

**Meeting of the Central Valley Flood Protection Board  
February 25, 2011**

**Staff Report  
Sacramento Municipal Utility District (SMUD) Overhead Electric Relocation  
City of Sacramento, CA**

---

**1.0 – ITEM**

Consider approval of Permit No. 18644 (Attachment B).

**2.0 – APPLICANT**

Sacramento Municipal Utility District (SMUD)

**3.0 – LOCATION**

The project is located at Arcade Creek and Norwood Avenue, in Sacramento California. (Arcade Creek, Sacramento County, see Attachment C).

**4.0 – DESCRIPTION**

The proposed project consists of installing three new utility poles, removing two existing poles, authorizing four existing poles and run a utility line above the left (south) bank levee and above the right (north) bank levee replacing the existing overhead electric lines and poles that span Arcade creek. The existing poles are east and west of the existing Norwood Avenue Bridge. The proposed overhead electric lines and poles would span Arcade creek. See Attachment-H, Utility Pole Specifics.

**5.0 – BACKGROUND**

In 1998, due to SAFCA's work raising and rebuilding levees as part of the North Local Project, FEMA certified northern Sacramento's flood protection as being able to withstand a 100-year flood.

The Norwood Avenue Bridge was built in 1956, and was recently widened to provide a full width sidewalk on the west side of Norwood Avenue. The existing utility poles were placed sometime before 1995 when SAFCA (Sacramento Area Flood Control Agency) performed a levee raising contract under Reclamation Board Permit #16032 and 16042. Within that permit, SAFCA constructed an access ramp from Norwood Avenue on the south levee to the east. According to Board records, there was no mention of the utility poles that were existing at that time.

On February 3, 2011, the Central Valley Flood Protection Board (CVFPB) Executive Officer signed a Board approved permit to remove and replace the Norwood Avenue Bridge under Board Permit # 18617.

### **5.1 – PROJECT ANALYSIS**

The City of Sacramento plans to replace the existing Norwood Avenue Bridge crossing of Arcade Creek and construct minor approach roadway improvements between Lindley Drive and Fairbanks Avenue on Norwood Avenue. The purpose of the project is to provide a higher and wider bridge that addresses the flood design needs and required bike lanes. The proposed bridge will be raised to reduce flood-related closures, lessen stream flow obstructions, and improve emergency vehicle access during the high water events.

SMUD owns and maintains overhead electrical facilities within the limits of City's project that requires relocation of its facilities to accommodate the project. SMUD proposes to relocate its facilities from the west to the east side of Norwood Avenue between Lindley Drive and Fairbanks Avenue.

The proposed utility poles adjacent to left (south) bank levee of arcade creek would be placed approximately 55 and 20 feet from the landside toe. The proposed utility pole adjacent to the right (north) bank levee of Arcade Creek would be place one pole approximately 37 feet from the landside toe. The overhead utility lines would run above the levee crown and provide a minimum clearance of 21 feet between the levee crown and the overhead wire crossing. Power cables over 750 volts will have a minimum clearance of 25 feet. The holes left by the removal of existing utility poles will be backfilled in 4 to 6-inch layers and compacted to a density equal to that of the adjacent undisturbed material.

Construction will occur between April 1st and June 15th. Work within 15' of the landside levee toes will not occur until April 15th.

The SMUD will restore all levee slopes and roadways to pre-project condition and follow all standards and guidelines as applicable, in Title 23 of the California Water Code for construction activities on levees and within the floodway. The relevant Title 23 sections are:

- 112. Streams Regulated and No permissible Work Periods
- 115. Dredged Spoil, and Waste Material
- 116. Borrow and Excavated Activities – Land and Channel
- 120. Levees
- 121. Erosion Control
- 123. Pipelines, Conduits, and Utility Lines

The 3 proposed poles will be placed according to Title 23 and are within the Board's jurisdiction between 10 feet on either side of the landside levee toes (north to south) and bounded by the projects construction easement on the east and west. Within that

jurisdictional area, there will be 2 poles removed and 4 existing poles which will be permitted by this permit. All three of the existing poles and three of the proposed poles meet set-back requirements of Title 23. The fourth existing Pole #20 on the south east side of the project is 15 feet from the initial levee prism. However, with the construction of an access ramp in 1995, the extended access ramp toe is within several feet of Pole#20. See Attachment-I, Utility Pole Location, aerial.

Title 23, Article 6, Section 108(a)(2) states:

“Nonconforming existing encroachments that do not have a major detrimental impact shall be allowed to continue under a permit or order until abandoned or until destroyed or damaged, by any cause, to the cumulative extent of more than fifty (50) percent of their market value or their physical usefulness during any 10-year period. The facility or use may not be changed, extended, or expanded without a new application to and approval of the board.”

Therefore, staff believes that there is no detrimental impact to the flood control structure and that the introduction of the access ramp in 1995 provides flood control emergency access for flood fighting.

## **5.2 – Hydraulic Analysis**

The utility poles do not affect the channel hydraulics.

## **5.3– Geotechnical Summary**

The utility poles do not affect the either the levee prism nor the surrounding soils.

## **5.4 – Staff Comments**

The City was successful in obtaining Federal Highway Bridge Replacement and Rehabilitation (HBRR) Program funds to replace the existing bridge. Under this program, the federal government will pay 88.53% of the cost of the project, while the City of Sacramento will pay 11.47% of the remaining cost.

Prior to the start of construction for the bridge project, SMUD’s overhead electric facilities must be relocated. In addition to SMUD’s overhead facilities, Comcast and AT&T will be relocating their existing lines which utilize the SMUD poles.

Construction for the bridge will be conducted in two stages in order to maintain traffic flow along Norwood Avenue. The first stage will include construction of a temporary pedestrian bridge east of the existing bridge, removal of a portion of the existing bridge and construction of the new bridge west of the existing structure. Once the temporary pedestrian bridge is in place, pedestrian access will be limited to the existing sidewalks on the east side of Norwood Avenue. Removal of a portion of the existing bridge will begin by removing the existing sidewalks and shifting the existing through lanes to the east. The proposed bridge would then be completed. The second stage includes removal of the existing bridge, and construction of the remaining portion of the roadway approaches.

Construction of the new bridge will require the use of temporary trestles (*a framework of vertical slanting uprights and cross pieces, supporting a bridge*) placed upstream and downstream to provide a stable platform from which to install the new bridge piles. The temporary trestles will be built wide enough to accommodate heavy construction equipment; a minimum working deck width of 36 feet is planned. The trestles will be built out from the approaches on driven steel pile supports. The span lengths for a trestle are typically 20 – 30 feet, and will require four or five piles per support. The piles will be about 18 inches in the greatest dimension and will be either HP pile shapes (*a bearing pile shape having parallel flange surfaces and equal web and flange thickness*) or steel pipe piles depending on the construction contractor who is awarded the project. The trestle piles will be installed with diesel pile-driving hammers.

Construction of the proposed bridge is anticipated to start this summer 2011 and be completed by the end of the year.

### **6.0 – AGENCY COMMENTS AND ENDORSEMENTS:**

The comments and endorsements associated with this project, from all pertinent agencies are shown below:

- The U.S. Army Corps of Engineers 208.10 comment letter has not yet been received for this application. Upon receipt of a favorable letter and review by Board staff it will be incorporated into the permit as Exhibit A.
- Sacramento City Council consent for the project dated March 23, 2010 (Exhibit B).
- American River Flood Control permit conditions and recommendation (Exhibit C).

### **6.1 – Owners of the property on which the project is located**

- City of Sacramento
- Sacramento Housing and Redevelopment Agency (SHRA)
- Sacramento Area Flood Control agency (SAFCA)
- Sacramento-San Joaquin Drainage District (SSJDD)
- American River Flood Control District (ARFCD)

### **7.0 – PROPOSED CEQA FINDINGS:**

Board staff has prepared the following CEQA Findings:

The Board, acting as a responsible agency under CEQA, has independently reviewed the Initial Study/Mitigated Negative Declaration (IS/MND, January 2010), Mitigation Reporting Plan, and the Sacramento City Council Resolution 2010-173 for the Norwood Avenue Bridge Replacement Project (SCH No. 2010022016) prepared by the lead agency, the City of Sacramento. These documents, including the project design, may be



viewed or downloaded from the Central Valley Flood Protection Board website at <http://www.cvfpb.ca.gov/meetings/2011/2-25-2011.cfm> under a link for this agenda item.

The City of Sacramento determined that the project would not have a significant effect on the environment and adopted the Mitigated Negative Declaration at the City of Sacramento Council Meeting on April 1, 2010. Subsequently, the City of Sacramento filed a Notice of Determination with the State Clearinghouse and Sacramento County Clerk on April 7, 2010. Board staff finds that although the proposed project could have a potentially significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. The project proponent has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant impacts will occur. These mitigation measures are included in the project proponent's Mitigation Reporting Plan and address impacts to biological resources, cultural resources, hazards and hazardous materials, and transportation. The description of the mitigation measures are further described in the adopted Mitigation Reporting Plan.

### **8.0 – SECTION 8610.5 CONSIDERATIONS**

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science that related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this permit.

3. Effects of the decision on the entire State Plan of Flood Control:

This project has no negative impacts on the State Plan of Flood Control. Both hydraulic and structural impacts from the project construction are negligible.

4. Effects of reasonable projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

Climate change issues have not been taken into account in the hydraulic analysis for this project; however, it is assumed to be inland past the point tidal influence raises

in WSE, and due to the excessive amount of freeboard in the channel at this location, the project would have an ample factor of safety built into it. Climate change WSE raises are only estimated from 6-inches to 1-foot of impact and would be well within the freeboard of this project in the event that tidal influences did reach further inland than expected. There are no other foreseeable projected future events that would impact this project.

## **9.0 – STAFF RECOMMENDATION**

Staff recommends that the Board adopt the CEQA findings, approve Permit No. 18644 conditioned upon receipt of a USACE 208.10 letter of determination confirming the Corps has no objection to the project, and an order to direct the Executive Officer to take necessary actions to prepare the permit and to file a Notice of Determination with the State Clearinghouse.

## **10.0 – LIST OF ATTACHMENTS**

- A. Resolution No. (None required under consent items)
- B. Draft Permit No. 18644
  - Exhibit A – U.S. Army Corps of Engineers 208.10 Comment Letter
  - Exhibit B – Sacramento City Council Approval
    - 1. Report to City Council
    - 2. City Resolution
  - Exhibit C – American River Flood Control District Permit Conditions
- C. Location Maps
- D. Norwood Avenue Bridge Replacement cover sheet and table of contents (2 pages)
- E. Construction Drawings L-1, L-2, & P-1
- F. Plan and Elevation Exhibits, Ex1 thru 3
- G. Photos; Sheets 1 thru 4
- H. Utility Pole Specifics
- I. Utility Pole Location, Aerial
- J. Typical Jurisdictional Cross Section
- K. SMUD Poles Setting Depth

Report Completed by:	David R. Williams, P.E.
Design Review:	David R. Williams, P.E.
Document Review:	Dan S. Fua, P.E. – Supervising Engineer

Len Marino, P.E. – Chief Engineer

**DRAFT**

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
**THE CENTRAL VALLEY FLOOD PROTECTION BOARD**

**PERMIT NO. 18644 BD**

**This Permit is issued to:**

SMUD  
6201 S Street - B304  
Sacramento, California 95817

To install three new utility poles, remove two existing poles, authorize four existing poles, and run a utility line above the left (south) bank levee and above the right (north) bank levee, replacing the existing overhead electric lines and poles that span Arcade creek. The existing poles are east and west of the existing Norwood Avenue Bridge. The proposed overhead electric lines and poles would span Arcade creek. The project is located in North Sacramento along Norwood Avenue (Section 17&20, T9N, R5E, MDB&M, American River Flood Control District, Arcade Creek, Sacramento County).

**NOTE:** Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

**(SEAL)**

Dated: \_\_\_\_\_

\_\_\_\_\_  
Executive Officer

**GENERAL CONDITIONS:**

**ONE:** This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

**TWO:** Only work described in the subject application is authorized hereby.

**THREE:** This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

**FOUR:** The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

**FIVE:** Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to

change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

**SIX:** This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

**SEVEN:** It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

**EIGHT:** This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

**NINE:** The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

**TEN:** The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

**ELEVEN:** The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

**TWELVE:** Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

**SPECIAL CONDITIONS FOR PERMIT NO. 18644 BD**

**THIRTEEN:** All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of The Central Valley Flood Protection Board.

**FOURTEEN:** Prior to commencement of work, the permittee shall create a photo record, including associated descriptions, of the project conditions. The photo record shall be certified (signed and stamped) by a licensed land surveyor or professional engineer registered in the State of California and submitted to the Central Valley Flood Protection Board within 30 days of beginning the project.

**FIFTEEN:** The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

**SIXTEEN:** The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion



SEVENTEEN: No construction work of any kind shall be done during the flood season from November 1st to April 15th without prior approval of The Central Valley Flood Protection Board.

EIGHTEEN: A minimum clearance of 21 feet shall be provided between the levee crown and the overhead wire crossing. Power cables over 750 volts shall have a minimum clearance of 25 feet.

NINETEEN: The permittee agrees to incur all costs for compliance with local, State, and Federal permitting and resolve conflicts between any of the terms and conditions that agencies might impose under the laws and regulations it administers and enforces.

TWENTY: The Central Valley Flood Protection Board, Department of Water Resources, and the American River Flood Control District shall not be held liable for damages to the permitted encroachment(s) resulting from releases of water from reservoirs, flood fight, operation, maintenance, inspection, or emergency repair.

TWENTY-ONE: The permittee shall be responsible for repair of any damages to the project levee and other flood control facilities due to construction, operation, or maintenance of the proposed project.

TWENTY-TWO: Except with respect to the activities expressly allowed under this permit, the work area shall be restored to the condition that existed prior to start of work.

TWENTY-THREE: Temporary staging, formwork, stockpiled material, equipment, and temporary buildings shall not remain in the floodway during the flood season from November 1 to April 15.

TWENTY-FOUR: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

TWENTY-FIVE: The permitted encroachment(s) shall not interfere with operation and maintenance of the flood control project. If the permitted encroachment(s) are determined by any agency responsible for operation or maintenance of the flood control project to interfere, the permittee shall be required, at permittee's cost and expense, to modify or remove the permitted encroachment(s) under direction of the Central Valley Flood Protection Board or Department of Water Resources. If the permittee does not comply, the Central Valley Flood Protection Board may modify or remove the encroachment(s) at the permittee's expense.

TWENTY-SIX: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's or successor's cost and expense.

TWENTY-SEVEN: The permittee shall submit as-built drawings to the Department of Water Resources' Flood Project Inspection Section, located at 3310 El Camino Ave, Room 256, Sacramento, California, 95821, upon completion of the project.

TWENTY-EIGHT: A cleared area shall be maintained around the power pole(s) so as not to interfere

with maintenance of the levee

TWENTY-NINE: All debris generated by this project shall be disposed of outside the flood control project works.

THIRTY: All debris that may accumulate around the poles and guy wires within the floodway shall be completely removed from the floodway following each flood season.

THIRTY-ONE: The permittee shall contact the Department of Water Resources by telephone, (916) 574-0609, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

THIRTY-TWO: The permittee should contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

THIRTY-THREE: This permit is not valid until the Central Valley Flood Protection Board has received written notification from the U.S. Army Corps of Engineers (Corps) that the Corps has no opposition to this project. The permittee shall comply with all conditions set forth in the letter from the Corps once it is received, which shall be attached to this permit as Attachment B and incorporated by reference.

THIRTY-FOUR: The permittee shall comply with all conditions set forth in the Sacramento City Council Approval dated March 23, 2010, which is attached to this permit as Exhibit B and is incorporated by reference.

THIRTY-FIVE: The permittee shall comply with all conditions set forth in the project endorsement from the American River Flood Control District dated October 15, 2010, which is attached to this permit as Exhibit C and is incorporated by reference.

THIRTY-SIX: This permit shall run with the land and all conditions are binding on permittee's successors and assigns.

U.S. ARMY CORPS OF ENGINEERS 208.10

COMMENT LETTER.

Not received yet



# REPORT TO COUNCIL City of Sacramento

915 I Street, Sacramento, CA 95814-2604  
www.CityofSacramento.org

13



CONSENT  
March 23, 2010

Honorable Mayor and  
Members of the City Council

**Title:** Norwood Avenue Bridge Replacement Project (T15068400)

**Location/Council District:** Norwood Avenue Bridge at Arcade Creek between Fairbanks Avenue and Lindley Avenue. Location map – Exhibit A of Resolution. (District 2)

**Recommendation:** Adopt a **Resolution:** 1) approving the conceptual design plans, and 2) approving the Mitigated Negative Declaration and the Mitigation Reporting Plan for the project.

**Contact:** Ricky Chuck, Senior Engineer, (916) 808-5050; Tim Mar, Supervising Engineer, (916) 808-7531

**Presenters:** None

**Department:** Transportation

**Division:** Engineering Services

**Organization No:** 15001131

## Description/Analysis

**Issue:** The project will replace the structurally deficient Norwood Avenue Bridge over Arcade Creek with a new bridge that meets current standards. The project will construct a new and higher concrete bridge with two travel lanes, bike lanes, sidewalks, and street lighting.

Approval of the conceptual design plans and adoption of the Mitigated Negative Declaration and Mitigation Reporting Plan are necessary to move forward with completing the final design and comply with the California Environmental Quality Act.

**Policy Considerations:** This action requested herein is consistent with the Sacramento City Code, Title 3 and with the City of Sacramento Strategic Plan goals of improving and expanding public safety and enhancing livability.

**Environmental Considerations:**

**California Environmental Quality Act (CEQA):** The Community Development Department, Environmental Planning Services has prepared an Initial Study and Mitigated Negative Declaration for the proposed project. City Council approved the 2030 General Plan and certified the Master Environmental Impact Report (Master EIR) on March 3, 2009. The project was included in the Master EIR, and the Initial Study prepared for the project examines the project for the purpose of identifying any additional significant environmental effects, or project-specific effects, that could occur with the project and that were not examined in the Master EIR.

The project-specific effects that the City has identified that were not covered in the Master EIR include transportation and circulation, biological resources, hazards, and cultural resources. In compliance with Section 15070(B) 1 of the California Environmental Quality Act (CEQA) Guidelines, the City has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where clearly no significant impacts will occur.

The Mitigated Negative Declaration was distributed through the State Clearinghouse (SCH# 2010022016) and was available for public review during the period of February 4, 2010 through March 8, 2010. As of the writing of this report, one comment letter regarding the project has been received. The comment letter, from the Sacramento Area Bicycle Advocates (SABA), is attached to this staff report. SABA comments on the importance of planning for the Arcade Creek bike path and consideration of general plan policies. The project will accommodate future bike path improvements when planning and financing arrangements are in place, and the letter therefore identifies no new impacts. Staff has contacted SABA to discuss the comment.

The project is funded by Federal Highway Bridge Replacement and Rehabilitation (HBRR) Program funds. As a result, the proposed project is also subject to the National Environmental Policy Act (NEPA). NEPA studies are currently under review with the State Department of Transportation and the Federal Highway Administration. These agencies will take their respective actions.

**Sustainability Considerations:** This project is consistent with the City's Sustainability Master Plan. It conforms to the Air Quality Focus Area by improving and optimizing transportation infrastructure.

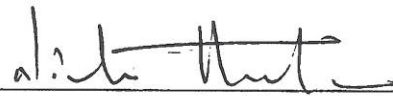
**Other:** None

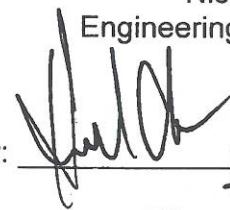
**Commission/Committee Action:** None

**Rationale for Recommendation:** Approval of the conceptual design plans and adoption of the Mitigated Negative Declaration and Mitigation Reporting Plan are necessary to move forward with completing the final design and comply with the California Environmental Quality Act.

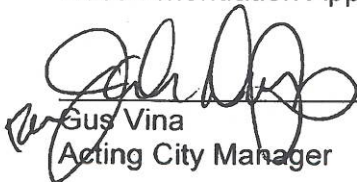
**Financial Considerations:** The current project budget is \$1,292,359. The budget is comprised of \$230,000 in Major Street Construction Tax (Fund 2007) and \$1,062,359 in Federal Capital Grant (Fund 3703) funds. As of February 18, 2010, the project has an unobligated balance of \$244,097, which is sufficient to complete the design. There are no General Funds planned or allocated to this project.

**Emerging Small Business Development (ESBD):** No goods or services are being procured at this time.

Respectfully Submitted by:   
Nicholas Theocharides  
Engineering Services Manager

Approved by:   
for Jerry Way  
Director of Transportation

Recommendation Approved:

  
Gus Vina  
Acting City Manager

**Table of Contents:**

Report	Pg. 1
<b>Attachments</b>	
1 Background	Pg. 4
2 MND Comment Letters and City Responses	Pg. 5
3 Resolution	Pg. 9
Exhibit A – Location Map	Pg. 11
Exhibit B – Conceptual Design Plan	Pg. 12
Exhibit C – Mitigated Negative Declaration	
Exhibit D – Mitigation Monitoring Plan	



Norwood Avenue Bridge Replacement Project

March 23, 2010

**Attachment 3**

**RESOLUTION NO.**

Adopted by the Sacramento City Council

**APPROVING CONCEPTUAL DESIGN PLAN AND ADOPTING MITIGATED  
NEGATIVE DECLARATION AND MITIGATION REPORTING PLAN FOR THE  
NORWOOD AVENUE BRIDGE REPLACEMENT PROJECT (T15068400)**

**BACKGROUND**

- A. The project will replace the structurally deficient Norwood Avenue Bridge over Arcade Creek with a new bridge that meets current standards. The project will construct a new and higher concrete bridge with two travel lanes, bike lanes, sidewalks, and street lighting and a new approach roadway between the intersections of Fairbanks Avenue and Lindley Way. Retaining walls will be constructed on both approaches in order to support the increase in profile grade. The bridge was constructed in 1945 and is rated structurally deficient. Arcade Creek has a history of elevated water levels that inundate the bridge. During high canal flows, Norwood Avenue had to be closed by using stop log floodwalls. This project will eliminate the need for road closure during high canal flows.
- B. The City of Sacramento has prepared an Initial Study and Mitigated Negative Declaration for this project.
- C. The Initial Study and Mitigated Negative Declaration have been circulated for public review and comment from February 4, 2010 through March 8, 2010 pursuant to the California Environmental Quality Act (CEQA).
- D. On the basis of the whole record before it, including the Initial Study and all comments received, the City has determined that there is no substantial evidence that the project, with mitigation measures as identified in the Initial Study, will have a significant effect on the environment.
- E. The Mitigated Negative Declaration reflects the City's independent judgment and analysis.
- F. In accordance with Section 21081.6 of the California Public Resources Code, the City of Sacramento requires that a Mitigation Reporting Plan be developed for implementing mitigation measures as identified in the Initial Study for the project.
- G. The Environmental Manager has prepared a Mitigation Reporting Plan for ensuring compliance and implementation of the mitigation measures as prescribed in the Initial Study for the project.

- H. The record of proceedings upon which this decision is based is on file on the Office of the City Clerk.

**BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:**

- Section 1. The conceptual design plan for the project is approved.
- Section 2. The Mitigated Negative Declaration and Mitigation Reporting Plan for the Norwood Avenue Bridge Replacement Project (T15068400) are adopted.
- Section 3. Exhibits A through D are incorporated into and made part of this resolution.

**Table of Contents:**

- Exhibit A: Map of Norwood Avenue Camino Bridge Replacement  
Exhibit B: Conceptual Design Plan  
Exhibit C: Mitigation Negative Declaration  
Exhibit D: Mitigation Reporting Plan



Karolyn W. Simon  
Brian F. Holloway  
Bettina C. Redway  
Virginia G. Moose  
Derek W. Minnema

General Maintenance Engineer  
Timothy R. Kerr, P.E.

APPROVED OCT 15 2010

## Permit Conditions

Permit Application No.: (to be designated by the Central Valley Flood Protection Board)

Location: Arcade Creek Levees at Norwood Avenue

Applicant: SMUD

Description: Relocate SMUD power poles to a distance at least 15-feet from the levee toe. Vertical clearance of overhead lines shall be at least 25-feet above the levee crown.

### CONDITIONS:

1. Maintenance of all encroaching facilities under this permit shall remain the responsibility of permittee.
2. Permittee shall obtain all necessary permits and regulatory approvals for the proposed work.
3. Permittee may be required, at permittee's sole cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted work if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if encroaching facilities are damaged by any cause.
4. Work shall be done outside of the flood season of November 1 to April 15 unless otherwise approved by the District and Central Valley Flood Protection Board.
5. Permittee shall notify the District one week in advance of the start of construction.
6. Permittee shall allow access of ARFCD levee maintenance personnel and equipment during the construction period.
7. That temporary staging, material stockpiles, and equipment shall not be placed or allowed to remain in the floodway during the flood season from November 1 to April 15.
8. Roadway drainage shall not be directed to flow water on the levee section without adequate protection from erosion.

voice 916-929-4006 fax 916-929-4160

165 Commerce Circle, Suite D,  
Sacramento, California 95815

7 APPROVED OCT 15 2010



9. The District reserves the right to review all final plans and specifications and request modifications to the project during construction as field conditions warrant.
10. Permittee may not use the levee crown for staging construction or storing materials without specific approval by the District. If approved by the District, the levee crown shall be fully restored to its pre-project condition to the satisfaction of the District. In addition, if adverse weather conditions are forecast or other emergency condition arises, the Permittee shall immediately remove any equipment or materials stored on the levee and restore the levee surface for all-weather access to the satisfaction of the District.
11. In the event that erosion occurs at the project site, the applicant shall repair the eroded areas and place adequate Best Management Practice features on the levee sections to prevent further erosion.
12. Levee sections, overflow areas, and channel shall be restored to at least the same condition that existed prior to construction.

**APPROVED OCT 15 2010**



Vicinity Map  
Scale: 1" = 200'



**CITY OF SACRAMENTO**

**IMPROVEMENT PLANS FOR  
NORWOOD AVENUE BRIDGE REPLACEMENT**



**LEGEND**

EXISTING	PROPOSED
DROP INLET	MAINTENANCE HOLE
SANITARY SEWER	STORM DRAIN
GATE VALVE	WATER MAIN
WATER METER	CURB, GUTTER & SDWK
CENTER LINE	RIGHT-OF-WAY
TREE	BUSH
STREET LIGHT	POWER POLE
PULL BOX	ELEVATION
CHAIN LINK FENCE	WOOD FENCE
MAIL BOX	CUTLINE
DRWY TRANSITION	DITCH CULVERT
CURB RAMP	

**APPROVED BY:**

RICKY CHUCK, R.C.E. 61443 SENIOR ENGINEER	DATE
BILL BUSATH, R.C.E. 52118 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, DRAINAGE	DATE

**APPROVED BY:**

HECTOR BARRON, P.E., T.E. CITY TRAFFIC ENGINEER SIGNING & STRIPING	DATE
DAN SHERRY, R.C.E. 53638 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, WATER	DATE

**ACCEPTED BY:**

SOMPOL CHATUSRIPITAK, R.E. 13633 SENIOR ELECTRICAL ENGINEER	DATE
RICHARD S. BATHA, R.C.E. 36129 SUPERVISOR ENGINEER DEPARTMENT OF UTILITIES, SEWER	DATE

**INDEX OF SHEETS**

1	TITLE SHEET
2	ABBREVIATIONS AND GENERAL NOTES
3 TO 6	TYPICAL CROSS SECTIONS
7 TO 8	PROJECT CONTROL
9 TO 11	LAYOUT
12 TO 13	PROFILE
14 TO 25	CONSTRUCTION DETAILS
26 TO 27	REGULATED PLAN
28 TO 29	EROSION CONTROL PLAN & QUANTITIES
30 TO 34	CONTOUR GRADING AND SLOPE PROTECTION
35 TO 40	DRAINAGE PLAN, PROFILE, DETAILS, & QUANTITIES
41 TO 43	WATER PLAN, DETAILS, & QUANTITIES
44 TO 46	UTILITY PLAN, DETAILS & QUANTITIES
47	CONSTRUCTION AREA SIGNS
48 TO 50	STAGE CONSTRUCTION
51 TO 72	TRAFFIC HANDLING PLAN & QUANTITIES
73 TO 75	SIGNING AND STRIPING PLAN & QUANTITIES
76 TO 77	SUMMARY OF QUANTITIES
78 TO 85	RETAINING WALL LAYOUT & DETAIL
86 TO 87	CONCRETE CURB LAYOUT & DETAIL
88 TO 92	PLANTING & IRRIGATION PLANS, NOTES, & DETAILS
93 TO 97	ELECTRICAL PLANS
98 TO 101	STRUCTURE PLANS

**APPROVED BY:**

RICKY CHUCK, R.C.E. 61443 SENIOR ENGINEER	DATE
BILL BUSATH, R.C.E. 52118 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, DRAINAGE	DATE

**APPROVED BY:**

HECTOR BARRON, P.E., T.E. CITY TRAFFIC ENGINEER SIGNING & STRIPING	DATE
DAN SHERRY, R.C.E. 53638 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, WATER	DATE

**ACCEPTED BY:**

SOMPOL CHATUSRIPITAK, R.E. 13633 SENIOR ELECTRICAL ENGINEER	DATE
RICHARD S. BATHA, R.C.E. 36129 SUPERVISOR ENGINEER DEPARTMENT OF UTILITIES, SEWER	DATE

**STANDARD ABBREVIATIONS**

AC	AGGREGATE BASE
AC	ASPHALT CONCRETE
AP or C	ANGLE POINT
AVE.	AVENUE
BLDG	BUILDING
BOC	BACK OF CURB
BOW	BACK OF WALK
CAB	CABINET
CCSS	CURB AND GUTTER
CL or C	CURB CUTTER AND SIDEWALK
CH	CENTER LINE
CH	CHORD
CO	CLEANOUT
CONC.	CONCRETE
CONST.	CONSTRUCT
CTV	CABLE TV
C/S or C.R.	CURB RETURN
CSMH	COMBINATION SEWER MH
D.B.	DITCH BOX
D1 or D.I.	DITCH INLET
DRWY	DRIVEWAY
DWG	DRAWING
E or ELECT.	ELECTRICAL
EL. or ELEV.	ELEVATION
EX	EXISTING PAVEMENT
EX or EXIST.	EXISTING
FH	FIRE HYDRANT
FL or E	FLOW LINE
FM	FORCE MAIN
FOC	FACE OF CURB
FOW	FACE OF WALK
G	GAS

**SEE SHEET A-1 FOR ADDITIONAL ABBREVIATIONS AND GENERAL NOTES**

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**INDEX OF SHEETS**

102 TO 125	NORWOOD AVENUE BRIDGE, BR No.
------------	-------------------------------

**STRUCTURE PLANS**



**END CONSTRUCTION**

"N" 26+04.00

**BEGIN CONSTRUCTION**

"N" STA 11+81 ARCADE BLVD.

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**APPROVED BY:**

RICKY CHUCK, R.C.E. 61443 SENIOR ENGINEER	DATE
BILL BUSATH, R.C.E. 52118 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, DRAINAGE	DATE

**APPROVED BY:**

HECTOR BARRON, P.E., T.E. CITY TRAFFIC ENGINEER SIGNING & STRIPING	DATE
DAN SHERRY, R.C.E. 53638 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, WATER	DATE

**ACCEPTED BY:**

SOMPOL CHATUSRIPITAK, R.E. 13633 SENIOR ELECTRICAL ENGINEER	DATE
RICHARD S. BATHA, R.C.E. 36129 SUPERVISOR ENGINEER DEPARTMENT OF UTILITIES, SEWER	DATE

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**INDEX OF SHEETS**

102 TO 125	NORWOOD AVENUE BRIDGE, BR No.
------------	-------------------------------

**APPROVED BY:**

RICKY CHUCK, R.C.E. 61443 SENIOR ENGINEER	DATE
BILL BUSATH, R.C.E. 52118 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, DRAINAGE	DATE

**APPROVED BY:**

HECTOR BARRON, P.E., T.E. CITY TRAFFIC ENGINEER SIGNING & STRIPING	DATE
DAN SHERRY, R.C.E. 53638 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, WATER	DATE

**ACCEPTED BY:**

SOMPOL CHATUSRIPITAK, R.E. 13633 SENIOR ELECTRICAL ENGINEER	DATE
RICHARD S. BATHA, R.C.E. 36129 SUPERVISOR ENGINEER DEPARTMENT OF UTILITIES, SEWER	DATE

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**STRUCTURE PLANS**

102 TO 125	NORWOOD AVENUE BRIDGE, BR No.
------------	-------------------------------

SEE SHEET A-1 FOR ADDITIONAL ABBREVIATIONS AND GENERAL NOTES

**FIELD BOOK**

###	SCALE
HORIZ. N/A	DESIGNED BY: K. BEWSEY
VERT. N/A	DATE 01/14/2010

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**APPROVED BY:**

RICKY CHUCK, R.C.E. 61443 SENIOR ENGINEER	DATE
BILL BUSATH, R.C.E. 52118 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, DRAINAGE	DATE

**APPROVED BY:**

HECTOR BARRON, P.E., T.E. CITY TRAFFIC ENGINEER SIGNING & STRIPING	DATE
DAN SHERRY, R.C.E. 53638 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, WATER	DATE

**ACCEPTED BY:**

SOMPOL CHATUSRIPITAK, R.E. 13633 SENIOR ELECTRICAL ENGINEER	DATE
RICHARD S. BATHA, R.C.E. 36129 SUPERVISOR ENGINEER DEPARTMENT OF UTILITIES, SEWER	DATE

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**STRUCTURE PLANS**

102 TO 125	NORWOOD AVENUE BRIDGE, BR No.
------------	-------------------------------

SEE SHEET A-1 FOR ADDITIONAL ABBREVIATIONS AND GENERAL NOTES

**FIELD BOOK**

###	SCALE
HORIZ. N/A	DESIGNED BY: K. BEWSEY
VERT. N/A	DATE 01/14/2010

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**APPROVED BY:**

RICKY CHUCK, R.C.E. 61443 SENIOR ENGINEER	DATE
BILL BUSATH, R.C.E. 52118 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, DRAINAGE	DATE

**APPROVED BY:**

HECTOR BARRON, P.E., T.E. CITY TRAFFIC ENGINEER SIGNING & STRIPING	DATE
DAN SHERRY, R.C.E. 53638 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, WATER	DATE

**ACCEPTED BY:**

SOMPOL CHATUSRIPITAK, R.E. 13633 SENIOR ELECTRICAL ENGINEER	DATE
RICHARD S. BATHA, R.C.E. 36129 SUPERVISOR ENGINEER DEPARTMENT OF UTILITIES, SEWER	DATE

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**STRUCTURE PLANS**

102 TO 125	NORWOOD AVENUE BRIDGE, BR No.
------------	-------------------------------

SEE SHEET A-1 FOR ADDITIONAL ABBREVIATIONS AND GENERAL NOTES

**FIELD BOOK**

###	SCALE
HORIZ. N/A	DESIGNED BY: K. BEWSEY
VERT. N/A	DATE 01/14/2010

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**APPROVED BY:**

RICKY CHUCK, R.C.E. 61443 SENIOR ENGINEER	DATE
BILL BUSATH, R.C.E. 52118 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, DRAINAGE	DATE

**APPROVED BY:**

HECTOR BARRON, P.E., T.E. CITY TRAFFIC ENGINEER SIGNING & STRIPING	DATE
DAN SHERRY, R.C.E. 53638 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, WATER	DATE

**ACCEPTED BY:**

SOMPOL CHATUSRIPITAK, R.E. 13633 SENIOR ELECTRICAL ENGINEER	DATE
RICHARD S. BATHA, R.C.E. 36129 SUPERVISOR ENGINEER DEPARTMENT OF UTILITIES, SEWER	DATE

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**STRUCTURE PLANS**

102 TO 125	NORWOOD AVENUE BRIDGE, BR No.
------------	-------------------------------

SEE SHEET A-1 FOR ADDITIONAL ABBREVIATIONS AND GENERAL NOTES

**FIELD BOOK**

###	SCALE
HORIZ. N/A	DESIGNED BY: K. BEWSEY
VERT. N/A	DATE 01/14/2010

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**APPROVED BY:**

RICKY CHUCK, R.C.E. 61443 SENIOR ENGINEER	DATE
BILL BUSATH, R.C.E. 52118 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, DRAINAGE	DATE

**APPROVED BY:**

HECTOR BARRON, P.E., T.E. CITY TRAFFIC ENGINEER SIGNING & STRIPING	DATE
DAN SHERRY, R.C.E. 53638 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, WATER	DATE

**ACCEPTED BY:**

SOMPOL CHATUSRIPITAK, R.E. 13633 SENIOR ELECTRICAL ENGINEER	DATE
RICHARD S. BATHA, R.C.E. 36129 SUPERVISOR ENGINEER DEPARTMENT OF UTILITIES, SEWER	DATE

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**STRUCTURE PLANS**

102 TO 125	NORWOOD AVENUE BRIDGE, BR No.
------------	-------------------------------

SEE SHEET A-1 FOR ADDITIONAL ABBREVIATIONS AND GENERAL NOTES

**FIELD BOOK**

###	SCALE
HORIZ. N/A	DESIGNED BY: K. BEWSEY
VERT. N/A	DATE 01/14/2010

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**BENCH MARK** ELEV. 38.627.

DESCRIPTION	CHAMBER	BM/ZZH	4C

HORIZ. DATUM NAD83 (1997.30)

**APPROVED BY:**

RICKY CHUCK, R.C.E. 61443 SENIOR ENGINEER	DATE
BILL BUSATH, R.C.E. 52118 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, DRAINAGE	DATE

**APPROVED BY:**

HECTOR BARRON, P.E., T.E. CITY TRAFFIC ENGINEER SIGNING & STRIPING	DATE
DAN SHERRY, R.C.E. 53638 SUPERVISING ENGINEER DEPARTMENT OF UTILITIES, WATER	DATE

90% SUBMITTAL 9/3/2010, NOT FOR CONSTRUCTION

**NOTES:**

1. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.
2. FOR COMPLETE RIGHT OF WAY, SEE RIGHT OF WAY RECORD MAPS AT THE CITY OF SACRAMENTO.
3. ALL STATIONING ALONG "N" LINE UNLESS OTHERWISE SHOWN.
4. FOR ALIGNMENT LINE AND CURVE DATA, SEE PROJECT CONTROL SHEETS.
5. FOR DETAILS NOT SHOWN, SEE CONSTRUCTION DETAIL SHEETS

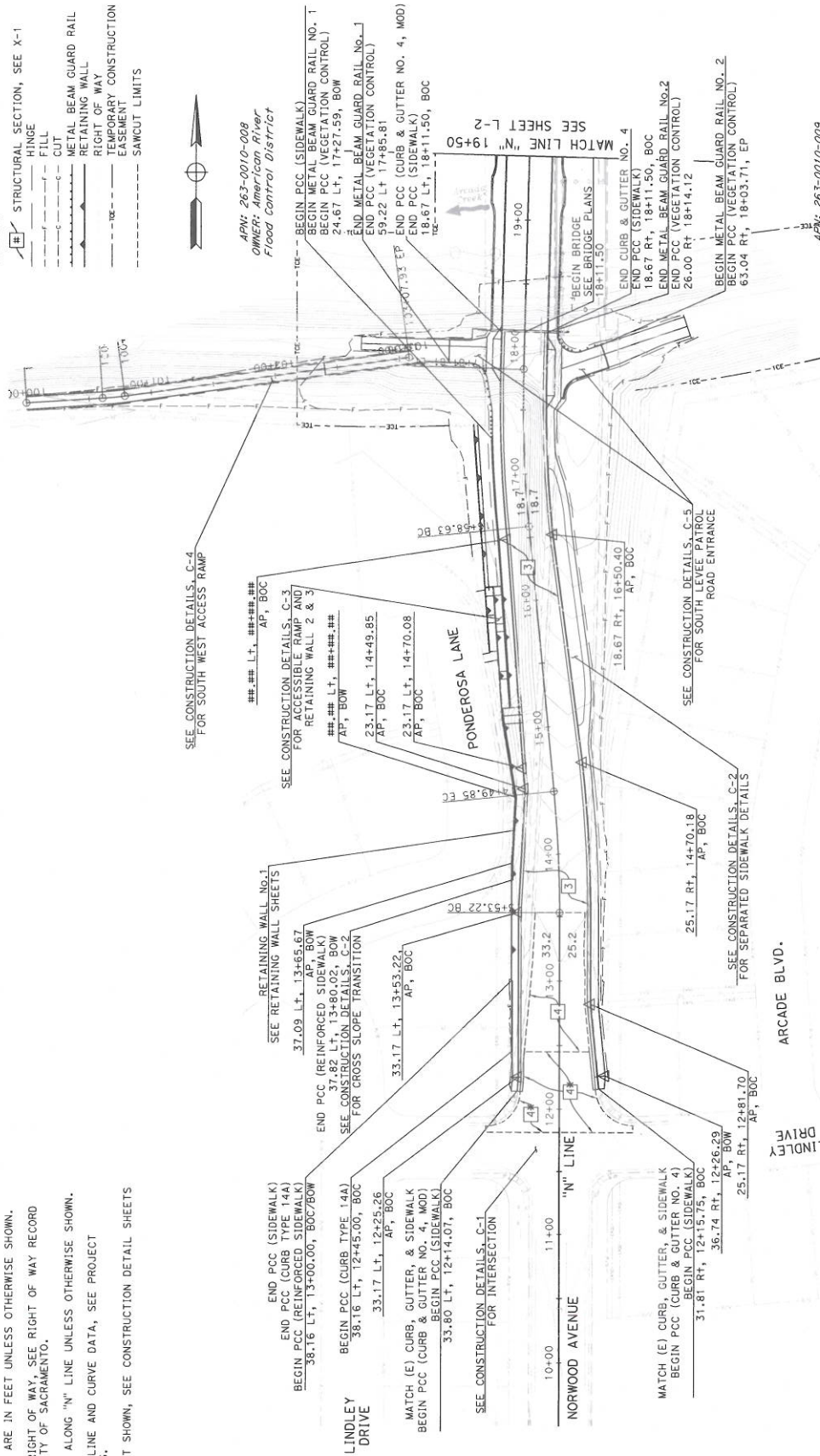
**LEGEND**

	STRUCTURAL SECTION, SEE X-1
	HINGE
	FILL
	CURB
	METAL BEAM GUARD RAIL
	RETAINING WALL
	RIGHT OF WAY
	TEMPORARY CONSTRUCTION EASEMENT
	SAWCUT LIMITS



APN: 263-0010-008  
OWNER: American River  
Flood Control District

APN: 263-0010-009  
OWNER: American River  
Flood Control District



LOCATION	TRANSITION RAILING	END CAP	MBGR ASSEMBLY	END ANCHOR	DESCRIPTION
1	TYPE 1B	TYPE TC 88-3	TYPE SFT	17+27.59 TO 17+85.81	CONNECT TO BARRIER
2	TYPE 1B	TYPE TC 50-0	TYPE SFT	18+03.71 TO 18+14.12	CONNECT TO BRIDGE RAIL

NOTE: FOR TYPE 1B, ELIMINATE 12 GAGE THREE BEAM ELEMENT IDENTIFIED AS "C" FROM THE LEGEND OF STATE STANDARD PLAN A77J4.

NO.	REVISIONS	DATE	BY

BENCH MARK	ELV.	38.62Z
DESCRIPTION	BENCHMARK	BM277H-4C
VERT. DATUM	NGVD29	
HORIZ. DATUM	NAD83 (1987-80)	

**CITY OF SACRAMENTO**  
DEPARTMENT OF TRANSPORTATION

DESIGNED BY: K. BENNEY  
DATE: 7/10/2009  
R.C.E. 71485

CHECKED BY: K. RHODES  
DATE: 03/20/2010  
R.C.E. 53857



IMPROVEMENT PLANS FOR  
**NORWOOD AVENUE BRIDGE REPLACEMENT**  
LAYOUT  
"N" LINE 91+50 TO 19+50

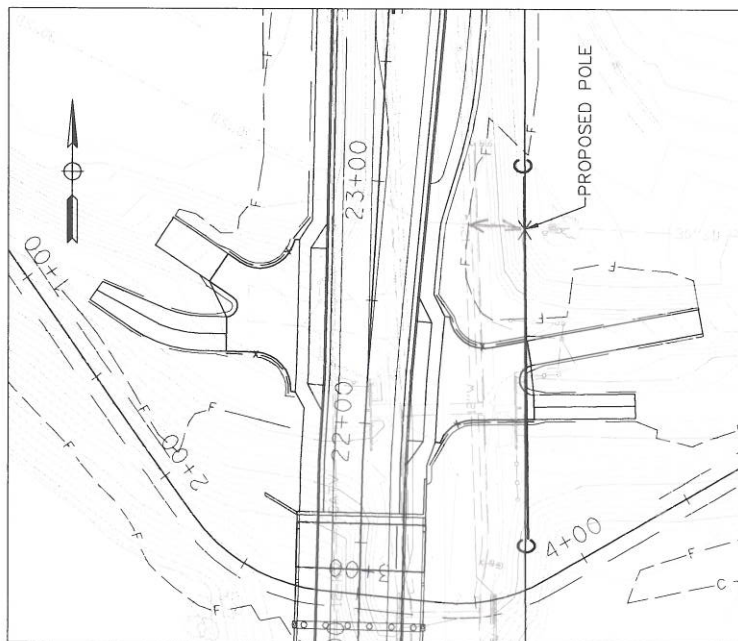
SHEET	L-1
OF	9
NO.	125

T15084900

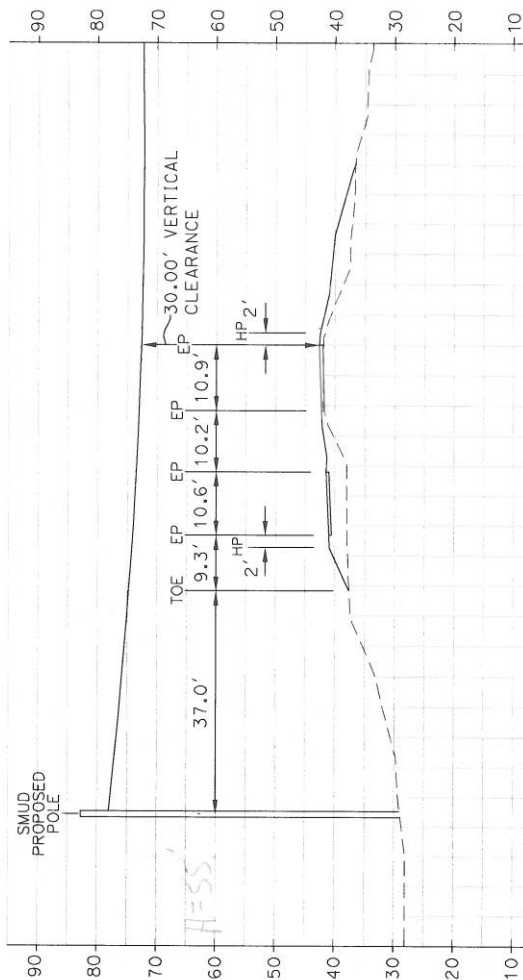








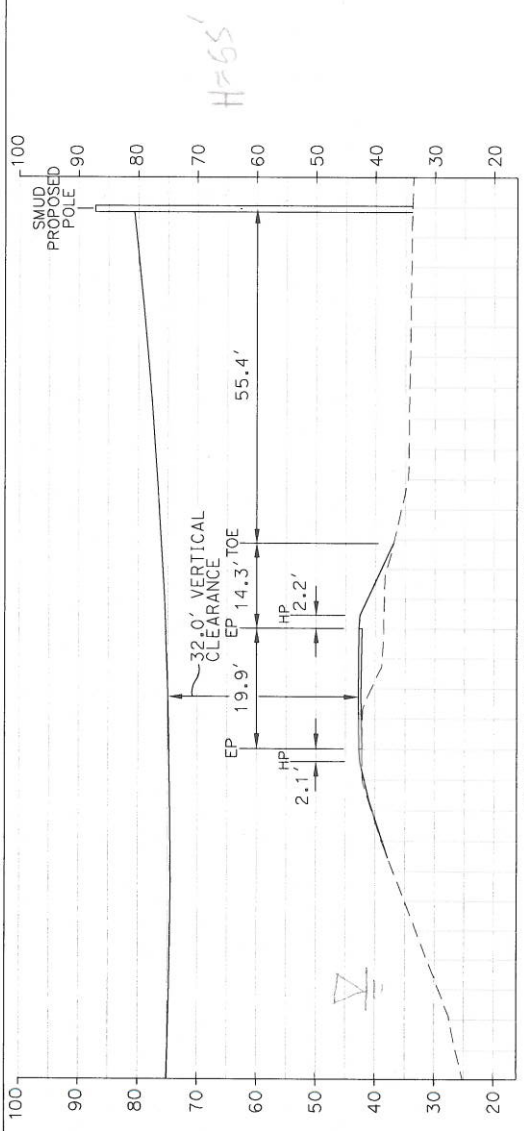
PLAN VIEW  
SCALE 1"=50'



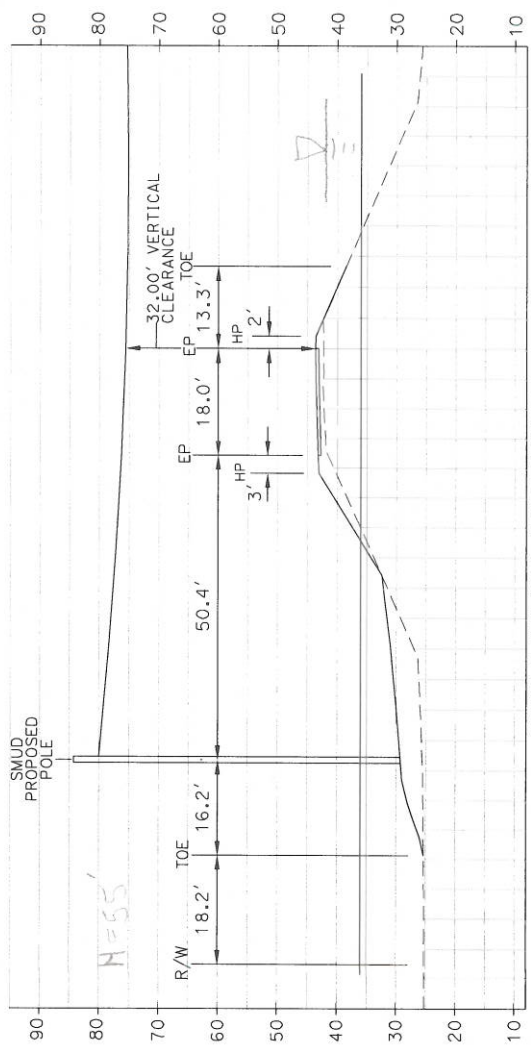
NORTH LEVEE ROAD CROSS SECTION C-C  
(EAST SIDE OF NORWOOD AVE - FACING EAST)  
SCALE: HORIZ 1"=20'  
VERT 1"=20'

PROPOSED SMUD & COMCAST POLE RELOCATIONS  
FOR THE  
CITY OF SACRAMENTO  
NORWOOD AVENUE BRIDGE REPLACEMENT PROJECT  
CVFPB ENCROACHMENT PERMIT APPLICATION



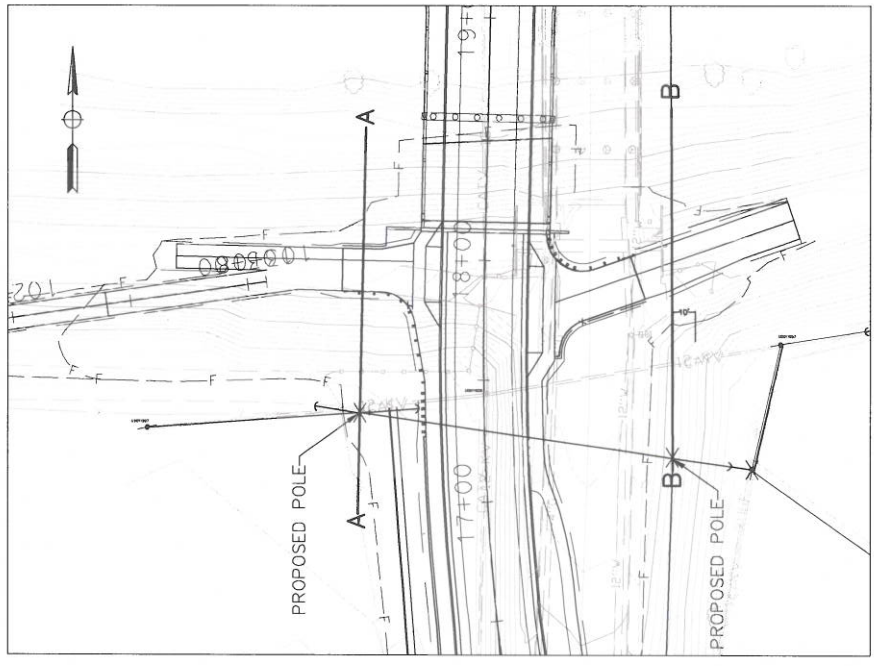


SOUTH LEVEE ROAD CROSS SECTION B-B  
(EAST SIDE OF NORWOOD AVE - FACING EAST)

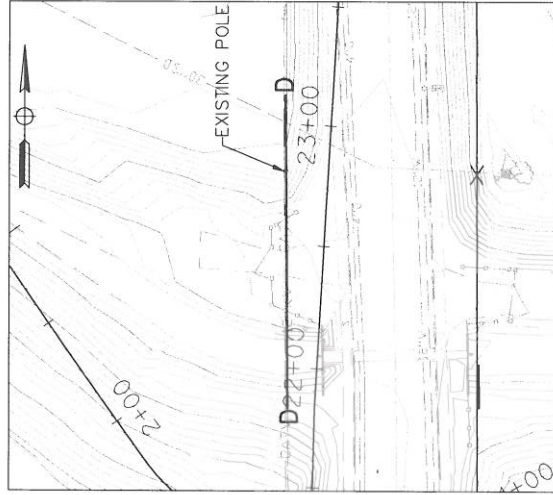
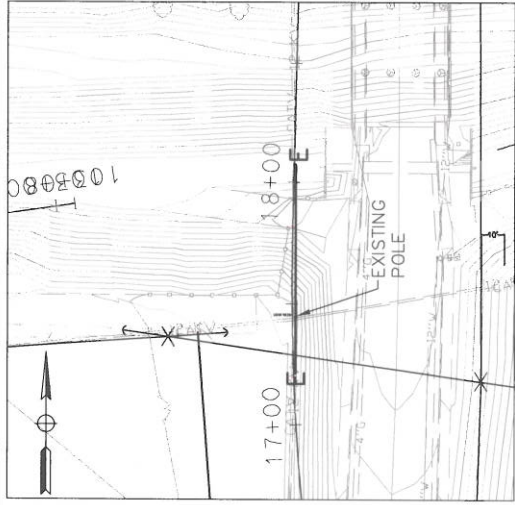
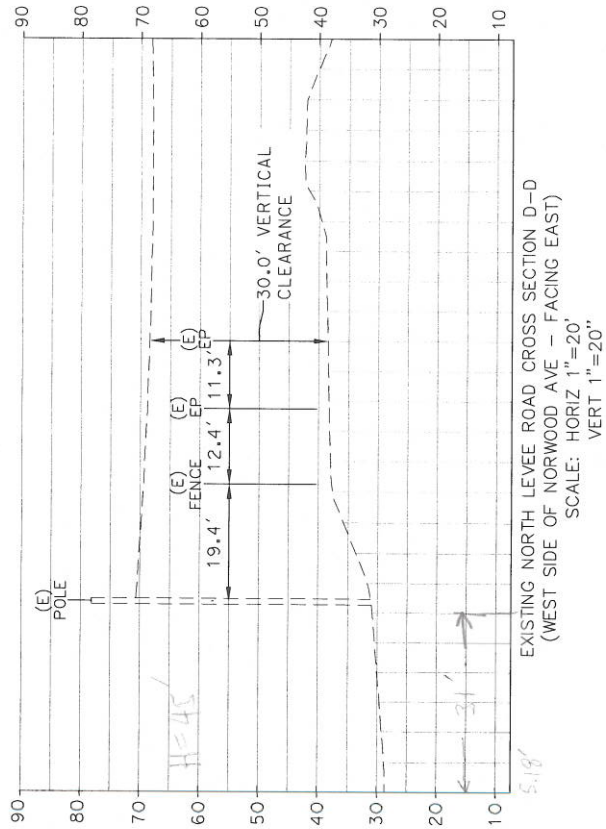
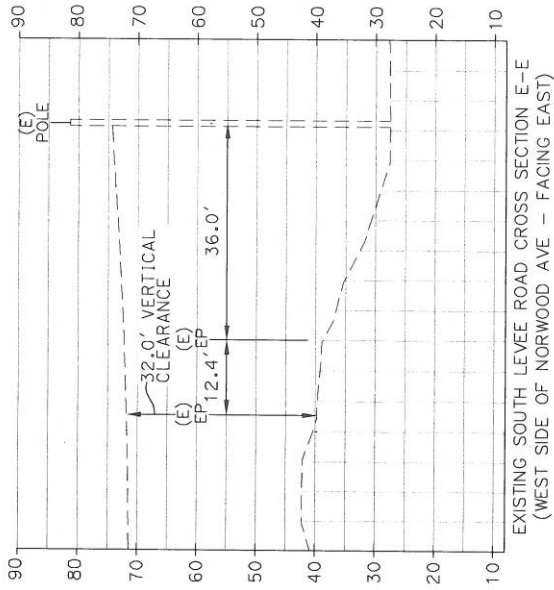


SOUTH LEVEE ROAD CROSS SECTION A-A  
(WEST SIDE OF NORWOOD AVE - FACING WEST)

SCALE: HORIZ 1"=20'  
VERT 1"=20'



PLAN VIEW  
SCALE 1"=50'





*Photo 1: Looking upstream from south levee*



*Photo 2: Looking south from bridge sidewalk*

*Site Photos*





*Photo 3: Looking downstream from north levee*



*Photo 4: Looking downstream from south levee*

*Site Photos*



*Photo 5: Looking downstream from bridge sidewalk*



*Photo 6: Looking upstream from bridge sidewalk*

*Site Photos*







SMUD Pole #	Ex/ New	Status	Location	~ Coordinates (1)		Distance from Landside Toe	Pole Height
				North	West		
18	Existing pole	To be removed by utility Co.	South Levee	38^37'	121^27'	Removed	60'
6	New pole		West of Ex. Bridge	25.01"	25.00"		
17	Existing pole	To be removed by utility Co.	North Levee	30.07"	24.55"	10' N. of North toe	55'
13	New pole		East of Ex. Bridge	29.99"	25.32"	Removed	55'
14	Existing pole	To remain	North Levee	24.69"	26.11"	15' S. of South toe	32'
119908	Existing pole	To remain	West of Ex. Bridge	24.63"	27.07"	26' S. of South toe	
7	New pole	On ex. Street which is to be relocated.	South Levee	24.64"	28.49"	28' S. of South toe	
20	Existing pole	To remain	West of Ex. Bridge	24.33"	24.59"	54' S. of South toe	55'
21	Existing pole	To remain	South Levee	24.88"	23.73"	15' S. of South toe	32'
119955	Existing pole	To remain: Outside C/E	East of Ex. Bridge	25.01"	25.00"	levee toe prism	
107672	Existing pole	To remain: Outside C/E	East of Ex. Bridge	25.41"	20.66"	15' S. of South toe	
119954	Existing pole	To remain: Outside C/E	South Levee	25.76"	19.45"	17' S. of South toe	
			East of Ex. Bridge	26.05"	18.31"	10' S. of South toe	

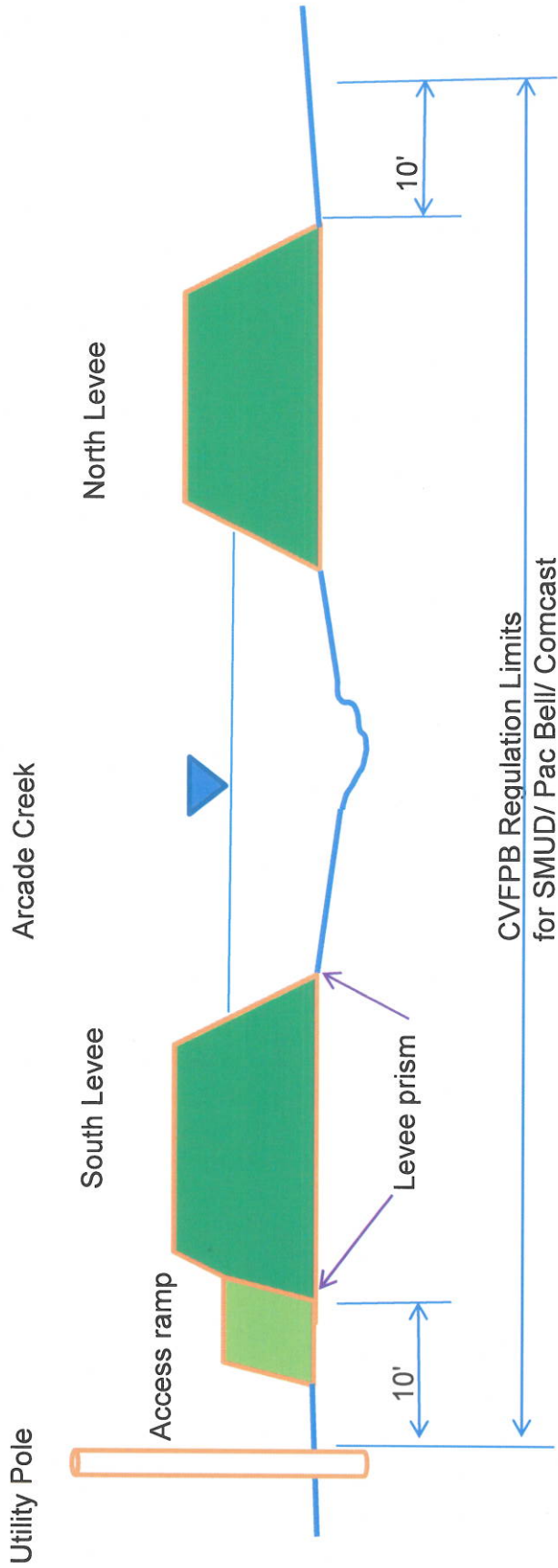
Total = 12 poles

3 new proposed poles  
 2 removed poles  
 4 existing poles  
 3 existing poles outside Cons't Easement

-(1) ~Coordinates are estimated by Google maps from SMUD Map#348/155 dated 01-27-2011








**TYPICAL CROSS - SECTION @ NORWOOD AVENUE BRIDGE**



### Setting Depth

	Pole Length (Ft)	SMUD Preferred Setting Depth <sup>(1)</sup>	Minimum Setting Depth (Ft) <sup>(2)(3)</sup>	
			Soil	Rock
Meets Joint Pole & G.O. 95 Requirements	25	5.0	4 ½	3
	30	5.0	5	3
	35	5.0	5	3 ½
	40	5.5	5 ½	3 ½
	45	6.0	6	4
	50	6.5	6 ½	4
	55	7.0	7	4 ½
	60	7.5	7	4 ½
	65	8.0	7 ½	5
	70	8.5	7 ½	5
SMUD Approved Requirements	75	9.0	8	5 ½
	80	9.5	8	6
	85	10.0	10	6 ½
	90	10.5	10 ½	7
	95	11.0	11	7 ½
	100	11.5	11 ½	8
	105	12.0	12	8 ½
110	12.5	12 ½	9	
115	13.0	13	9 ½	

- (1) SMUD preferred setting depth is [10% plus 1.5 feet], or [5 feet]; whichever is greater.
  - (2) Minimum depths shown in these two columns are from G.O. 95, Table 6
  - (3) For 115kV poles, see AA2.3.
- For unusual soil or terrain conditions, refer to Standard AA2.2.

DAVID PORTER	TOM LYONS	JERRY NISHIZAKI	STEVE HALLMARK	REVISION	1
STANDARDS	RESOURCE SUPERVISOR ELECTRIC DESIGN STANDARDS	SUPERVISOR DESIGN RESOURCE CENTER	SUPERVISOR WORK PERFORMANCE RESOURCE CENTER	JULY 05	
	CONSTRUCTION STANDARDS POLES SETTING DEPTH			AA2.1	