

REGIONAL TRANSIT ISSUE PAPER

Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
9	09/26/11	Open	Action	09/01/11

Subject: Approving a Resolution Adopting a Mitigated Negative Declaration for Modifications to the Blue Line to Cosumnes River College Light Rail Extension Project and an Addendum to the Mitigation Monitoring and Reporting Plan for the Project

ISSUE

Whether or not to Approve a Resolution Adopting a Mitigated Negative Declaration for Modifications to the Blue Line to Cosumnes River College Light Rail Extension Project and an Addendum to the Mitigation Monitoring and Reporting Plan for the Project.

RECOMMENDED ACTION

Adopt Resolution No. 11-09-____ Adopting a Mitigated Negative Declaration for Modifications to the Blue Line to Cosumnes River College Light Rail Extension Project and an Addendum to the Mitigation Monitoring and Reporting Plan for the Project.

FISCAL IMPACT

None as a result of this action.

DISCUSSION

The Blue Line to Cosumnes River College Light Rail Extension Project (Project), also known as the South Sacramento Corridor Phase 2 Light Rail Extension, will extend light rail service 4.3 miles south from the Blue Line terminus at Meadowview Road to Cosumnes River College. The Project was evaluated by the Federal Transit Administration (FTA) and RT in a Supplemental Final Environmental Impact Statement/Subsequent Final Environmental Impact Report (SFEIS/SFEIR) in 2008. The SFEIS/SFEIR was approved in December 2008 through the issuance of a Record of Decision by FTA and the filing of a Notice of Determination with the State of California by RT.

Since approval of the SFEIS/SFEIR in 2008, a number of needed modifications to the Project's design have been identified by RT. Because these modifications were not evaluated in the SFEIS/SFEIR, the proposed modifications require further environmental evaluation in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). A joint Initial Study/Environmental Assessment (IS/EA) has been prepared to analyze the potential impacts associated with the proposed modifications (Exhibit A). The Initial Study (IS) addresses CEQA requirements, while the Environmental Assessment addresses NEPA requirements.

RT, as the lead agency under CEQA, must determine whether the IS adequately satisfies the requirements under CEQA, whether any significant environmental effects would occur, what revisions to the project would avoid or mitigate such effects to a point where no significant effects

Approved:

Presented:

Final 9/20/11

General Manager/CEO

Director, Project Management

C:\Temp\BCL Technologies\NitroPDF6\@BCL@540B6E0D\@BCL@540B6E0D.doc

Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
9	09/26/11	Open	Action	09/01/11

Subject: Approving a Resolution Adopting a Mitigated Negative Declaration for Modifications to the Blue Line to Cosumnes River College Light Rail Extension Project and an Addendum to the Mitigation Monitoring and Reporting Plan for the Project

would occur, whether any mitigation measures should be adopted, and adopt a program to monitor any changes which it has required in the project. Upon making the required findings, RT may then adopt a Mitigated Negative Declaration.

The IS/EA assessed two alternatives: 1) the Phase 2 Extension Project Preferred Alternative as already assessed and approved; and 2) the Modified Phase 2 Extension Project Preferred Alternative, which contains a number of modifications to the original Phase 2 Preferred Alternative. Because the original Phase 2 Preferred Alternative has already been assessed in the SFEIS/SFEIR and approved by the RT Board, it is treated as the No Project Alternative. Accordingly, the IS/EA alternatives analyzed are:

Alternative 1 – No Project Alternative (Project as approved)

This alternative would construct the Project as already assessed in the 2008 SFEIS/SFEIR and approved by the Sacramento Regional Transit District Board without the proposed modifications, and would consist of the following relevant components:

1. The proposed light rail tracks would be constructed approximately 20 feet west of the Union Pacific Railroad (UPRR) mainline tracks, which would not comply with UPRR current requirements for track separation;
2. The PG&E natural gas pipeline would be installed along the entire length of Detroit Boulevard rather than within an existing utility corridor;
3. The light rail tracks would be constructed immediately adjacent to the Morrison Creek levee and would not comply with current requirements of the adopted City of Sacramento General Plan;
4. Traction power substation (TPSS) #10 would be constructed in its originally planned location within the proposed Franklin Station parking lot and optimum power distribution would not be realized; and
5. The tailtracks at the project’s southern terminus would not be extended 400 feet to the south and the provision for storage of additional light rail vehicles during non-commute hours would not be accommodated.

Alternative 2 – Modifications to the Phase 2 Extension Project

This alternative would incorporate a number of specific modifications to the Project as approved in 2008:

1. Realignment of approximately 4,700 feet of the northernmost portion of the Phase 2 extension adjacent to the UPRR tracks, in accordance with current UPRR requirements for track separation. There are three design options associated with Alternative 2 that address the realignment along the UPRR right-of-way. Three potential alignment options are under consideration for this modification:
 - Design Option A: Realignment of RT Tracks 33 Feet Westward, Minimum 53-Foot Track Separation. This design option would shift both of the RT tracks to the west to comply with UPRR’s current separation requirement. The proposed realignment would

Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
9	09/26/11	Open	Action	09/01/11

Subject: Approving a Resolution Adopting a Mitigated Negative Declaration for Modifications to the Blue Line to Cosumnes River College Light Rail Extension Project and an Addendum to the Mitigation Monitoring and Reporting Plan for the Project

- locate the RT tracks approximately 30 feet west of the SMUD power lines that follow the western portion of the UPRR corridor. This realignment would require the acquisition of additional property for right-of-way (ROW) to the west of the original alignment. In some cases, existing residences could be as little as 10 feet from the proposed LRT tracks.
- Design Option B: Realignment of RT Tracks 22 Feet Westward, Installation of Crash Wall, and Minimum 42-Foot Track Separation. This design option would entail the installation of the RT double tracks approximately 22 feet westwards from their original approved alignment, with both tracks on the west side of the SMUD power lines, and the installation of a railway industry-compliant crash wall between the UPRR mainline track and the RT tracks. This design option would also necessitate the relocation of an existing PG&E natural gas pipeline that lies beneath the proposed alignment.
 - Design Option C: No Crash Wall, No UPRR ROW Acquisition, and 90-Foot Track Separation. This design option would entail the installation of both of the RT tracks to the west of the UPRR ROW, at a distance of approximately 90 feet from the existing UPRR track center, and full acquisition of approximately 36 properties and residences to accommodate the RT alignment, with associated relocations.
2. Relocation of portions of the existing PG&E natural gas pipeline (applicable to Design Option B only) within an existing utility corridor between Detroit Boulevard and the UPRR right-of-way.
 3. Adjustments to the proposed Sacramento Regional Transit District ROW to increase distance from the Morrison Creek levee, as required by the adopted City of Sacramento General Plan;
 4. Relocation of TPSS #10 across Franklin Boulevard to provide for optimum power distribution along the Phase 2 extension; and
 5. Extension of the tailtracks at the project's southern terminus to provide for LRT vehicle storage during non-commute hours.

To initiate the environmental review process, RT conducted a public information meeting about the project on February 10, 2011 at Susan B. Anthony School on Detroit Boulevard. The purpose of the meeting was to inform the public of the proposed modifications and to solicit input on potential concerns and alternatives. Approximately 50 people attended the meeting.

RT also participated in a meeting of the Detroit Boulevard Neighborhood Association on April 13, 2011 at Susan B. Anthony School. Approximately 140 people attended the meeting and provided verbal comments. Input received during the course of this meeting has been included as appropriate in the IS/EA, specifically related to the relocation of the PG&E natural gas line to Detroit Boulevard.

The IS/EA was distributed on August 2, 2011 for public comment. The Notice of Availability (NOA) of the Draft IS/EA was sent to federal, state, regional, and local agencies, elected officials,

Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
9	09/26/11	Open	Action	09/01/11

Subject: Approving a Resolution Adopting a Mitigated Negative Declaration for Modifications to the Blue Line to Cosumnes River College Light Rail Extension Project and an Addendum to the Mitigation Monitoring and Reporting Plan for the Project

affected property owners and tenants and County Clerk. Certain public agencies also received copies of the IS/EA via the State Clearinghouse. In addition, approximately 15,000 notices announcing the availability of the Draft IS/EA were mailed to all property owners and tenants of record in the vicinity of the Project area and the NOA was published in newspapers of general circulation.

The NOA and/or IS/EA that was distributed did not include a Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration (MND) or a copy of the MND. These documents would typically have accompanied the Initial Study, but were inadvertently not included with the initial submittal. To ensure that RT fully met the requirements of CEQA, the NOI to adopt a MND and the MND were circulated for public review utilizing the same outreach approach used for the NOA and Draft IS/EA. The public comment period for the IS/EA and MND was extended accordingly, and ended on Thursday, September 22, 2011.

During the public comment period, a public meeting to address elements of the IS/EA and to receive public comments was held on August 15, 2011 at Susan B. Anthony Elementary School. Approximately 50 people attended the meeting and both written and verbal comments were received and incorporated into the IS/EA. Attendees were advised that they could provide additional written comments until August 31, 2011 and could also attend the August 22, 2011 RT Board of Directors meeting to provide additional verbal comments on the IS/EA. Members of the community that participated in this meeting received notification that the public comment period was extended to September 22, 2011.

The IS was prepared by RT in accordance with the California Environmental Quality Act in order to ascertain whether the proposed project may have a significant effect on the environment. On the basis of this study, it is determined that the proposed modifications will have:

No impact on agricultural resources, electromagnetic fields (EMF), geology and soils, hazardous wastes, hydrology, floodplains, and water quality, mineral and energy resources, public services and facilities, recreational facilities, safety and security, utilities, transportation, and Section 4(f) resources;

A less-than significant impact on climate change, land use, and environmental justice;

A less-than-significant impact with mitigation already prescribed in the previously adopted SFEIS/SFEIR on aesthetics and visual resources, air quality, biological resources, cultural resources, population, housing, and socio-economics.

However, the IS did identify two potentially significant impacts associated with proposed modifications.

1. Noise from the light rail wheel/rail interface.

Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
9	09/26/11	Open	Action	09/01/11

Subject: Approving a Resolution Adopting a Mitigated Negative Declaration for Modifications to the Blue Line to Cosumnes River College Light Rail Extension Project and an Addendum to the Mitigation Monitoring and Reporting Plan for the Project

2. Vibration in the vicinity of UPRR tracks when installing sheet piling.

In reviewing these impacts, staff identified mitigation measures that would reduce these potential impacts to less than significant.

For the noise impacts from the light rail wheel/rail interface, the following mitigation measures will be implemented:

1. Mitigation measures already prescribed in the previously adopted SFEIS/SFEIR.
2. Incorporation of the following alternative mitigation measure for potential noise impacts:
 - a. Where appropriate, in lieu of the recommended sound walls, Sacramento Regional Transit shall install rail dampers and implement a maintenance program of rail grinding to lessen noise emissions from the LRT wheel/rail interface. Components of the program shall include, but not necessarily be limited to, the following:
 1. Wheel truing: Regular inspection of wheels and truing of wheels that are out of specifications to ensure that rough wheels do not lead to increased noise levels;
 2. Rail grinding contract: A multi-year contract for rail grinding that includes annual grinding on an as-needed basis;
 3. Grinding specification: All rail grinding shall comply with a specification that includes limits on surface roughness;
 4. Verification measurements: Post-grinding measurements that verify that the rails meet the grinding specification. This step along with Step 3 shall be performed to provide RT with assurance that the grinding is performed correctly and to allow for competitive bidding;
 5. Permanent monitoring and prioritization program: The permanent monitoring program shall be designed to determine when noise levels start to increase on a section of track and to prioritize the annual grinding. Once a baseline is established for each segment of track, track sections in need of grinding shall be prioritized in the grinding program;
 6. Rail dampers: In addition to rail grinding, rail dampers may be utilized to achieve program objectives in noise-sensitive areas.

These in-lieu measures shall be designed to achieve the FTA Moderate Impact criteria. If attenuation below these levels cannot be confirmed, then Sacramento Regional Transit shall implement the sound wall mitigation as specified in the Phase 2 SFEIS/SFEIR as

Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
9	09/26/11	Open	Action	09/01/11

Subject: Approving a Resolution Adopting a Mitigated Negative Declaration for Modifications to the Blue Line to Cosumnes River College Light Rail Extension Project and an Addendum to the Mitigation Monitoring and Reporting Plan for the Project

designed to achieve the FTA Moderate Impact criteria. Confirmation that this alternative mitigation program is effective will be based on a preliminary monitoring effort. For a period of not less than two years, noise measurements shall be taken on a biannual basis at appropriate locations along the alignment. If the FTA Moderate Impact criteria are exceeded during two successive monitoring cycles, or if the program is otherwise demonstrated to be less than effective in meeting these criteria, then the sound wall mitigation specified in the Phase 2 SFEIS/SFEIR shall be implemented.

For the vibration impacts in the vicinity of UPRR tracks when installing sheet piling, the following measures will be implemented:

1. Mitigation measures already prescribed in the previously adopted SFEIS/SFEIR.
2. Prior to use of vibratory hammers, initial trenching shall be conducted to minimize vibration during the preliminary installation of sheet piling. Before initiating the pile driving, the contractor shall submit a vibration monitoring plan to the Resident Engineer and have the plan approved by the Resident Engineer. Monitoring shall occur on a continual basis during the use of vibratory hammer equipment whenever activities are occurring within 50 feet of the PG&E pipeline. If the monitoring determines that thresholds are likely to be exceeded, all vibration-producing operations must stop until it can be ensured that construction may commence without exceeding applicable safety standards. Monitoring results shall be recorded hourly in a log and be available at the work site for inspection by the Resident Engineer, project managers, construction supervisors, PG&E representatives, and other appropriate personnel.

The IS/EA concluded that the two impacts listed above would be reduced to Less Than Significant if certain mitigation efforts are applied. Prior to approving the MND, the RT Board must consider the MND, together with any comments received during the public review process. The Board can then adopt the MND only if there is no substantial evidence that the project will have a significant environmental effect on the environment and that the MND reflects the lead agency's independent judgment and analysis.

If the RT Board determines that there are no significant environmental effects with the adoption of the specified mitigation measures, a Mitigated Negative Declaration (Exhibit A) will be adopted. The Board will also adopt an addendum to the SSCP2 Mitigation Monitoring and Reporting Plan (Exhibit B) to include any additional mitigation measures prescribed in the IS/MND. If the Board adopts the MND, RT must file a Notice of Determination within five working days of this approval. The Notice of Determination will approve the Project as modified and be available for a period of 30 days per CEQA guidelines.

Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
9	09/26/11	Open	Action	09/01/11

Subject: Approving a Resolution Adopting a Mitigated Negative Declaration for Modifications to the Blue Line to Cosumnes River College Light Rail Extension Project and an Addendum to the Mitigation Monitoring and Reporting Plan for the Project

Staff recommends that the Board approve the attached resolution which adopts a Mitigated Negative Declaration and an Addendum to the Mitigation Monitoring and Reporting Plan for the Blue Line to Cosumnes River College Light Rail Extension, and directs the filing of a Notice of Determination.

RESOLUTION NO. 11-09-_____

Adopted by the Board of Directors of the Sacramento Regional Transit District on this date:

September 26, 2011

**ADOPTING A MITIGATED NEGATIVE DECLARATION FOR MODIFICATIONS TO
THE BLUE LINE TO COSUMNES RIVER COLLEGE LIGHT RAIL EXTENSION
PROJECT AND AN ADDENDUM TO THE MITIGATION MONITORING AND
REPORTING PLAN FOR THE PROJECT**

BE IT HEREBY RESOLVED BY THE BOARD OF DIRECTORS OF THE SACRAMENTO REGIONAL TRANSIT DISTRICT AS FOLLOWS:

WHEREAS, on October 27, 2008, the RT Board of Directors previously approved and certified a Subsequent Final Environmental Impact Report for the Blue Line to Cosumnes River College Light Rail Extension Project (Project) [then referred to as the South Sacramento Corridor Phase 2 Extension Project] in compliance with the California Environmental Quality Act (CEQA) and adopted a Mitigation Monitoring and Reporting Plan for the Project; and

WHEREAS, in 2009, RT identified several minor design changes to the Project and prepared a CEQA Addendum which was received and approved by the RT Board on December 14, 2009, after finding that the changes to the Project were minor and that none of the conditions set forth in Section 15162 of the CEQA Guidelines were present; and

WHEREAS, in 2011, RT identified several possible modifications to the Project, including: 1) adjustments to the separation between the Project's proposed alignment and the Union Pacific Railroad tracks; 2) utility relocations; 3) adjustments to the alignment related to City of Sacramento levee setback requirements; 4) relocation of a traction power substation; and 5) extension of tailtrack at the Project's southern termini at Cosumnes River College for vehicle storage; and

WHEREAS, RT conducted a public information meeting on February 10, 2011 at Susan B. Anthony School to inform the public of the proposed modifications and to solicit input on potential concerns and alternatives; and

WHEREAS, RT staff participated in a meeting of the Detroit Boulevard Neighborhood Association on April 13, 2010 to receive input related to the relocation of a PG&E natural gas line as part of the Project modifications; and

WHEREAS, an Initial Study was prepared by and for RT to ascertain whether the proposed modifications to the Project would have a significant effect on the environment and to identify any project changes and/or mitigation measures to avoid or reduce any such impacts to a less than significant level; and

WHEREAS, the Initial Study identified potentially significant effects and mitigation measures which could reduce such impacts to a less than significant level; and

WHEREAS, RT consulted with and requested comments on the IS from Responsible Agencies, Trustee Agencies, and other federal, state and local agencies in compliance with CEQA Guidelines; and

WHEREAS, the Initial Study, a Notice of Intent to Adopt a Mitigated Negative Declaration, and a Mitigated Negative Declaration were provided to the public, transportation planning agencies, Responsible Agencies, Trustee Agencies, federal agencies, and the County Clerk in compliance with CEQA Guidelines; and

WHEREAS, the Notice of Intent to Adopt a Mitigated Negative Declaration and the Mitigated Negative Declaration were sent to designated parties, published in local newspapers, and sent to owners and occupants of properties contiguous to the project; and

WHEREAS, the Initial Study, Notice of Intent to Adopt a Mitigated Negative Declaration, and a Mitigated Negative Declaration were forwarded to the Office of Planning and Research pursuant to CEQA Guidelines, and

WHEREAS, the County Clerk posted the proposed Mitigated Negative Declaration for at least 20 days; and

WHEREAS, the proposed Mitigated Negative Declaration was submitted to the State Clearinghouse pursuant to CEQA Guidelines; and

WHEREAS, RT conducted several public meetings on the proposed modifications and solicited public comment on the proposed changes.

THEREFORE, BE IT FUTHER RESOLVED, that this Board does hereby adopt the following findings, which this Board finds are supported by substantial evidence in light of the whole record:

- A. THAT, an Initial Study has been prepared pursuant to CEQA;
- B. THAT, the Initial Study identified potentially significant effects on the environment from the proposed modifications to the Project;
- C. THAT, the Initial Study identified mitigation measures which would avoid or mitigate the effects to a point where no significant impacts would occur;
- D. THAT, the Initial Study/Mitigated Negative Declaration incorporates mitigation measures into the Project which would avoid or mitigate the effects to a point where no significant impacts would occur;
- E. THAT, the Board certifies the Initial Study/Mitigated Negative Declaration has been completed and circulated in compliance with CEQA and is consistent with state and RT guidelines implementing CEQA;

- F. THAT, the Board has reviewed and considered the subject Initial Study, the proposed Mitigated Negative Declaration, all comments received during the public review period, as well as written and oral comments and other evidence presented by all persons, including members of the public and staff members, who appeared and addressed the Board;
- G. THAT, the Board has before it all of the necessary environmental information required by CEQA to properly analyze and evaluate any and all of the potential environmental effects of the proposed modifications to the Project;
- H. THAT, the board has reviewed and considered the Initial Study and Mitigated Negative Declaration and related Mitigation Monitoring and Reporting Program, which reflects the Board's independent judgment;
- I. THAT, the Board finds that there is no substantial evidence in the record that the Project modifications, as mitigated, will have a significant effect on the environment. Mitigation measures for noise and vibration impacts have been incorporated into the Project to reduce impacts to a less than significant level and
- J. THAT, based on the evidence presented and the records and files herein, the Board determines that the proposed modifications to the Project will not have a significant effect on the environment if the mitigation measures listed and identified in the Mitigated Negative Declaration are implemented.

RESOLVED FURTHER THAT, the Board approves and adopts a Mitigated Negative Declaration for the modifications to Blue Line to Cosumnes River College Light Rail Extension Project, set out as Exhibit A and incorporated herein by this reference; and

RESOLVED FURTHER THAT, the Board approves and adopts an Addendum to the Mitigation Monitoring and Reporting Plan for the Blue Line to Cosumnes River College Light Rail Extension Project, set out as Exhibit B and incorporated herein by this reference, to include those additional mitigation measures prescribed in the Initial Study/Mitigated Negative Declaration into the Project as a condition of the approval of the Project modifications; and

RESOLVED FURTHER THAT, the Board directs staff to file a Notice of Determination within five working days of this approval; and

RESOLVED FURTHER THAT, the Board designates the Assistant General Manager for Engineering and Construction, or his/her designee, located at 1400 29th Street, Sacramento, CA, 95812, as the custodian of the records in this matter.

DON NOTTOLI, Chair

A T T E S T:

MICHAEL R. WILEY, Secretary

By: _____
Cindy Brooks, Assistant Secretary

PROPOSED MITIGATED NEGATIVE DECLARATION

Project Name: South Sacramento Corridor Light Rail Project Phase 2 Extension Project Modifications

Lead Agency/Project Proponent: Sacramento Regional Transit District

Brief Project Description: The South Sacramento Corridor Light Rail Project Phase 2 Extension Project will extend light rail transit service 4.3 miles south from the South Sacramento Corridor Light Rail Project Phase 1 terminus at Meadowview Road to Cosumnes River College. The project was evaluated by the Sacramento Regional Transit District (RT) in a Supplemental Final Environmental Impact Statement/Subsequent Final Environmental Impact Report (SFEIS/SFEIR) in 2008. The SFEIS/SFEIR evaluated three alternatives for the project and selected the Phase 2 extension alternative described above as the Preferred Alternative. The SFEIS/SFEIR was approved in December 2008 through the filing of a Notice of Determination with the State of California by RT, and the adoption of a Record of Decision (ROD) by FTA.

Since approval of the SFEIS/SFEIR in 2008, a number of needed modifications to the project's design have been identified by RT. Because these modifications were not evaluated in the SFEIS/SFEIR, the proposed modifications require further environmental evaluation in compliance with CEQA. The project modifications are comprised of the following principal elements:

1. Realignment of approximately 4,700 feet of the northernmost portion of the Phase 2 extension adjacent to the UPRR tracks, in accordance with UPRR requirements for track separation. Three potential design options are under consideration for this modification:
 - *Design Option A: Realignment of RT Tracks 33 Feet Westward, Minimum 53-Foot Track Separation.* This design option would shift both of the RT tracks approximately 33 feet to the west to comply with UPRR's separation requirement. The proposed realignment would locate the RT tracks to the west of the SMUD power lines that follows the western portion of the UPRR corridor. This realignment would require the acquisition of additional right-of-way (ROW) to the west of the original alignment. In some cases, existing residences could be as little as 10 feet from the proposed LRT tracks. This design option would also include the placement of a crossover switch along this portion of the alignment.
 - *Design Option B: Realignment of RT Tracks 22 Feet Westward, Installation of Crash Wall, and Minimum 42-Foot Track Separation.* This design option would entail the installation of the RT double tracks approximately 22 feet westwards from their original approved alignment, with both tracks just to the west of the SMUD power lines, and the installation of a railway industry-compliant crash wall between the UPRR mainline track and the RT tracks. This design option would also necessitate the relocation of an existing PG&E natural gas pipeline that lies beneath the proposed alignment.
 - *Design Option C: No Crash Wall, No UPRR ROW Acquisition, and 90-Foot Track Separation.* This design option would entail the installation of both of the RT tracks to the west of the UPRR ROW, at a distance of approximately 90 feet from the existing UPRR track center, and full acquisition of approximately 36 properties and residences to accommodate the RT alignment, with associated relocations.
2. The PG&E natural gas pipeline would either remain in its current location within the UPRR corridor or it would be relocated, depending upon which design option for the LRT track

alignment is chosen. Under Design Options A and C, the pipeline would remain in place and would not require relocation. Under Design Option B, the pipeline would be relocated to Detroit Boulevard along half of the roadway's length, at which point it would turn eastward within an existing utility corridor and return to the existing pipeline easement;

3. Adjustments to the proposed Sacramento Regional Transit District ROW to increase distance from the Morrison Creek levee, as required by the adopted City of Sacramento General Plan;
4. Relocation of TPSS #10 across Franklin Boulevard to provide for optimum power distribution along the Phase 2 extension; and
5. Extension of the tailtracks at the project's southern terminus to provide for LRT vehicle storage during non-commute hours.

Initial Study: An Initial Study has been prepared by RT in accordance with the California Environmental Quality Act in order to ascertain whether the proposed project may have a significant effect on the environment. On the basis of this study, it is determined that the proposed action will have:

No impact on agricultural resources, electromagnetic fields (EMF), geology and soils, hazardous wastes, hydrology, floodplains, and water quality, mineral and energy resources, public services and facilities, recreational facilities, safety and security, utilities, transportation, and Section 4(f) resources.

A less-than significant impact on climate change, land use, and environmental justice.

A less-than-significant impact with mitigation already prescribed in the previously adopted SFEIS/SFEIR on aesthetics and visual resources, air quality, biological resources, cultural resources, population, housing, and socio-economics.

A less-than-significant impact with mitigation already prescribed in the previously adopted SFEIS/SFEIR and incorporation of the following alternative mitigation measure for potential noise impacts:

N&V-7 Where appropriate, in lieu of the recommended sound walls, Sacramento Regional Transit shall install rail dampers and implement a maintenance program of rail grinding to lessen noise emissions from the LRT wheel/rail interface. Components of the program shall include, but not necessarily be limited to, the following:

1. Wheel truing: Regular inspection of wheels and truing of wheels that are out of specifications to ensure that rough wheels do not lead to increased noise levels;
2. Rail grinding contract: A multi-year contract for rail grinding that includes annual grinding on an as-needed basis;
3. Grinding specification: All rail grinding shall comply with a specification that includes limits on surface roughness;
4. Verification measurements: Post-grinding measurements that verify that the rails meet the grinding specification. This step along with Step 3 shall be performed to provide RT with assurance that the grinding is performed correctly and to allow for competitive bidding;
5. Permanent monitoring and prioritization program: The permanent monitoring program shall be designed to determine when noise levels start to increase on a section of track

and to prioritize the annual grinding. Once a baseline is established for each segment of track, track sections in need of grinding shall be prioritized in the grinding program;

6. Rail dampers: In addition to rail grinding, rail dampers may be utilized to achieve program objectives in noise-sensitive areas.

These in-lieu measures shall be designed to achieve the FTA Moderate Impact criteria. If attenuation below these levels cannot be confirmed, then Sacramento Regional Transit shall implement the sound wall mitigation as specified in the Phase 2 SFEIS/SFEIR as designed to achieve the FTA Moderate Impact criteria. Confirmation that this alternative mitigation program is effective will be based on a preliminary monitoring effort. For a period of not less than two years, noise measurements shall be taken on a biannual basis at appropriate locations along the alignment. If the FTA Moderate Impact criteria are exceeded during two successive monitoring cycles, or if the program is otherwise demonstrated to be less than effective in meeting these criteria, then the sound wall mitigation specified in the Phase 2 SFEIS/SFEIR shall be implemented.

A less-than-significant impact with mitigation already prescribed in the previously adopted SFEIS/SFEIR and incorporation of the following alternative mitigation measure for potential construction vibration impacts in the vicinity of the UPRR tracks:

N&V-8 Prior to use of vibratory hammers, initial trenching shall be conducted to minimize vibration during the preliminary installation of sheet piling. Before initiating the pile driving, the contractor shall submit a vibration monitoring plan to the Resident Engineer and have the plan approved by the Resident Engineer. Monitoring shall occur on a continual basis during the use of vibratory hammer equipment whenever activities are occurring within 50 feet of the PG&E pipeline. If the monitoring determines that thresholds are likely to be exceeded, all vibration-producing operations must stop until it can be ensured that construction may commence without exceeding applicable safety standards. Monitoring results shall be recorded hourly in a log and be available at the work site for inspection by the Resident Engineer, project managers, construction supervisors, PG&E representatives, and other appropriate personnel.

Finding: The RT Board finds, on the basis of the whole record before it, that there is no substantial evidence showing that the proposed project would have a significant effect on the environment, with incorporation of the mitigation measures recommended herein. This Initial Study and Mitigated Negative Declaration reflects the Board's independent judgment and analysis.

Sacramento Regional Transit District
 Don Nottoli, Chair, RT Board of Directors
 September 26, 2011



Atkins North America, Inc.
475 Sansome Street, Suite 2000
San Francisco, California 94111-3164

Telephone: +1.415.362.1500
Fax: +1.415.362.1954

www.atkinsglobal.com/northamerica

MEMORANDUM

To: Diane Nakano, Assistant General Manager, Sacramento Regional Transit District
From: Luke Evans, Senior Project Manager
Date: September 23, 2011
Subject: **Response to Comments on the IS/EA for the South Sacramento Light Rail Project Phase 2 Extension Project Modifications**

Introduction

On August 2, 2011 the Sacramento Regional Transit District (RT) and the Federal Transit Administration (FTA) distributed a Draft Initial Study/Environmental Assessment (IS/EA) for public comment for the South Sacramento Corridor Light Rail Project Phase 2 Extension Project Modifications. The Notice of Availability/Notice of Intent (NOA/NOI) of the Draft IS/EA was sent to interested members of the public and responsible agencies in early August. Certain public agencies also received copies of the IS/EA via the State Clearinghouse (State Clearinghouse No. 1996052075). The public comment period ended on September 22, 2011.

The purpose of this memorandum is to summarize each comment that was received and to provide responses to each comment as appropriate. During the public comment period, RT received nine comment submittals from public agencies and members of the general public. Verbal comments were also recorded at a public meeting on the project that was held on August 15, 2011. Each of the comments are summarized and responded to below in the order they were received. The original comment letters are attached to this memorandum as Attachment A.

Responses to Comments Received on the IS/EA

Comment No. 1 – Public Meeting (August 15, 2011): Comments made by members of the public at the meeting were questions regarding project details. Clarifications were provided about additional property acquisition, temporary construction easements, the three design options for realignment of the LRT tracks in the vicinity of the Union Pacific Railroad (UPRR) tracks, the location of the PG&E natural gas pipeline, the project's relationship to the South

Sacramento Streams Project, construction timelines, alternative transportation strategies, support for Design Option A, and opposition to Design Option B.

Response: The comments that were made during the public meeting essentially consisted of inquiries by members of the public with regard to the issues noted above. None of the comments/questions that were received raised any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. Therefore, no further response is required.

Comment No. 2 – Kay Chue Vans (August 17, 2011): The commenter expresses support for Design Option A and opposition to Design Option B. The reason for opposition to Design Option B is concern for neighborhood safety associated with the relocation of the PG&E natural gas pipeline beneath Detroit Boulevard that would be necessary as part of this design option.

Response: The comment represents the opinion of the author with regards to how the project should be developed. The comment does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. Therefore, no further response is required.

Comment No. 3 – Sacramento County Department of Transportation (August 17, 2011): The comment states that the Department has reviewed the Draft IS/EA and has no comments to offer.

Response: The comment is informational in nature and does not require a response. It does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. Therefore, no further response is required.

Comment No. 4 – California Regional Water Quality Control Board, Central Valley Region (August 19, 2011): The letter contains general information that is not specific to the Phase 2 project. The letter provides information regarding the project's need to comply with storm water discharge requirements, Best Management Practices (BMPs), Section 401 and Section 404 permits, and waste discharge regulations.

Response: The comment is informational in nature and does not require a specific response. On page 3.3-3, the IS/EA noted the regulatory requirements governing the proposed project, including those noted in RWQCB's letter. The comment does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. Therefore, no further response is required.

Comment No. 5 – California Public Utilities Commission (August 26, 2011): The letter provides information with respect to PUC's requirements for safe at-grade rail crossings, and the need for coordination with the PUC for the design and authorization of such crossings.

Response: The IS/EA assessed only those impacts associated with the proposed modifications to the previously approved Phase 2 Extension Project. None of the

proposed modifications would affect rail crossings. Therefore, the comments presented in the letter are not applicable to the IS/EA. However, to provide further clarification, it should be noted that the rail crossings and other infrastructure associated with the overall Phase 2 project were assessed in the Supplemental Final Environmental Impact Statement/Subsequent Final Environmental Impact Report (SFEIS/SFEIR) that was adopted for the overall Phase 2 project in 2008. The design requirements associated with rail crossing and other project infrastructure were disclosed and analyzed in the SFEIS/SFEIR (see page 4-163). As such, the letter does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA and/or disclosed previously. No further response is needed.

Comment No. 6 – Central Valley Flood Protection Board (August 30, 2011): The letter contains general information that is not specific to the Phase 2 project. The letter provides information regarding the project’s need to comply with applicable standards and regulations for the construction, maintenance, and protection of flood control facilities.

Response: The comment is informational in nature and does not require a specific response. Issues relating to hydrology and flood control were disclosed and analyzed in Section 4.9 of the SFEIS/SFEIR. It should also be noted that one of the modifications assessed in the IS/EA is intended to provide for sufficient separation of the proposed LRT tracks from the Morrison Creek levee. This modification will provide for enhanced protection of the existing flood control structure. The modification will also allow the project to be consistent with the recently adopted update to the City of Sacramento General Plan. The updated General Plan requires that development be located a minimum of 50 feet from flood control levees. The modified Phase 2 project would meet those requirements. As such, the comment does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. Therefore, no further response is required.

Comment No. 7 – City of Sacramento Department of Utilities (August 30, 2011): The letter contains comments regarding: 1) possible conflicts with City utilities; 2) stormwater quality requirements for parking facilities; 3) support for modifications that would increase the distance of the LRT tracks from the Morrison Creek levee; 4) a request for clarification of the LRT bridge at Morrison Creek levee; 5) support for project design options that would not require relocation of the PG&E natural gas pipeline; and 6) a request for appropriate setbacks for Traction Power Substation (TPSS) #10 from Union House Creek to provide for maintenance access.

Response: Of the six items raised in this comment letter, the first five fall outside of the scope of the IS/EA since they concern improvements that are associated with the larger Phase 2 Extension Project rather than just the proposed modifications that were analyzed in the IS/EA. However, to provide further clarification, additional information is provided below.

The LRT improvements proposed in the vicinity of Imagination Parkway would be

located on the other side (west) of Bruceville Road from Imagination Parkway. Therefore, they would not conflict with the City's proposed utility improvements. RT will continue to coordinate on these and other issues.

The new parking structure shown on Exhibit 2-19 of the IS/MND would be built in cooperation with Los Rios Community College District, Cosumnes River College and RT. The project would comply with all applicable regulatory and permitting requirements.

The Area of Potential Effect (APE) maps noted in the comment are based upon the APE maps that were originally presented to the State Historic Preservation Officer (SHPO) in 2003. The proposed alignment has since changed and the "LRT Bridge" noted on the first map in Appendix G is no longer part of the project; as illustrated in Figure 1-1 of the IS/EA, the revised alignment will turn to the southwest prior to reaching the Morrison Creek levee, and a bridge at that location will not be required.

With respect to the sixth and final item in the comment letter regarding the relocation of TPSS #10, RT will continue to coordinate with the City to ensure appropriate access to flood control facilities and other City infrastructure components.

The letter does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. Therefore, no further response is required.

Comment No. 8 – Sean Lee (August 31, 2011): The commenter expresses support for Design Option A and opposition to Design Option B. The reason for opposition to Design Option B was concern for neighborhood safety associated with the relocation of the PG&E natural gas pipeline beneath Detroit Boulevard that would be necessary as part of this design option. The commenter also expresses opposition to the proposed Morrison Creek Station, the desire for a grade-separated crossing at Meadowview Road, and the desire for a continuous soundwall to be installed along the full length of the LRT alignment adjacent to the UPRR tracks.

Response: With respect to the commenter's preference for one design option over another, the comment represents the opinion of the author with regards to how the project should be developed. As such, the comment does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. Therefore, no further response is required.

In regards to the comment about the Morrison Creek Station and a grade-separated crossing at Meadowview Road, these items are outside the scope of the IS/EA. The IS/EA assesses impacts associated with the proposed modifications to the previously approved Phase 2 Extension Project, none of which relate to Morrison Creek Station or to rail crossings. Therefore, the comments presented in the letter are not applicable to the IS/EA. The rail crossings and other infrastructure associated with the overall Phase 2 project were thoroughly assessed in the SFEIS/SFEIR for the Phase 2 project that was adopted in 2008. As such, the comment does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA and/or

not disclosed previously. Therefore, no further response is required.

The commenter also indicates a desire to have a continuous soundwall installed along the full length of the LRT tracks adjacent to the UPRR alignment. As noted in the IS/EA, RT analyzed the noise impacts associated with the proposed project using FTA's methodology for noise assessments. The FTA's Moderate Impact Criteria was used to determine the level of significance with respect to noise impacts. The analysis reveals that soundwalls would not be required along an approximately 750-foot-long segment of the alignment adjacent to the UPRR tracks. This conclusion stems from the increased distance of sensitive receptors from the LRT tracks along this portion of the alignment, which results in less noise exposure. In this area, noise impacts would not exceed the FTA's Moderate Impact Criteria, even without a soundwall. Noise levels would also remain within the City of Sacramento General Plan's Conditionally Acceptable range. Therefore, there would not be a significant impact to sensitive receptors along this portion of the alignment, and no need for a soundwall along this stretch of the proposed project. The commenter does not offer information to explain why a continuous soundwall would be warranted. Rather, the comment represents the opinion of the author with regards to how the project should be developed. As such, the comment does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. Therefore, no further response is required.

Comment No. 9 – City of Sacramento Department of Transportation (August 31, 2011): The comment noted that signalized intersections (at-grade crossings) for the Phase 2 project should incorporate Intelligent Transportation Systems (ITS) features such as CCTV cameras, light rail preemption equipment, etc. The comment also noted that a traffic control and construction plan would be required for the project and subject to review by the City of Sacramento Transportation Department. The comment also indicated a desire to continue existing coordination efforts between the City and RT.

Response: The IS/EA assessed only those impacts associated with the proposed modifications to the previously approved Phase 2 Extension Project. None of the proposed modifications would affect rail crossings. Therefore, the comments presented in the letter are not applicable to the IS/EA. However, for purposes of clarification, the design requirements associated with rail crossing and other project infrastructure were disclosed and analyzed in the SFEIS/SFEIR (see page 4-163). Mitigation measures prescribed within the SFEIS/SFEIR (Measures CT-7 and CT-8) included requirements for traffic management plans and ongoing coordination with local agencies during the construction process. RT will comply with all applicable federal, state, and local requirements with respect to these issues, and will continue to coordinate with the City and other jurisdictions throughout the construction process. The comment does not raise any concerns with any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. Therefore, no further response is required.

Conclusion and Recommendations

None of the comments that were received raise any concerns with the analysis in the Draft IS/EA nor any new environmental issues that have not been thoroughly analyzed in the Draft IS/EA. The comments offered no evidence of omissions, errors, or factual flaws contained within the Draft IS/EA. Therefore, there is no substantial evidence to indicate that the proposed project would have a significant effect on the environment, with incorporation of the mitigation measures recommended in the Draft IS/EA. As such, we recommend that the RT Board adopt the proposed Mitigated Negative Declaration for the project.

EXHIBIT B

AMENDED MITIGATION MONITORING PROGRAM ENVIRONMENTAL IMPACT REPORT

SACRAMENTO REGIONAL TRANSIT

TABLE OF CONTENTS

TABLE OF CONTENTS.....	1
INTRODUCTION	2
<u>Purpose</u>	2
<u>Project and Monitoring Responsibilities</u>	2
<u>Mitigation Monitoring Program</u>	2
Description of Impacts and Mitigation Measures.....	2
Lead Agency	2
Implementing Agency.....	3
Timing.....	3
Monitoring Record.....	3
<u>Updating Monitoring Program</u>	3
<u>Completion of Monitoring Program</u>	3
<u>Project Records</u>	3
<u>Coordination with RT's Quality Assurance Program</u>	3
LONG TERM IMPACTS	4
3.3 Traffic and Transportation.....	5
3.3.7 Delays at Grade Crossings.....	6
4.1 Visual and Aesthetics.....	7
4.4 Biological Resources	8
4.5 Cultural Resources.....	10
4.6 Electromagnetic Fields (EMF) and Electromagnetic Interference (EMI)	11
4.8 Hazardous Wastes and Materials.....	12
4.9 Hydrology, Floodplain and Water Quality	13
4.12 Noise and Vibration.....	14
4.16 Safety and Security	16
PROJECT CONSTRUCTION IMPACTS	17
5.2.1 Construction-Phase Impact on Aesthetics	18
5.2.3 Construction-Phase Impact on Air Quality.....	19
5.2.4 Construction-Phase Impacts on Biological Resources	21
5.2.5 Construction-Phase Cultural Resource Effects.....	25
5.2.7 Construction-Phase Geological and Soils and Seismicity Impacts.....	26
5.2.8 Construction-Phase Effects due to Hazardous Wastes	27
5.2.9 Construction-Phase Impact on Hydrology, Floodplain and Water Quality.....	28
5.2.12 Construction-Phase Impact on Neighborhoods and Businesses	29
5.2.13 Noise and Vibration during Construction.....	30
5.2.15 Construction Impacts on Public Services and Facilities.....	31
5.2.16 Safety and Security during Construction.....	32
5.2.17 Traffic and Transportation during Construction.....	33
5.2.18 Construction-Phase Effects on Utilities.....	34
5.2.19.1 Cumulative Construction-Phase Impacts.....	35

INTRODUCTION

Purpose

This mitigation monitoring program is developed pursuant to Public Resources Code (California Environmental Quality Act) §21081.6. This section requires all lead agencies responsible for certifying an environmental impact report (EIR) with mitigation measures or adopting a mitigated negative declaration to prepare and approve a mitigation reporting or monitoring program. The reporting or monitoring program is to be structured as necessary to ensure that changes to the project that the lead agency has adopted to mitigate or avoid significant effects on the environment are carried out during project implementation.

As noted further in this document, this mitigation monitoring and reporting program may be amended to provide for the addition of new or modified mitigation measures that are adopted as part of a subsequent or supplemental EIR/negative declaration associated with the project. As per those requirements, this amended mitigation monitoring and reporting program includes two new mitigation measures for the project as identified in the South Sacramento Corridor Light Rail Project Phase 2 Extension Project Modifications Initial Study/Environmental Assessment. These measures, identified herein as Mitigation Measures N&V-7 and CN&V-5, are noted with underlined text on pages 14 and 30 of this document. All other mitigation measures that were previously adopted remain unchanged and in effect.

Project and Monitoring Responsibilities

The Sacramento Regional Transit District ("RT") adopted this mitigation monitoring program for the South Sacramento Corridor Phase 2 SFEIS/SFEIR Project. Monitoring assignments are made based on the expertise or authority of the person(s) assigned to monitor the specific activity. For changes that have been required or incorporated into the project at the request of an agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by RT, prepare and submit a proposed reporting or monitoring program.

Mitigation Monitoring Program

The mitigation monitoring program of the attached matrix identifying the mitigation measures, the responsible party, the monitoring activity, schedule for completion, and the date of completion to be initiated by the appropriate RT Division Director. These categories are further explained as follows:

Description of Impacts and Mitigation Measures

This is a summary of the impacts and mitigation measures as described in the Final Environmental Impact Statement/Environmental Impact Report (FEIS/EIR). The section numbers for the mitigation measures correspond with the section number in the mitigation summary table in the certified EIR for this project.

Lead Agency

The lead agency is the agency or individual with responsibility for ensuring the mitigation measure is carried out.

Implementing Agency

The monitoring agency is the public agency with responsibility for monitoring to ensure that the mitigation measure is effective in mitigating the impact.

Timing

Timing specifies the date or project phase by which the mitigation measure is to be initiated and completed.

Monitoring Record

This section provides for recording compliance and monitoring over time and would be initiated by the RT Division Director who supervises the person assigned responsibility for monitoring compliance with the applicable mitigation measures.

Updating Monitoring Program

If a subsequent or supplemental EIR or negative declaration is prepared for this project, this monitoring program shall be amended to take into effect any new or changed mitigation measures that may be required under the subsequent or supplemental EIR/negative declaration.

Completion of Monitoring Program

Upon completion of the monitoring program, the attached summary matrix will be submitted to the RT General Manager for acceptance and approval. If the monitoring program and all mitigation measures are completed as specified in the certified EIR for the South Sacramento Corridor Phase 2 SFEIS/SFEIR Project, the General Manager shall accept, date, and sign the matrix summary. If a mitigation measure or measures were not properly implemented, the General Manager shall take such action as is required to comply with the California Environmental Quality Act ("CEQA"). The attached summary matrix shall be annotated to summarize the actions so taken before the General Manager accepts, dates, and signs the matrix.

Project Records

The originally signed matrix summary shall be maintained with the records for the project.

Coordination with RT's Quality Assurance Program

This mitigation monitoring program is part of RT's overall quality assurance program for the light rail extensions. The measures adopted in this Mitigation Monitoring Program are to be implemented throughout the following project stages:

- 1) Final Design
- 2) Mobilization
- 3) Construction
- 4) Pre-Service Testing
- 5) Operations

The elements that are specified for implementation during final design are meant to be included in the appropriate design drawings and specifications; by inclusion in the final design, these measures will be carried out during construction.

The measures that are specified for implementation during the construction phase are to be included in the construction contract specifications during the final design phase. The remaining measures will be incorporated in an on-going safety and quality assurance program by RT staff.

LONG TERM IMPACTS

This section contains mitigation measures for long-term impacts. These measures generally require monitoring of system operations over time and the modification of those operations to reduce adverse environmental impacts. Compliance with these measures would result in the reduction of adverse environmental impacts.

3.3 Traffic and Transportation

Description of Impact and Mitigation Measure 3.3.9	Impact on Intersections: Under the LPAP2, operations at five intersections in the City of Sacramento and one intersection in the County of Sacramento are projected to exceed thresholds.	
	Parking: The LPAP2 is projected to reduce downtown parking demand by about 1,300 spaces (in 2025).	
	T-1	Center Parkway & CRB: add a second southbound left turn lane & provide overlap for all right turn phases. Mitigation requires widening bridge over Union House Creek which is included in the projects costs.
	T-2	Franklin Boulevard & CRB: provide overlap for all right turn phases.
	T-3	Bruceville Road & CRC: Add a second eastbound left turn lane & add a shared through-right turn lane.
	T-4	Bruceville Road & Old Calvine Road: provide overlap signal phasing on the right turn.CRC new South Access & Old Calvine Road: Signalize the intersection.
	T-5	CRC new South Access & Old Calvine Road: provide overlap signal phasing on the right turn.
	T-6	Auberry Drive & Calvine Road: provide protected phasing for the northbound and southbound approaches.
	T-10	Center Parkway & CRB: add a second southbound left turn lane and provide overlap for all right turn phases and restripe the eastbound approach to one left, one through and through right.
	T-11	Bruceville Road & CRB: provide overlap for all right turn phases.
	T-12	Bruceville Road & Sheldon Road: provide overlap for all right turn phases.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during the final design and construction phases of the project
	Complete:	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

3.3.7 Delays at Grade Crossings

Description of Impact and Mitigation Measure 3.3.7	Increased queue times and decreased efficiency at grade crossings	
	T-7	RT will implement crossing signal control measures at LRT grade crossings adjacent to stations.
	T-8	RT will implement “near side” crossing signal control measures at the intersections of Center Parkway and CRB, Franklin Boulevard and CRB, and Bruceville Road and Cosumnes River College to provide additional safety.
	T-9	Express trains not stopping at a near side station would have equipment to bypass the timed delay.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during the final design and construction phases of the project
	Complete:	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

4.1 Visual and Aesthetics

Description of Impact and Mitigation Measure 4.1.5	New LRT facilities would introduce visual changes that would be perceived by motorists, residents and business occupants within the project corridor and would add more or less to the visual elements of the urban scene, depending on the design options at each location.	
	V&A-1	RT will invite public participation regarding station and noise wall design during the final design phase of the project.
	V&A-2	RT will incorporate landscaping into the final design to soften views of LPAP2 LRT stations, PNR lots, substations and the optional shuttle lot.
	V&A-3	RT will control light and glare by directing lighting associated with LRT facilities onto the premises of each facility and away from surrounding land uses.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	During construction phases of the project
	Complete:	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

4.4 Biological Resources

<p>Description of Impact and Mitigation Measure 4.4.6</p>	<p>Loss of 0.311 acres of jurisdictional wetlands for the LPAP2. Up to 0.14 acres of seasonal wetlands that provide suitable habitat for vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, and California linderiella; 0.04 acres of suitable habitat for western pond turtle and giant garter snake; and between 0.70 and 63.34 acres of nesting and foraging habitat for 13 special-status bird species would be affected. Possible loss of Valley oaks (<i>Quercus lobata</i>), interior live oak (<i>Quercus wislizenii</i>), and blue oak (<i>Quercus douglasii</i>) from SRCSD Bufferlands. Trees planted in 1995 as part of the Trail of Trees effort.</p>	
	B-1	Compensate for impacts to vernal pool crustacean habitat through purchase of the equivalent of 2.26 acres of preservation credits, and 0.14 acre of creation/restoration credits from a USFWS-approved conservation bank, or combination of banks.
	B-2	Transplant directly affected elderberry shrubs and purchase the appropriate number of beetle habitat credits at a USFWS-approved conservation bank prior to ground breaking.
	B-3	Purchase equivalent of 9.823 acres of giant garter snake habitat credits from a USFWS-approved conservation bank.
	B-4	Consult with SRCSD Bufferlands manager to explore opportunities to compensate for impacts to nesting and foraging habitat for special-status bird species.
	B-5; B-6	Permanent impacts to western burrowing owl burrows and foraging habitat and Swainson’s hawk foraging habitat will be mitigated through the purchase of credits at a CDFG-approved mitigation bank.
	B-7	Provide a qualified arborist to survey potentially affected trees. To extent possible, avoid removal of native oaks, mature native riparian trees, and any other protected trees. Develop and implement a mitigation plan, in accordance with the applicable City ordinances, to compensate for removal of protected trees. Compensate for loss of protected trees pursuant to the City of Sacramento Heritage Tree Ordinance.
	B-8	Will obtain all necessary permits pertaining to affected waters of the U.S. The permitting process would also require compensation for project-related impacts.
	B-9	Purchase mitigation credits in an agency-approved wetland mitigation bank or an in lieu fee.

Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District in cooperation with the S	
Monitoring Agency	California Department of Fish and Game, U.S. Fish and Wildlife Service and/or U.S. Army Corps of Engineers, as applicable	
Timing	Start:	Before any construction or grading within 125 feet of any of the identified biological resources or their associated habitat
	Complete:	On-going

Date	Signature of Monitor	Action/Accomplishments

4.5 Cultural Resources

Description of Impact and Mitigation Measure 4.5.4	No archaeological resources appear eligible for listing in the NRHP or the CRHR. Because much of the APE has been covered over with pavement or other obstructions, however, the survey could not conclude with certainty that there are no unrecorded cultural remains within the APE. Areas in which such remains may exist have been identified. No historic architectural resources appear eligible for listing in the NRHP or CRHR, or are included in any local list of historic resources.	
	H&C-1	During construction in identified areas, monitoring will be conducted by a qualified professional archaeologist and/or a member of the local Native American community. The monitor(s) will have the ability to temporarily stop any work in an area where archaeological materials or human remains are uncovered long enough to assess the finds and, in the case of human remains, to follow the stipulations set out in the State Health and Safety Code (Section 7050.5). Such provisions will be in the construction contracts.
	H&C-2	If unanticipated archaeological resources are encountered during construction, they would be addressed in consultation with the Office of Historic Preservation (OHP) or in accordance with an archaeological treatment plan to be developed in consultation with OHP. Such provisions will be in the construction contracts.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District, the cities and County	
Monitoring Agency	Sacramento Regional Transit District in coordination with the State Historic Preservation Officer	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project

Date	Signature of Monitor	Action/Accomplishments

4.6 Electromagnetic Fields (EMF) and Electromagnetic Interference (EMI)

Description of Impact and Mitigation Measure 4.6.3	Present evidence suggests that any increased health risks from EMF exposures attributable to light rail improvements would be very small. The LPAP2 would generate EMF, which could interfere with the effective performance of electronics and electrical equipment.	
	EMF-1	The potential for EMI effects can be minimized by ensuring that all electronic equipment is operated with a good electrical ground and that proper shielding is provided for electronic system cords, cables, and peripherals.
	EMF-2	Specialized components, such as filters, capacitors and inductors that can also reduce EMI susceptibility of certain systems will be installed, as appropriate.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	During construction phases of the project
	Complete:	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

4.8 Hazardous Wastes and Materials

<p>Description of Impact and Mitigation Measure 4.8.3</p>	<ul style="list-style-type: none"> • Construction activities may be affected by releases of hazardous materials from known or previously unidentified sites. Clearing/grubbing/excavation may expose or encounter hazardous materials. • Contaminated groundwater may be encountered. • Dewatering during trenching or excavating may change or amplify local hydraulic gradients and draw groundwater contamination into the trench or excavation. <p>New tracks and passenger LRT service would be introduced into a segment of the existing UPRR corridor with existing freight rail service. Safety issues associated with any hazardous materials transport on freight trains would not increase or decrease and would remain the responsibility of the UPRR.</p>	
	HW-1	Exposed soil in the median or on the shoulder of highways and primary traffic corridor that are more than 20 years old will be tested for lead prior to beginning of construction.
	HW-2	The three buildings subject to demolition will be inspected (and tested as necessary) for asbestos containing materials and lead based paints.
	HW-3	Contractors will incorporate procedures into a construction management plan describing how they will monitor for subsurface contamination.
	HW-4	Prepare and implement a contingency plan for handling/disposing of contaminated soil and groundwater
	HW-5	Additional site-specific information will be collected regarding hazardous materials use and hazardous waste generation for those properties that would be acquired for right-of-way or support facilities.
	HW-6	Perform Phase 2 site investigations where indicated.
	HW-7	All contaminated materials encountered will be evaluated in the content of applicable local state, and federal regulations and/or guidelines governing hazardous wastes. Remediation and/or disposal of all materials deemed to be hazardous.
	HW-8	All materials deemed to be hazardous will be remediated and/or disposed of following applicable regulatory agency regulations and/or guidelines.
<p>Lead Agency</p>	Sacramento Regional Transit District	
<p>Implementing Agency</p>	Sacramento Regional Transit District and the UPRR	
<p>Monitoring Agency</p>	Sacramento Regional Transit District	
<p>Timing</p>	<p>Start:</p>	Before and during project construction
	<p>Complete:</p>	Upon completion of the construction phase of the project

Date	Signature of Monitor	Action/Accomplishments

4.9 Hydrology, Floodplain and Water Quality

Description of Impact and Mitigation Measure 4.9.3.1 & 4.9.3.2	<p>From Morrison Creek to Union House Creek, and from Franklin Boulevard to Center Parkway, a flood control project (by others), currently under construction, will eliminate 100-year flood hazards.</p> <p>From Union House Creek to Franklin Blvd., the LPAP2 line would be constructed on a fill embankment above the 100-year flood elevation. Culverts through the embankment would convey runoff/flood flows.</p> <p>The Franklin PNR lot would be constructed above the 100-year flood elevation. The south berm of a large detention basin at Franklin Station would be modified. Flood storage reduction would be avoided.</p> <p>Runoff from the LPAP2 would be negligible.</p>	
	WQ-1	Develop final floodplain mitigation plan in consultation with ACOE and SAFCA.
	WQ-2	In the unlikely event the SSCS project is delayed and floodplain protection is not in place, mitigation measures will be incorporation into the LPAP2 design to minimize impacts due to potential flooding.
	WQ-3	For fill in 100-year floodplain either (1) excavate compensating floodplain storage equal to the amount removed, or (2) pay a mitigation fee to SAFCA.
	WQ-4	Parking lot pavements, catch basins, and storm drains will be cleaned regularly. Solid waste will be collected from facilities on a regular basis.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District in cooperation with ACOE and SAFCA.	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project. Ongoing maintenance.

Date	Signature of Monitor	Action/Accomplishments

4.12 Noise and Vibration

<p>Description of Impact and Mitigation Measure 4.12.7 & 4.12.8</p>	<p><u>Noise</u> FTA noise impacts along the LPAP2 alignment would vary depending on the design options selected. Noise impacts along the full LPAP2 alignment would vary from 348 (57 “Moderate” and 291 “Severe”) to 378 (53 “Moderate” and 325 “Severe”).</p> <p><u>Design Requirements/RT Practices:</u> Maintain track and vehicles regularly to reduce noise levels from vehicles.</p> <p><u>Vibration:</u> Vibration impacts along the full LPAP2 alignment would be the same for all design options selected, with the number of homes affected being 29.</p>	
	<p>N&V-1</p>	<p>Noise barriers will be constructed to mitigate noise impacts in compliance with FTA and RT criteria.</p>
	<p>N&V-2</p>	<p>Sound insulation could be considered for residences near the Meadowview Road At-Grade Option and N. Laguna Drive, south of CRB.</p>
	<p>N&V-3</p>	<p>RT will coordinate mitigation with SAFCA, ACOE, and City of Sacramento to address barrier needs of South Sacramento Corridor Phase 2, flood control, and CRB Widening and Extension projects.</p>
	<p>N&V-4</p>	<p>Other potential mitigation measures include minimizing the wheel impacts at crossovers and various approaches, implementing an ongoing rail grinding program along with the recommended wheel profile to reduce the incidence of wheel squeal.</p>
	<p>N&V-5</p>	<p>Bell sound levels at rail/roadway crossings will be set to minimum sound levels allowed by the CPUC. RT will specify that bells with easily adjustable volumes and adjustable ring rates be installed.</p>
	<p>N&V-6</p>	<p>Ballast mats would be used to reduce vibration levels in sensitive areas.</p>
	<p><u>N&V-7</u></p>	<p><u>Where appropriate, in lieu of the recommended sound walls, Sacramento Regional Transit shall install rail dampers and implement a maintenance program of rail grinding to lessen noise emissions from the LRT wheel/rail interface. Components of the program shall include, but not necessarily be limited to, the following:</u></p> <ol style="list-style-type: none"> 1. <u>Wheel truing: Regular inspection of wheels and truing of wheels that are out of specifications to ensure that rough wheels do not lead to increased noise levels;</u> 2. <u>Rail grinding contract: A multi-year contract for rail grinding that includes annual grinding on an as-needed basis;</u> 3. <u>Grinding specification: All rail grinding shall</u>

		<p><u>comply with a specification that includes limits on surface roughness;</u></p> <p>4. <u>Verification measurements: Post-grinding measurements that verify that the rails meet the grinding specification. This step along with Step 3 shall be performed to provide RT with assurance that the grinding is performed correctly and to allow for competitive bidding;</u></p> <p>5. <u>Permanent monitoring and prioritization program: The permanent monitoring program shall be designed to determine when noise levels start to increase on a section of track and to prioritize the annual grinding. Once a baseline is established for each segment of track, track sections in need of grinding shall be prioritized in the grinding program;</u></p> <p>6. <u>Rail dampers: In addition to rail grinding, rail dampers may be utilized to achieve program objectives in noise-sensitive areas.</u></p> <p><u>These in-lieu measures shall be designed to achieve the FTA Moderate Impact criteria. If attenuation below these levels cannot be confirmed, then Sacramento Regional Transit shall implement the sound wall mitigation as specified in the Phase 2 SFEIS/SFEIR as designed to achieve the FTA Moderate Impact criteria. Confirmation that this alternative mitigation program is effective will be based on a preliminary monitoring effort. For a period of not less than two years, noise measurements shall be taken on a biannual basis at appropriate locations along the alignment. If the FTA Moderate Impact criteria are exceeded during two successive monitoring cycles, or if the program is otherwise demonstrated to be less than effective in meeting these criteria, then the sound wall mitigation specified in the Phase 2 SFEIS/SFEIR shall be implemented.</u></p>
Lead Agency	Sacramento Regional Transit District	
Implementing Agency		
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during the final design and construction phases of the project
	Complete:	Before initiation of LRT operations (measures N&V-1 through N&V-6); during LRT operations, not to exceed two years following initiation (measure N&V-7)

Date	Signature of Monitor	Action/Accomplishments

4.16 Safety and Security

<p>Description of Impact and Mitigation Measure 4.16.4</p>	<p>New rail stations would create activity centers and PNR lot traffic, with potential for safety and/or security incidents. Large parking areas would increase the risk of vandalism to vehicles. Circulation of autos and pedestrians in PNR lots would create potential for auto-pedestrian conflicts. The reduction of corridor auto traffic is expected to have a beneficial impact on motor vehicle accident rates and resulting injuries. The LPAP2 tracks and stations would be adjacent to an active freight railroad and would traverse high volume roadways that require crossings by pedestrians and vehicular traffic, increasing the potential for accidents. The alternative would not expose children to disproportionate environmental health or safety risk. At-grade rail crossings would be signalized and gated and would comply with Public Utilities Commission regulations.</p>	
	S-1	Work with emergency service providers to develop alternative sources and adjust service areas and destinations as necessary to maintain emergency service coverage and response times following implementation of the new LPAP2 service.
	S-2	Provide safety and security services by increasing contract security services and assigned law enforcement personnel.
	S-3	Expand fire safety and emergency response training to include five districts that will be responsible for providing these services.
	S-4	Invite public participation regarding station design details during the final design phase of the project to identify and address safety and security concerns.
<p>Lead Agency</p>	Sacramento Regional Transit District	
<p>Implementing Agency</p>	Sacramento Regional Transit District in cooperation with the Sacramento City Police Department and the Sacramento County Sheriff's Office	
<p>Monitoring Agency</p>	Sacramento Regional Transit District	
<p>Timing</p>	<p>Start:</p>	Before and during the final design and construction phases of the project
	<p>Complete:</p>	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

PROJECT CONSTRUCTION IMPACTS

This section contains mitigation measures to be implemented before, during and immediately following project construction. These measures generally require the construction manager to implement special procedures during construction. Compliance with these measures would result in minimizing, rectifying or reducing adverse environmental impacts.

5.2.1 Construction-Phase Impact on Aesthetics

Description of Impact and Mitigation Measure 5.2.1.2	Construction equipment would introduce a temporary visual change to the area, including stockpiling of soils and materials, use/staging of heavy equipment, and possible night-time lighting.	
	CA-1	RT will require the contractor to maintain the site in an orderly manner, removing trash, waste, and securing equipment and vehicles at the close of each day's operation.
	CA-2	To reduce glare from nighttime lighting, RT will require contractor to direct lighting onto the immediate construction area and away from residences and traffic lanes.
	CA-3	To reduce dust, the contractor would be required to use water trucks during grading to keep the ground moist.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	During construction phases of the project
	Complete:	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

5.2.3 Construction-Phase Impact on Air Quality

Description of Impact and Mitigation Measure 5.2.3.3	<p>Construction would generate short-term emissions of dust, fumes, equipment exhaust, pollutants and other air contaminants. PM10 would be the air pollutant of greatest concern. Construction impacts were evaluated based on a “worst-case” construction scenario in which track construction, station construction, grade separation, and bridge structure construction would occur concurrently, which is highly unlikely. Under this assumption, construction emissions are not anticipated to exceed the SMAQMD and federal thresholds. However, mitigation measures are recommended to reduce construction emissions.</p>	
	CAQ-1	Construction area and vicinity will be swept and watered at least twice daily.
	CAQ-2	Unpaved roads, parking and staging areas will be watered at least once every two hours of active operations.
	CAQ-3	Site access points will be swept/washed within 30 minutes of visible dirt deposition.
	CAQ-4	On-site stockpiles of debris or dirt will be enclosed, covered or watered at least twice daily.
	CAQ-5	All haul trucks hauling materials will be covered and will maintain at least two feet of freeboard.
	CAQ-6	Haul trucks will have the capacity of no less than 12.75 cubic yards.
	CAQ-7	At least 80 percent of inactive disturbed surface areas will be watered on a daily basis when there is evidence of wind-driven fugitive dust.
	CAQ-8	Operations on any unpaved surfaces will be suspended when winds exceed 25 mph.
	CAQ-9	Traffic speeds on unpaved roads will be limited to 15 miles per hour.
	CAQ-10	Operations on any unpaved surfaces will be suspended during first and second stage smog alerts.
	CAQ-11	Truck loading zones will be maintained in the construction area.
	CAQ-12	Temporary traffic control will be provided during all phases of construction activities to improve traffic flow.
	CAQ-13	Best efforts will be used to limit truck idling to no more than two minutes.
	CAQ-14	Non-toxic soil stabilizers (according to manufacturers’ specifications) will be applied to all inactive construction areas.
	CAQ-15	Submit to SMAQMD for approval a plan to achieve a project-wide fleet-average reduction of roughly 20% for NO _x and approximately 45% for PM ₁₀ (compared to the most recent CARB fleet average at time of construction).

	CAQ-16	Submit to SMAQMD an inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that would be used 40 or more hours during any part of construction phase.
	CAQ-17	Off-road diesel-powered equipment emissions will not exceed 40% opacity for more than three minutes in any one hour.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District and SMAQMD	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project

Date	Signature of Monitor	Action/Accomplishments

5.2.4 Construction-Phase Impacts on Biological Resources

<p>Description of Impact and Mitigation Measure 5.2.4.2</p>	<p>Approximately 0.15 acre of wetlands/waters would be temporarily disturbed at Morrison Creek and 0.05 acre of wetlands/waters at Morrison Creek/Union House Creek.</p> <p>Construction activities and related impacts may disturb vernal pool, riparian and non-native grassland natural communities that provide suitable habitat for up to 19 special-status species including four invertebrates, two reptiles and 13 bird species.</p> <p>There is no confirmed evidence that any or all of these species are present in the project area or would be present at the time of construction. All sensitive habitat and wetland areas would be identified for avoidance during project design.</p>	
	<p>CB-1</p>	<p>Include a copy of the Biological Opinion within solicitations for design and construction, making the primary contractor responsible for implementation.</p>
	<p>CB-2</p>	<p>Implement measures consistent with Best Management Practices (BMPs), including Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) to minimize effects to giant garter snake and prevent pollution of streams, waterways, and other bodies of water during construction, to prevent sedimentation from entering Environmentally Sensitive Areas (ESAs), and to reduce erosion, dust, noise, and other deleterious aspects of construction related activities. BMPs may include, but are not limited to, silt fencing, temporary berms, restrictions on cleaning equipment in or near ESAs, installation of vegetative strips, and temporary sediment disposal. Runoff from dust control and hazardous materials will be retained on the construction site and prevented from flowing into the ESAs.</p>
	<p>CB-3</p>	<p>Clearing and grubbing procedures that specify that only trees and plants designated for removal shall be removed.</p>
	<p>CB-4</p>	<p>Excavation techniques would ensure stability of subsurface materials as well as the retention of excavated materials within the construction areas.</p>
	<p>CB-5</p>	<p>Construction within wetlands would be avoided during the rainy season.</p>
	<p>CB-6</p>	<p>Materials and fluids generated by construction activities would be placed at least 100 feet from wetland areas or drainages until they could be disposed of at a permitted site.</p>
	<p>CB-7</p>	<p>Post-construction, remove all temporary fill/ debris. Restore disturbed areas to pre-project conditions, using native grass seed mixes.</p>

CB-8; CB-9	Install high visibility fencing around habitats of federally listed species to identify and protect designated ESAs.
CB-10	A qualified, USFWS-approved biological monitor shall be present during construction within suitable habitat. If a snake is encountered, all construction activities in the immediate area shall be halted until appropriate corrective measures are implemented.
CB-11	Implement a Worker Environmental Awareness Training Program for construction personnel to be conducted by the USFWS-approved biologist.
CB-12	The number and size of access roads and staging areas, and the total area of project activities will be restricted to the minimum necessary for the duration of construction activities.
CB-13	All food-related trash items must be disposed of in closed containers and removed at the end of each work day.
CB-14	A post-construction walkthrough will be conducted to assess whether any damage occurred to vegetation within buffer areas. Damage may include accidental cutting of vegetation or visible physical damage to roots, stems, and leaves. If damage is observed, vegetation within the buffer areas will be restored with appropriate native plant species.
CB-15	RT will maintain and monitor the project site for one (1) year following the completion of construction and restoration activities.
CB-16	Measures will be taken by the contractor to avoid the introduction of new noxious weeds and the spread of weeds previously documented at the project area.
CB-17	Where possible, protect by a 50-foot buffer zone (ESA) with exclusionary fencing habitat for vernal pool fairy shrimp, Midvalley fairy shrimp, vernal pool tadpole shrimp, and California linderiella.
CB-18	Prior to construction, RT shall conduct a survey to assess the status of existing elderberry shrubs within the project site.
CB-19	Construction shall be prohibited within 100 ft. of elderberry plants during beetle emergence and mating period.
CB-20	No application of herbicides, insecticides, and/or other chemical agents shall occur within 100 feet of elderberry plants or where they might drift or wash into the area of elderberry plants.
CB-21	Protective fencing shall be established around all shrubs that are not removed prior to initiating and construction activities on the site.
CB-22	Post-construction walkthrough will be conducted to assess whether any damage occurred to vegetation within the buffer areas.

CB-23	Pre-construction survey of all project affected aquatic no more than 24 hours prior to instream construction or disturbance of riparian vegetation. If western pond turtles are found, on-site monitoring and possible relocation shall be implemented.
CB-24	Construction in GGS habitat is preferably from May 1 to October 1. If between October 2 and April 30 USFWS may require additional measures.
CB-25	Where possible, giant garter snake habitat will be protected by a 200-foot buffer zone.
CB-26	Best management practices for water quality will be implemented during construction.
CB-27	Any dewatered GGS habitat shall remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling.
CB-28	Survey for GGS 24 hours prior to construction.
CB-29	Appropriate netting will be used for erosion control and other purposes to ensure that the giant garter snake does not get trapped or become entangled.
CB-30	A USFWS-approved biological monitor shall be present during construction within suitable habitat.
CB-31	Clearing will be confined to the minimal area necessary to facilitate construction activities.
CB-32	Following completion of construction, all temporary fill and construction debris will be removed from the project and disturbed areas will be restored to pre-project conditions.
CB-33	RT will compensate for project-related temporary impacts to giant garter snake habitat by purchasing the equivalent of 8.44 acres of giant garter snake habitat credits. All temporary effects will be compensated at a 1:1 ratio.
CB-34	If construction or tree removal will occur between February and August, preconstruction surveys for migratory bird, raptor, or special-status birds nests will be conducted within 0.25 mile of the project area.
CB-35	Surveys shall be conducted no more than 30 days prior to the initiation of construction activities.
CB-36	If active nests are found, consult with USFWS and CDFG to develop avoidance/ minimization measures.
CB-37	Raptor or migratory bird nest trees shall be removed outside of the nesting season (February through August), or after nest is empty and adult and young birds leave the tree.
CB-38	All natural communities and wetland areas outside the construction zone that could be affected will be temporarily fenced off using high visibility fencing and designated as ESAs.

	CB-39	Annual survey for Swainson's hawk nests from March-August 15. If nests are discovered, consult with CDFG.
	CB-40	In accordance with the Staff Report on Burrowing Owl Mitigation the following should be considered impacts; disturbance within 160 ft of an occupied burrow, destruction of occupied natural and artificial burrows, and destruction and/or degradation of foraging habitat adjacent (within 330 ft) of to an occupied burrow(s).
	CB-41	Pre-construction survey for western burrowing owls and burrows within 330 feet no more than two weeks before construction.
	CB-42	If active burrows are located, a no-disturbance buffer will be established around each active burrow. The size of the buffer will be determined through CDFG.
	CB-43	If adverse effects to occupied burrows are unavoidable, the owls shall be passively relocated using techniques approved by CDFG.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	California Department of Fish and Game, U.S. Fish and Wildlife Service and/or U.S. Army Corps of Engineers, as applicable	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project and for appropriate monitoring periods to determine the effectiveness and success of planting and habitat restoration.

Date	Signature of Monitor	Action/Accomplishments

5.2.5 Construction-Phase Cultural Resource Effects

Description of Impact and Mitigation Measure 5.2.5.1	Although not anticipated, construction activities could result in loss or degradation of previously undiscovered cultural resources.	
	CC-1	If cultural materials are unearthed during construction, work in the vicinity would be halted until a qualified archaeologist can assess their significance.
	CC-2	If unanticipated archaeological resources are encountered during construction, they would be addressed in consultation with OHP, in accordance with an archaeological treatment plan to be developed in consultation with OHP.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District, the cities and County	
Monitoring Agency	Sacramento Regional Transit District in coordination with the State Historic Preservation Officer	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project

Date	Signature of Monitor	Action/Accomplishments

5.2.7 Construction-Phase Geological and Soils and Seismicity Impacts

Description of Impact and Mitigation Measure 5.2.7.2	Weak and/or compressible soils or expansive soil can adversely affect the structures, pavements and slabs on grade. Shallow groundwater could affect earthwork and construction and the service of floor slabs and roadbed/hardscape subjected to traffic load. Soil erosion can damage existing structures and can discharge sediment to waterways. Additional loads on existing slopes could result in slope instability.	
	CG&S-1	Geotechnical studies in final design will incorporate requirements into the final design and construction requirements. Design requirements likely to be implemented include excavation and replacement (or treatment) of soil, use of synthetic material to reinforce weak soils and deep foundations, modification or re-grading of slopes, increased set-backs and clearance from slopes, vegetation of slopes, and lining of channels.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project

Date	Signature of Monitor	Action/Accomplishments

5.2.8 Construction-Phase Effects due to Hazardous Wastes

Description of Impact and Mitigation Measure 5.2.8.2		Previously unidentified contamination may be encountered.
	CHW-1	Walk-through site reconnaissance will be conducted for each of the site areas to identify any additional evidence of contamination.
	CHW-2	A review will be conducted of the remediation status of the sites listed in Table 4.8-1. If remediation activities will be complete before construction of the project, then no further mitigation will be necessary. If remediation would not be completed prior to project construction, then an alternate mitigation plan will be prepared and implemented.
	CHW-3	A site specific evaluation will be made of any known and suspected contaminated sites that would be distributed by construction operations before any soil is removed from affected areas for construction, using the following procedure: 1) implementation of a Worker Health and Safety Plan; 2) preparation of a site specific work plan specifying the proposed location for surface samples or soil borings or trenches; 3) soil boring or trenching and sample collection; 4) laboratory analysis of samples; and 5) preparation of a findings and recommendations report. If the site-specific evaluations determine that contaminants are present, RT will determine the type and extent of contamination and will prepare and implement a remediation plan to avoid risks to public health and safety.
	CHW-4	If the site-specific evaluations determine that contaminants are present, RT will determine the type and extent of contamination and will prepare and implement a remediation plan to avoid risks to public health and safety.
	CHW-5	RT will notify the State Department of Toxic Substances Control, Sacramento County Environmental Health Department and the local fire department of any contaminants encountered during construction.
Lead Agency		Sacramento Regional Transit District
Implementing Agency		Sacramento Regional Transit District
Monitoring Agency		Sacramento Regional Transit District in cooperation with State Department of Toxic Substances Control, Sacramento County Environmental Health Department
Timing		Start: Before and during project construction
		Complete: Upon completion of the construction phase of the project
Date	Signature of Monitor	Action/Accomplishments

5.2.9 Construction-Phase Impact on Hydrology, Floodplain and Water Quality

Description of Impact and Mitigation Measure 5.2.9.2	Construction activities would increase the sediment load in stormwater and disturb one or more acres of land. Modification of the berm of Franklin Station detention basin could result in the temporary loss of flood storage.	
	CHF&Q-1	The contractor will prepare a SWPPP identifying Best Management Practices to reduce water quality impacts.
	CHF&Q-2	RT will coordinate with SRCSD and the City of Sacramento regarding impacts to the detention basin and to maintain flood storage during construction.
	CHF&Q-3	If groundwater is encountered, dewatering will be conducted and contaminated effluent disposed of per applicable regulations.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District, the cities and County	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project

Date	Signature of Monitor	Action/Accomplishments

5.2.12 Construction-Phase Impact on Neighborhoods and Businesses

Description of Impact and Mitigation Measure 5.2.12.3	Construction traffic would temporarily affect study area neighborhoods due to street closures, rerouting of transit and vehicular traffic, and movements of construction equipment, materials and vehicles. There would be construction noise and vibration, air emissions, and visual changes. Impacts would be localized, temporary and intermittent; none would substantially affect neighborhoods or local businesses.	
	CN&B-1	RT practices for noise and vibration, air quality, transportation, and aesthetics are in the respective sections of Chapter 5. No further mitigation is indicated.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District, the cities and County	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project

Date	Signature of Monitor	Action/Accomplishments

5.2.13 Noise and Vibration during Construction

Description of Impact and Mitigation Measure 5.2.13.1	Temporary noise during construction of new tracks, stations, and traction power substations may adversely affect nearby residents. Most severe conditions would occur if construction were concurrent with that of the CRB Widening, CRB Extension and levee system improvement projects (by others).	
	CN&V-1	RT will include specific residential property line noise limits in the construction specifications for this project, and perform noise monitoring during construction to verify compliance with the limits.
	CN&V-2	Perform noise monitoring during construction to verify compliance with the limits.
	CN&V-3	Assure that a compliant resolution procedure is in place to rapidly address any problems that may develop.
	CN&V-4	Vibration impacts will be mitigated by including numeric limits in the construction specifications, monitoring vibration, and requiring the contractor to follow the specified limits.
	CN&V-5	<u>Prior to use of vibratory hammers, initial trenching shall be conducted to minimize vibration during the preliminary installation of sheet piling. Before initiating the pile driving, the contractor shall submit a vibration monitoring plan to the Resident Engineer and have the plan approved by the Resident Engineer. Monitoring shall occur on a continual basis during the use of vibratory hammer equipment whenever activities are occurring within 50 feet of the PG&E pipeline. If the monitoring determines that thresholds are likely to be exceeded, all vibration-producing operations must stop until it can be ensured that construction may commence without exceeding applicable safety standards. Monitoring results shall be recorded hourly in a log and be available at the work site for inspection by the Resident Engineer, project managers, construction supervisors, PG&E representatives, and other appropriate personnel.</u>
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during the final design and construction phases of the project
	Complete:	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

5.2.15 Construction Impacts on Public Services and Facilities

Description of Impact and Mitigation Measure 5.2.15.2	Construction could involve temporary detours or street closures but are expected to have little or no impact on access to local public services and facilities. Emergency vehicles would need to observe any short-term road closures and temporary construction detours.	
	CPS-1	RT will coordinate with local emergency service providers in developing detour plans.
	CPS-2	Emergency service providers would be provided advance notice of road closures and detour routes.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during the final design and construction phases of the project
	Complete:	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

5.2.16 Safety and Security during Construction

Description of Impact and Mitigation Measure 5.2.16.2	Construction activities could expose construction workers, local residents, and employees to potential safety hazards.	
	CS-1	RT will require the contractor submit a safety plan in advance of construction to ensure procedures for the safety of construction workers, local residents, and employees during construction of the LPAP2 Alternative.
	CS-2	Fencing and lighting of construction and staging areas, and recognized safety practice requirements for the utilization of heavy equipment and the movement of construction materials would be implemented to contain construction activities and avoid accidents.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during the final design and construction phases of the project
	Complete:	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

5.2.17 Traffic and Transportation during Construction

<p>Description of Impact and Mitigation Measure 5.2.17.2, 5.2.17.5 & 5.2.17.8</p>	<p>- <u>Rail Services</u>: Construction of the connections of existing LRT tracks with new LPAP2 tracks could affect on-going revenue service. To avoid disruption of current LRT operations, construction of these connections will be scheduled during non-revenue hours.</p> <p>- <u>Bus Services</u>: Construction of grade crossings would involve closure of cross streets for 24 to 48 hours at a time, temporarily rerouting some bus routes.</p> <p>- <u>Vehicular Traffic</u>: Traffic could be disrupted by construction equipment and traffic. Construction of LPAP2 improvements would require street closures for 24 to 48 hours at several locations and rerouting of vehicular traffic.</p>	
	CT-1	Coordinate construction with other major work in the vicinity.
	CT-2	Grade-crossing construction that requires street closure will be scheduled so only one crossing in an area is affected at one time
	CT-3; CT-8	Provide the public and transit users advance notice of proposed transit reroutes and any other changes in stops and service.
	CT-4	Construction of at-grade crossings will take place during non-peak periods whenever possible, including at night and at normal work hours in residential areas.
	CT-5	RT will notify local residents and businesses in advance of proposed construction activity.
	CT-6	RT will communicate and coordinate with the CRC and Los Rios Community College District regarding the time of any street closures during construction of the LPAP2, with particular attention to peak student travel periods.
	CT-7	Contractors will be required to prepare and implement traffic handling plans approved by the cities of Sacramento and Elk Grove or Sacramento County.
	CT-9	Construction contracts will include provisions to avoid parking impacts to residential areas or businesses requiring on-street parking.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during the final design and construction phases of the project
	Complete:	Before initiation of LRT operations

Date	Signature of Monitor	Action/Accomplishments

5.2.18 Construction-Phase Effects on Utilities

Description of Impact and Mitigation Measure 5.2.18.2	Construction activities may encounter unexpected utilities within the project right-of-way. Relocations of affected utilities will be the responsibility of RT and may require short-term, limited interruptions of service.	
	CU-1	RT will continue close coordination with all utility providers during construction to identify any potential conflicts and formulate strategies to overcome potential problems.
	CU-2	A set of detailed plans will be submitted to utility providers for their review and comment prior to the onset of any relocation work.
	CU-3	Schedule any service interruptions in advance and ensure appropriate notification to users.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District, in coordination with MCU, US Sprint, Pacific Bell, SMUD, AT&T, PG&E, SCRSD, Sacramento Cable, the cities and UPRR	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project

Date	Signature of Monitor	Action/Accomplishments

5.2.19.1

Cumulative Construction-Phase Impacts

Description of Impact and Mitigation Measure 5.2.19.2	In the event that construction of any or all of the related projects occurs simultaneously with the construction of the TSM or LPAP2 Alternative of the South Sacramento Corridor Phase 2 project, cumulative construction phase impacts could result	
	CC-P1	Develop traffic handling plans to minimize impacts to the traveling public.
	CC-P2	Develop traffic handling plans and detour routes in coordination with emergency service providers to prevent adverse impacts to emergency service delivery.
	CC-P3	Coordinate with other project proponents, as necessary, in the development of public information messages regarding the timing and location of construction activities, temporary detours, and specific measures to be undertaken to reduce construction impacts.
	CC-P4	Continue to coordinate with all utility providers during the construction stages of the project to identify any potential conflicts and formulate strategies to overcome potential problems.
Lead Agency	Sacramento Regional Transit District	
Implementing Agency	Sacramento Regional Transit District,	
Monitoring Agency	Sacramento Regional Transit District	
Timing	Start:	Before and during project construction
	Complete:	Upon completion of the construction phase of the project

Date	Signature of Monitor	Action/Accomplishments