PM_{10}, CO_2 emissions persist in the atmosphere for a substantially longer period of time. While emissions of other GHGs, such as CH_4, are important with respect to global climate change, emission levels of other GHGs are less dependent on the land use and circulation patterns associated with anticipated land use development projects that would result from Specific Plan implementation than are levels of CO_2.

Construction Activities. Construction activities associated with specific development projects in the Plan Area, such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew, would produce combustion emissions from various sources. During construction of specific development projects, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Buildout of the Specific Plan is anticipated to commence in 2010 and be completed by 2030. Precise construction timelines are not known, and emission estimates are based on the assumption that 1/20th of the total proposed Specific Plan development occurs in each year. Using the URBEMIS 2007

model, it is estimated that the total Specific Plan construction emissions would amount to approximately 152 metric tons of CO_2 per year.

Specific development projects undertaken in the Specific Plan area would be required to implement the construction exhaust control measures listed in Mitigation Measure AIR-1 of Section IV.C Air Quality. This measure would reduce GHG emissions during the construction period.

Motor Vehicle Use. Transportation associated with the Specific Plan would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips. Mobile sources (vehicle trips and associated miles traveled) would be the largest emission source of GHGs associated with the proposed Specific Plan. Transportation is also the largest source of GHG emissions in California and represents approximately 38 percent of annual CO_2 emissions generated in the State. For land use development projects, vehicle miles traveled (VMT) and vehicle trips are the most direct indicators of GHG emissions associated with the Specific Plan. CO_2 and CH_4 emissions were estimated using trip generation data; estimates of N_2O were based on EPA emission factors. These emission estimates are shown in Table IV.N-2.

Energy Use. Buildings represent 39 percent of U.S. primary energy use and 70 percent of electricity consumption.[30] Development under the Specific Plan would increase the demand for electricity and natural gas due to the increased square footage of commercial development and additional dwelling units. Natural gas use results in the emissions of two GHGs: CH_4 (the major component of natural gas) and CO_2 from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy intensive. Preliminary estimates indicate that the total energy used to pump and treat this water exceeds 6.5 percent of the total electricity used in the State per year.[31] Water-related energy use consumes 19 percent of California's electricity every year.[32] Energy use and related GHG emissions are based on water supply and conveyance, water treatment, water distribution, and wastewater treatment. Water use estimates were generated based on usage factors from the Pacific Institute (a nonpartisan research institute that conducts interdisciplinary research that advance environmental protection, economic development, and social equity) and population, employment and square footage data related to development of the Specific Plan.[33] Greenhouse gas emissions related to electricity consumption were calculated based on data provided by the Energy Information Administration.

Solid Waste Disposal. Solid waste generated by Specific Plan buildout could contribute to GHG emissions in a variety of ways. Average waste generation rates from a variety of sources are available from the California Integrated Waste Management Board.[34] Landfilling and other methods of disposal use energy for transporting and managing the waste and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of

[30] United States Department of Energy, 2003. *Buildings Energy Data Book.*

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

[32] California, State of, 2005. California Energy Commission. California's Water-Energy Relationship. November.

[33] Assumes wastewater flow is approximately 95 percent of water demand.

[34] California Integrated Waste Management Board, 2009. *Estimated Solid Waste Generation Rates.* Website: http://www.ciwmb.ca.gov/wastechar/wastegenrates/.

CH_4 from the anaerobic decomposition of organic materials. CH_4 is 25 times more potent a GHG than CO_2. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere. To determine the net GHG emissions from landfilling, the CO_2eq emissions from CH_4 generation, carbon storage (treated as negative emissions), and transportation CO_2 emissions were considered.

Other GHG Sources. At present, there is a federal ban on CFCs; therefore, it is assumed the Specific Plan-related development would not generate emissions of CFCs. Specific development projects that would result from Specific Plan buildout may emit a small amount of HFC emissions from leakage and service of refrigeration and air conditioning equipment and from disposal at the end of the life of the equipment. However, the details regarding refrigerants to be used within the Plan Area are unknown at this time. PFCs and sulfur hexafluoride are typically used in industrial applications, none of which is anticipated to be used within the Plan Area. Therefore, it is not anticipated that the Specific Plan would contribute significant emissions of these additional GHGs.

The Specific Plan would generate approximately 10,300 metric tons of CO_2eq emissions per year from commercial and residential uses, as shown in Table IV.N-2. Motor vehicle emissions are the largest source of GHG emissions at approximately 67 percent of the total Specific Plan emissions. Energy use, including electricity and natural gas, are the next largest category at a combined 23 percent of CO_2eq emissions. Solid waste generation and disposal is the remaining source of GHG emissions and comprises 10 percent of the total. These estimates do not include emission reductions that would occur from future emission reduction measures, such as alternative energy production or improved building requirements.

Table IV.N-2: Specific Plan Greenhouse Gas Emissions

	Emissions (Metric Tons Per Year)					
Emission Source	**CO_2**	**CH_4**	**N_2O**	**CO_2eq**	**Percent of Specific Plan Total**	**Percent of Community-Wide Emissions By Source**
Vehicles	6,700	0.190	0.690	6,910	67	4.36
Electricity Production	1,600	0.018	0.010	1,600	16	NA
Natural Gas Combustion	760	0.015	0.014	760	7	NA
Solid Waste	--	--	--	1,000	10	4.55
Total Annual Emissions	9,100	0.220	0.710	10,270	100	0.24

Note: Numbers in table may not appear to add up correctly due to rounding.
NA: Estimates not available for this pollutant and/or category.
Source: LSA Associates, Inc., July 2009.

(2) **Comparison with Goals of Global Climate Change Plans.** The California Environmental Protection Agency Climate Action Team (CAT) and the ARB have developed several reports to achieve the Governor's GHG targets that rely on voluntary actions of California businesses, local government and community groups, and State incentive and regulatory programs. These include the CAT's 2006 "*Report to Governor Schwarzenegger and the Legislature*," ARB's 2007 "*Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California*," and ARB's "*Climate Change Proposed Scoping Plan: a Framework for Change.*" The reports identify strategies to reduce California's emissions to the levels proposed in Executive Order S-3-05 and AB 32. Table

IV.N-3 summarizes those strategies that may be applicable to the Specific Plan and assesses how the Specific Plan complies with those strategies.

Based on the analysis in Table IV.N-3, the Specific Plan would implement appropriate GHG reduction strategies and would not hinder or impede implementation of reduction goals identified in AB 32, the Governor's Executive Order S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor.

(3) **Energy Efficiency/Reduce Greenhouse Gas Emissions.** The California Energy Commission (CEC) was created by the Legislature in 1974 and is the State's primary energy policy and planning agency. The CEC has the following responsibilities:

- Forecast future energy needs and keeping historical energy data;
- License thermal power plants 50 megawatts or larger;
- Promote energy efficiency by setting the State's appliance and building efficiency standards and working with local government to enforce those standards;
- Support public interest energy research that advances energy science and technology through research, development, and demonstration programs;
- Support renewable energy by providing market support to existing, new, and emerging renewable technologies; providing incentives for small wind and fuel cell electricity systems; and providing incentives for solar electricity systems in new home construction;
- Implement the State's Alternative and Renewable Fuel and Vehicle Technology Program; and
- Plan for and direct State response to energy emergencies.

Energy-efficiency measures for both electricity and natural gas can significantly reduce greenhouse gas emissions. Energy Efficiency Standards (otherwise known as "Title 24 Standards") for residential and nonresidential buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. California's building efficiency standards (along with those for energy efficient appliances) have saved more than $56 billion in electricity and natural gas costs since 1978. The standards are updated to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent update occurred when CEC adopted the 2008 Building Energy Efficiency Standards on April 23, 2008, and the Building Standards Commission approved them for publication on September 11, 2008. The new standards will take effect on January 1, 2010.

Table IV.N-3: Specific Plan Compliance with Greenhouse Gas Emission Reduction Strategies

Strategy	Specific Plan Compliance
Energy Efficiency Measures	
Energy Efficiency 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). **Renewables Portfolio Standard** Achieve a 33 percent renewable energy mix statewide. **Green Building Strategy** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Compliant.** Projects undertaken as part of Specific Plan buildout would be required to comply with the updated Title 24 standards for building construction. In addition, Action 1.1.8 would establish a green building program in the Plan Area. This program would encourage the construction of energy-efficient buildings that exceed Title 24 standards.
Water Conservation and Efficiency Measures	
Water Use Efficiency Continue efficiency programs and use cleaner energy sources to move and treat water. 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 GHG emissions.	**Compliant.** The Specific Plan includes Action 6.2.1, which would provide for the efficient use of water.
Solid Waste Reduction Measures	
Increase Waste Diversion, Composting, and Commercial Recycling, and Move Toward Zero-Waste Increase waste diversion from landfills beyond the 50 percent mandate to provide for additional recovery of recyclable materials. Composting and commercial recycling could have substantial GHG reduction benefits. In the long term, zero-waste policies that would require manufacturers to design products to be fully recyclable may be necessary.	**Compliant.** Preliminary data available from the California Integrated Waste Management Board (CIWMB) indicates that the City of Benicia has met the 50 percent diversion rate since 1999. The most recent year of available data (2006) indicates that the City has achieved a 61 percent diversion rate.
Transportation and Motor Vehicle Measures	
Vehicle Climate Change Standards. AB 1493 (Pavley) required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004. **Light-Duty Vehicle Efficiency Measures.** Implement additional measures that could reduce light-duty GHG emissions. For example, measures to ensure that tires are properly inflated can both reduce GHG emissions and improve fuel efficiency. **Adopt Heavy- and Medium-Duty Fuel and Engine Efficiency Measures.** Regulations to require retrofits to improve the fuel efficiency of heavy-duty trucks that could include devices that reduce aerodynamic drag and rolling resistance. This measure could also include hybridization of and increased	**Compliant.** The Specific Plan does not involve the manufacture, sale, or purchase of vehicles. However, vehicles that operate within and access the Plan Area would comply with any vehicle and fuel standards that the ARB adopts.

Table IV.N-3 *Continued*

Strategy	Specific Plan Compliance
engine efficiency of vehicles. **Low Carbon Fuel Standard.** ARB identified this measure as a Discrete Early Action Measure. This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.	
Regional Transportation-Related Greenhouse Gas Targets. Develop regional greenhouse gas emissions reduction targets for passenger vehicles. Local governments will play a significant role in the regional planning process to reach passenger vehicle greenhouse gas emissions reduction targets. Local governments have the ability to directly influence both the siting and design of new residential and commercial developments in a way that reduces greenhouse gases associated with vehicle travel.	**Compliant.** Specific regional targets for transportation emissions apply to regional transportation plans developed by Metropolitan Planning Organizations, such as the Metropolitan Transportation Commission. Therefore, these targets do not directly apply to the Specific Plan. However, the Specific Plan is intended to promote higher density infill development and enhance and improve the pedestrian environment, reducing reliance on automobile travel.
Other	
Measures to Reduce High Global Warming Potential (GWP) Gases. ARB has identified Discrete Early Action measures to reduce GHG emissions from the refrigerants used in car air conditioners, semiconductor manufacturing, and consumer products. ARB has also identified potential reduction opportunities for future commercial and industrial refrigeration, changing the refrigerants used in auto air conditioning systems, and ensuring that existing car air conditioning systems do not leak.	**Compliant.** New products used, sold, or serviced in the Plan Area (after implementation of the reduction of GWP gases) would be required to comply with future ARB rules and regulations.

Source: LSA Associates, Inc., 2009.

CEC estimates that about 12 percent of California's retail electric load is currently met with renewable resources, including wind, solar, geothermal, and small hydroelectric resources. California's current Renewables Portfolio Standard (RPS) is intended to increase that share to 20 percent by 2010. Increased use of renewable resources will reduce California's reliance on fossil fuels and reduce emissions of greenhouse gases associated with electricity use. The AB 32 Scoping Plan developed by ARB anticipates that California will have 33 percent of its electricity provided by renewable resources by 2020.

Existing facilities and buildings within the Plan Area were constructed to meet Building Standards at the time of construction. Any future modifications, updates to existing buildings, or new construction will be required to meet the new standards, and therefore, will be more energy efficient. As discussed above, energy use at these facilities will also utilize electricity generated from a higher percentage of renewable resources, resulting in lower levels of GHG emissions. Therefore, development undertaken as part of the Specific Plan would achieve increased energy efficiency from existing facilities and would result in a less-than-significant impact to energy efficiency standards and the objective of reducing GHG emissions.

(4) **Consumption of Energy Resources.** Pacific Gas & Electric (PG&E) currently provides gas and electric services to residences and commercial development within the City of Benicia. PG&E provides natural gas and electric service to approximately 15 million people throughout a 70,000-square-mile service area in northern and central California. PG&E and other utilities in the State are regulated by the California Public Utilities Commission (CPUC).

The Specific Plan provides for development of a maximum of an additional 320,412 square feet of commercial and industrial development (including intensified uses in existing structures) and 22 new residences. Implementation of the Specific Plan would result in increased consumption of electricity and natural gas. Based upon consumption factors from the Energy Information Administration of the U.S. Department of Energy, the Specific Plan would require an additional 5,900 megawatt hours of electricity and 14 million standard cubic feet of natural gas per year over existing conditions, assuming no implementation of energy conservation measures.

The Specific Plan Area is currently serviced by electricity and natural gas. New and redeveloped mixed uses within the Plan Area are anticipated in the City's General Plan, as well as by the utility providers who coordinate future service demands with the City. As such, new and redeveloped uses that would occur with implementation of the Specific Plan are anticipated and, as a result, the additional energy demand discussed above would not exceed the available capacity. Therefore, the Specific Plan would have a less-than-significant impact on energy consumption, even without the implementation of energy conservation measures.

(5) **Consistency with Sustainability and Energy Conservation Concepts.** Table IV.N-4 includes a summarized evaluation of the Specific Plan's consistency with selected sustainability principles. The bulk of these principles derive from the policy positions outlined in the APA Policy Guide on Planning for Sustainability; however, the matrix also draws on the concepts of the Benicia General Plan, State General Plan Guidelines, local/regional planning documents, and other sources (including specific themes expressed in the City of Davis General Plan).

The purpose of the sustainability analysis is not to identify additional environmental impacts of the Specific Plan, but to provide a more complete understanding of the Specific Plan's environmental implications as they relate to long-term resource use. This section thus focuses on the physical aspects of sustainability and energy use as identified by the State of California, various cities, and planning organizations, and does not directly address equitable development and community justice (as issues that are distinct from general environmental protection). This analysis is not an exhaustive survey of the Specific Plan's effects on sustainability, but a way of understanding the Specific Plan's impacts from a multi-resource perspective. Recommendations are provided for ways to enhance the Specific Plan's sustainability.

The Specific Plan would result in a land use pattern and circulation system that would promote alternative transportation, including walking and bicycling. The viability of alternative transportation is one of the foundations of sustainability in that it has the potential to substantially reduce the use of non-renewable energy sources, as well as increase community health and social benefits. The use of alternative transportation would be supported by a land use pattern of moderately dense mixed-use development, with identifiable neighborhoods, interesting historic buildings, and safe pedestrian paths. The Specific Plan would encourage the development of multiple kinds of housing, ranging from live/work units for artists, to apartments over ground-floor retail spaces, to townhomes and

Table IV.N-4: Sustainability and Energy Conservation Matrix

Sustainability Principle	Discussion/Recommendation to Enhance Sustainability
Encourage the use of **alternative transportation.**	The Specific Plan would be consistent with this sustainability principle. Although the Plan Area is already an eminently walkable area (with interesting buildings, outdoor spaces, mixed uses, and scenic views), pedestrian circulation in the area is diminished by the lack of sidewalks on certain streets, a shortage of pedestrian pathways that connect the upper part of the site to the lower part of the site, and a complicated street system with inadequate signage. No bike paths or lanes are located in the Plan Area, and Benicia Breeze does not serve the Lower Arsenal. The use of alternative transportation modes in the Plan Area would be substantially enhanced by the Specific Plan through: 1) completion of missing sidewalk segments along Grant Street, Adams Street, Park Road, and Polk Street; 2) the development of new off-street paths through the Jefferson Ridge open space from Adams Street south to Grant Street, and from Grant Street to Polk Street; 3) the improvement of existing stairs throughout the Plan Area; 4) the development of 5-foot bike lanes on Park Road and Military East; 5) the development of new north/south and east/west streets that would break up larger blocks and encourage pedestrian/bike access; 6) support of new bike routes to connect the Plan Area to Downtown Benicia and extend the Bay Trail south of the Plan Area; and 7) support of improved transit connections between the Plan Area and Downtown. However, it should be noted that the development of new pedestrian and bike paths in the Plan Area may require the acquisition of easements or property; new circulation facilities would also be required to comply with Americans with Disabilities Act (ADA) requirements. In addition, the Plan requires that parking be provided within a district-wide solution, which would further encourage visitors to the Plan Area to park once, and then walk to multiple destinations – further reducing automobile reliance. The Specific Plan scores very well on this sustainability principle; no further recommendations are needed.
Encourage the use of **alternative energy sources and energy conservation.**	The Specific Plan would be consistent with this sustainability principle. Energy use for transportation accounts for approximately 28 percent of total energy use in the United States, according to the US Energy Information Administration. Therefore, the Specific Plan, which would promote the use of alternative transportation (including bike/pedestrian access and transit), would promote energy conservation. In addition, rehabilitating existing buildings is far more energy efficient than constructing new ones – even "green buildings" (which still require the extraction, processing, and assembly of raw materials). Action 4.8.1 of the Specific Plan, which would provide financial incentives for the adaptive re-use of buildings, would also reduce energy usage. Action 1.1.8 would establish a green building program in the Plan Area, to encourage construction of environmentally-friendly buildings (which would also be energy-efficient). This action would also likely conserve energy in the long-term. However, the Specific Plan would not directly promote the use of alternative energy sources. The following recommended Action would encourage use of alternative energy: **Recommended Action 6.2.11: Use subsidies, expedited permit processing, density bonuses or other incentives to support the installation and use of photovoltaic cells and other renewable energy technologies to provide a portion of the Plan Area's energy needs.**

Table IV.N-4 *Continued*

Sustainability Principle	Discussion/Recommendation to Enhance Sustainability
Encourage development and land uses that minimize the use of extracted underground minerals and synthetic chemicals.	The Specific Plan would be generally consistent with this sustainability principle. As noted in the energy conservation discussion, above, the rehabilitation of existing buildings (which would be promoted by numerous goals, policies, and actions in the Specific Plan) would save energy by re-using and recycling building materials. Re-using and recycling building materials would also reduce the demand for mined materials, including aggregate (used to make concrete) and metals. The promotion of alternative transportation would also reduce demand for gasoline, which is derived from extracted underground minerals. Therefore, the Specific Plan would meet this sustainability principle. However, no goals, policies, or actions directly pertain to using organic methods to maintain open space within the Plan Area. In the absence of such policies, fertilizers, pesticides, and herbicides may be applied within the Plan Area. Many fertilizers are made with petroleum inputs; pesticides and herbicides all rely on synthetic chemicals. The following recommended Action would reduce the use of mined and synthetic materials in landscaped areas: **Recommended Action 6.2.12: Develop and implement a beyond-organic landscape maintenance plan for the Plan Area. The landscape maintenance plan shall include the following components:** • **An Integrated Pest Management Plan (IPM), which will include methods of pest prevention that specify the use of pesticides only as a last resort in pest control.** • **The promotion of landscape plant species that are naturally resistant to drought and pests.**
Support the reclamation of brownfield sites.	The Specific Plan would be consistent with this sustainability principle. Although portions of the Plan Area have been subject to relatively minor levels of soil and groundwater contamination associated with historic land uses, none of the sites in the Plan Area are officially characterized as "brownfields" (a term referring to areas with high levels of contamination that would require significant remediation). Although some site-specific asbestos and lead remediation may be required when individual sites in the Plan Area are redeveloped, no large-scale remediation plans would be required (all remediation would be covered by existing federal, State, and local hazardous materials regulations). However, the Specific Plan would result in new development on infill parcels, which – like the reclamation of brownfields – could reduce development pressures on greenfield sites. The minor remediation that would occur in the Plan Area would improve environmental quality in the area and enable the development of dense, mixed-use neighborhoods.

Table IV.N-4 *Continued*

Sustainability Principle	Discussion/Recommendation to Enhance Sustainability
Conserve undeveloped land and reduce disruptions to natural ecosystems.	The Specific Plan would be generally consistent with this sustainability principle. Important areas of open space in the Plan Area – most notably the sloping hillside with the heritage cork oaks south of Jefferson Street, and Officers' Square – would be preserved as part of the Specific Plan. In general, the Specific Plan is protective of existing biological resources: important groves of trees (and individual trees) would be preserved and grading would be minimized through the preservation of large areas of steep slopes and the construction of relatively small-footprint buildings. The site contains approximately 0.18 acres of seasonal wetlands, which are likely associated with remnant drainages or historic cut/fill operations. Some of these wetlands could be affected by construction in the Jefferson Ridge/Officers' Row Zone. Although these wetlands are not expected to be suitable for use by protected amphibians like California red-legged frog, they are likely used by a variety of local wildlife. The Specific Plan designates four "Potential Stormwater Quality Areas," three of which would be located on Jefferson Ridge. Although the location of these storm water treatment areas on Jefferson Ridge does not exactly coincide with the location of the existing seasonal wetlands, the wetlands could be preserved and incorporated into the storm water quality areas. The preservation of the wetlands would avoid disruption to natural ecosystems. The costs for protection and maintenance of these wetlands should be provided by individual development projects. The following recommended action would preserve the existing wetlands: **Recommended Action 6.2.13: Incorporate the existing seasonal wetlands in the Plan Area into an area-wide storm water management plan. Consider enhancing the ecological function of the remnant wetlands through removal of exotic plant species and replacement of removed plants with natives.**
Encourage development and land uses that reduce the use of water and employ innovative wastewater management.	The Specific Plan would be consistent with this sustainability principle. The land uses that would be encouraged by the Specific Plan – a moderately-dense mix of residential, retail, and industrial uses – are inherently water-efficient. The urban neighborhoods envisioned around Adams Street, Grant Street, and south of Grant Street do not include large areas of turf or other landscaping that requires large amounts of irrigation. Open space throughout the Plan Area would be largely provided by public parks and squares that would be shared by the occupants of the Plan Area. In general, these open spaces would be landscaped with species that are generally tolerant of Benicia's Mediterranean climate, such as coastal live oak (*Quercus agrifolia*), California cottonwood (*Populus fremontii*), and fruitless olive (*Olea*). Therefore, the Specific Plan would support the principle of reducing water use. The Plan Area and surrounding areas could employ innovative wastewater management: they are located near an existing wastewater treatment plant, which itself is located near the Carquinez Strait shoreline. Wastewater could be routed to a series of restored wetlands, where it could be naturally treated by wetland vegetation and then released, similar to the ecological wastewater treatment program employed by Arcata, California (see the Arcata Marsh and Wildlife Sanctuary website: http://www.humboldt.edu/~ere_dept/marsh/). However, such a program is a complex, expensive, and land-intensive undertaking, and would likely need to be undertaken on a City-wide basis. In addition, the use of wetlands for wastewater treatment in Benicia is not legally authorized. Therefore, no recommendation is made for Plan-wide innovative wastewater management to be implemented, although small-scale gray water programs should be encouraged. **Recommended Action 6.2.14: Encourage the incorporation of low-cost gray water reuse features in residential, commercial, and industrial development. Appropriate features could include dual waste collection plumbing (to use sink water to flush the toilet), outdoor gray water irrigation systems, and rainfall catch basins/cisterns. Localized gray water recycling could be encouraged via building/development incentives, providing free technical assistance, or revising the local building code.**

Table IV.N-4 *Continued*

Sustainability Principle	Discussion/Recommendation to Enhance Sustainability
Promote the production and consumption of local food.	The Specific Plan does not address this sustainability principle. While eating locally has become somewhat of a buzzword recently, it is an important component of sustainability. Consuming food grown locally has several environmental benefits, including: keeping local farms economically viable, which preserves rural landscapes; and substantially reducing energy costs associated with food transport. In addition, local farms can often be held more accountable for their negative externalities (because the environmental impacts of fertilizer, herbicide, and pesticide use are experienced locally by those purchasing food). Many aspects of local food production and consumption are beyond the reach of the Specific Plan. These aspects include consumer preference, the ongoing conversion of agricultural land in Solano County, and the global economics of food production. However, there are actions that could be incorporated into the Specific Plan to support local food: **Recommended Action 6.2.15: Undertake the following actions to promote the production and consumption of local food:** • **Residential developments should allocate space for gardening by residents. This measure could be achieved by allocating a portion of existing open space in the Plan Area to community fruit/vegetable gardens, as long as the design integrity of historic spaces is maintained.** • **When feasible (e.g., when the population of the Lower Arsenal reaches critical mass), consider bringing a weekly farmer's market to the Plan Area.**
Encourage businesses and development that pursue re-use of waste products.	The Specific Plan would be generally consistent with this sustainability principle. The Specific Plan is generally consistent with this principle, namely because it strongly promotes the rehabilitation of existing buildings. Demolition and construction are wasteful enterprises, from both a materials and energy point of view. The re-use of old buildings is an important way to reuse existing materials. In addition, the General Plan would encourage recycling through Action 6.1.6, would promote the use of recycling programs to meet State waste-reduction strategies. Allied Waste, Benicia's waste and recycling provider, provides yard waste recycling, but not recycling of food scraps. However, food waste may account for a relatively large proportion of waste generated by residents, restaurants, and other businesses in the Plan Area. Creating a local site for composting food waste would represent a relatively inexpensive, space-efficient way to reduce waste in the Plan Area. In addition, as indicated in **Recommended Action 6.2.12** (which includes a provision for recycling food waste), compost generated by the operation could be used to fertilize on-site open spaces.
Equitably protect public health, safety, and welfare.	The Specific Plan would be consistent with this sustainability principle. The Specific Plan would generally bring compatible and beneficial development to the Plan Area. Parks and open space would be located in all zones, and additional roadways and paths would be built throughout the area that would better connect the live-work lofts in the South of Grant Zone to the mansions on Jefferson Ridge. Key natural amenities in the Plan Area – such as the cork oaks on Jefferson Ridge – would be preserved and accessible to all residents and employees of the Plan Area and Benicia. The Specific Plan also includes special policies to attract and support artists, a group that is ill-accommodated by conventional, market-rate housing. Housing types permitted in the Plan Area would range from live/work units to apartments over retail units, to townhomes, and would expand the range of housing choices available in Benicia. The Specific Plan, which would generally protect environmental resources, promote sustainable development, and offer a wide range of housing opportunities, would equitably protect public health, safety, and welfare.

condominiums. A diverse range of housing types would increase habitation options for Benicia residents and should accommodate a broad range of income groups. The Specific Plan would support the following characteristics of sustainable planning outlined in the Benicia General Plan:

- *Urban areas that reflect a long-term economic horizon.* The Specific Plan would allow for economic change (through flexible building space and adaptable transportation patterns) while preserving key historic and biological resources.
- *Efficient land patterns that are not overly energy-intensive.* Proposed land use patterns emphasize mixed uses and support alternative transportation. The reuse of the Plan Area, where urban development has existed for approximately 150 years, is more efficient than the land use patterns that would occur under existing zoning.
- *Places with sufficient linkages to the local and regional economy to assure long-term job creation and economic vitality.* Development in the Plan Area would create an important and sustainable source of local jobs in close proximity to Downtown.
- *Support of ecologically-sensitive design features.* Heritage trees and key areas of open space would be preserved. Landscape-style storm water management features would be incorporated into the design of new development.
- *Placing value in the public realm.* Well-designed public spaces – including Officers' Square and numerous smaller parks, plazas, and streetscapes – are central components of the Specific Plan.

The recommendations detailed in Table IV.N-1 would enhance the sustainable aspects of the Specific Plan; however, the Specific Plan, in its current form, substantially realizes key sustainability precepts.

4. Impacts to the Proposed Specific Plan from Global Climate Change

Local temperatures could increase in time as a result of global climate change with or without the development envisioned under the Specific Plan. This increase in temperature could lead to other climate effects, including, but not limited to, increased flooding due to increased precipitation and runoff, and a reduction in the Sierra snowpack. At present, the extent of climate change impacts is uncertain, and more extensive monitoring of runoff and snowpack is necessary for an understanding of pending changes in hydrologic patterns. Studies indicate that increased temperatures could result in a greater portion of peak streamflows occurring earlier in the spring, with decreases in late spring and early summer.[35] These changes could have implications for water supply, flood management, and ecosystem health.

While sea level rise estimates vary, the analysis in Section IV.D, Hydrology and Water Quality, assumes a 1 meter rise in sea levels by 2100. Based on this assumption, and taking into account storm surge effects, the 100-year tide level would increase from 6.5 feet National Geodetic Vertical Datum (NGVD) to 9.8 feet NGVD. The Plan Area, which ranges in elevation from approximately 25 feet above mean sea level (amsl, which is roughly equivalent to NGVD) to 110 feet above mean sea level, would not be inundated under this scenario. The lowest point in the Plan Area would be still more than 30 feet clear of the 100-year tide level.

[35] United States Global Change Research Program, 2001. Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change.

BCDC has undertaken a Climate Change Planning project that includes goals to: (1) identify strategies for adapting to climate change; (2) develop a regional task force to inform and coordinate local governments, stakeholders, and land use planning bodies in the Bay area regarding approaches for adapting to global climate change; and (3) identify the findings and policies in the San Francisco Bay Plan pertaining to climate change and update other relevant Bay Plan policies to incorporate new information about the impacts of climate change. In October 2007, BCDC released a report describing a comprehensive eight-year Bay Area regional strategy for controlling greenhouses and planning for the impacts of sea level rise.

Most of California's precipitation falls in the northern part of the State during the winter. A vast network of man-made reservoirs and aqueducts capture and transport water throughout the State from northern California rivers, as the greatest demand for water comes from users in the southern part of the State during the spring and summer.[36] The current distribution system relies on Sierra Nevada mountain snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

Some models predict drier conditions and decreased water flows, while others predict wetter conditions in various parts of the world. If heat-trapping emissions continue unabated, more precipitation is likely to fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent over the next 100 years.

The City of Benicia's Urban Water Management Plan provides water demand projections based on growth anticipated by the City's General Plan. Demand associated with new and redeveloped uses within the Plan Area is not anticipated to exceed the City's available water supply. Action 6.2.2 of the Specific Plan would ensure that new development within the Plan Area would not be approved unless adequate water supply can be assured by the City.

The City of Benicia operates and manages its own water system, including a Water Treatment Plant located near Lake Herman Road. Untreated water from the City's supply sources is conveyed to the WTP. The City provides treated water to approximately 9,182 customers within the City for residential, commercial, industrial, and irrigation uses. The City's water supply comes primarily from contracts and agreements held through the State Water Project (Sacramento Delta) and the Solano Water Project (Lake Berryessa). Approximately 80 percent of the City's water comes from the Sacramento River Delta and approximately 20 percent comes from Lake Berryessa.

Where precipitation is projected to increase in California, the increase would mainly occur in Northern California. However, various California climate models provide mixed results regarding changes in total annual precipitation in the State through the end of this century; therefore, no conclusion on an increase or decrease can be made. Considerable uncertainties about the effects of climate change on California hydrology and water resources will remain until there is more consistent information about how precipitation patterns, timing, and intensity will change.[37] The plans and programs implemented by the City of Benicia, as well as the State Water Project, are intended to

[36] California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California.* July.

[37] California, State of. Department of Water Resources, 2006. *Progress on Incorporating Climate Change into Management of California's Water Resources.* July.

ensure that sufficient water supply will be available to all users within the region in future years. Therefore, the potential effects of climate change (e.g., sea level rise, water supply, etc.) due to potential Specific Plan-related development would be less than significant.

Public Works & Community Development Department
MEMORANDUM

Date: December 10, 2009
To: Historic Preservation Review Commission
From: Gina Eleccion, Management Analyst
Re: Professional Qualifications for Certified Local Government

As part of the Certified Local Government program, an annual report is submitted to the State Office of Historic Preservation. Included in this report is a requirement to document the "Professional Qualifications" of commissioners and staff.

A "Professional Qualifications" form is being given to each commissioner to complete. If a commissioner's profession falls within one of the recognized disciplines, additional information, including a resume, is required.

Staff is requesting that these forms be completed and returned no later than Tuesday, December 22, 2009.

Attachment:
- Professional Qualifications Form

Professional Qualifications

for

Certified Local Governments Commissioners and Staff

Local Government_____

Name_____
Commissioner ☐ Staff ☐

Date of Appointment: _____

Date Term Expires:_____

Certified Local Government procedures require local commissions to meet specific professional requirements. The commission shall include a minimum membership of five individuals with all members having demonstrated interest, competence, or knowledge in historic preservation. At least two Commission members are encouraged to be appointed from among professionals in the disciplines of history, architecture, architectural history, planning, pre-historic and historic archeology, folklore, cultural anthropology, curation, conservation, and landscape architecture or related disciplines, such as urban planning, American studies, American civilization, or cultural geography, to the extent that such professionals are available in the community. Commission membership may also include lay members who have demonstrated special interests, competence, experience, or knowledge in historic preservation.

Are you a professional in one of the disciplines associated with historic preservation?

_____No

_____Yes

If you are, summarize your qualifying education, professional experience, and any appropriate licenses or certificates. Attach a resume.