

MEMORANDUM OF AGREEMENT
between the
CITY AND COUNTY OF SAN FRANCISCO
acting through its
PUBLIC UTILITIES COMMISSION,
and the
COUNTY OF SAN MATEO

**(Skyline Boulevard Bridge Replacement and
Lower Crystal Springs Dam Improvements Projects)**

This Memorandum of Agreement (“**MOA**”), dated for reference purposes only February __, 2015, is made by and between the CITY AND COUNTY OF SAN FRANCISCO, a California municipal corporation (“**CCSF**”), and the COUNTY OF SAN MATEO, a political subdivision of the State of California (“**County**”).

RECITALS

A. CCSF, acting by and through its Public Utilities Commission (“**SFPUC**”), owns and operates a regional water system that serves San Francisco and twenty-seven (27) wholesale water customers located in San Mateo, Santa Clara, and Alameda counties in the Bay Area.

B. SFPUC's Crystal Springs/San Andreas Transmission System (“**CSSATS**”) includes Lower Crystal Springs Dam, Upper and Lower Crystal Springs Reservoir, and San Andreas Reservoir, all located in the San Francisco Peninsula Watershed on unincorporated land in County.

C. County owns easement rights for the Skyline Boulevard Bridge located atop Lower Crystal Springs Dam pursuant to a deed between the Spring Valley Water Company and the State of California dated August 16, 1922 (the “**Highway Easement**”). SFPUC and County are the successors in interest to the rights of Spring Valley Water Company and the State of California, respectively, that are described in the Highway Easement. County proposes to replace the Skyline Boulevard Bridge atop Lower Crystal Springs Dam (the “**Bridge Replacement Project**”). In the course of its evaluation of the proposed Bridge Replacement Project pursuant to the California Environmental Quality Act (“**CEQA**”) (Public Resources Code section 21000 *et seq.*), County sought, and was granted, CCSF's permission for County to utilize a portion of SFPUC's Peninsula Watershed lands to mitigate the construction-related impacts of Bridge Replacement Project construction on the California red legged frog, a threatened species under the federal endangered species act. Prior to the initiation of said mitigation, County received a Biological Opinion (the “**Biological Opinion**”) from the U.S. Fish and Wildlife Service that contemplated relocation of a portion of the frog population atop Lower Crystal Springs Dam to the Tracy Lake site in SFPUC's Peninsula Watershed. SFPUC allowed such use of its watershed lands as a part of the demolition phase of the Bridge Replacement Project and, if required, during the contemplated Bridge Replacement Project construction.

D. SFPUC has developed a Water System Improvement Program (“**WSIP**”) with the goals of increasing CCSF's water system's ability to withstand major seismic events and prolonged droughts and to reliably meet future water demands. As part of WSIP, SFPUC implemented two projects in the area of the Skyline Boulevard Bridge: the Crystal Springs/San Andreas Transmission System Upgrades (“**CSSATS Project**”), and the Lower Crystal Springs Dam Improvements Project (the “**Dam Project**”), which included, among other improvements, modifications to the existing parapet wall and spillway on Lower Crystal Springs Dam; and improvements to the stilling basin in San Mateo Creek below Lower Crystal Springs Dam for the purpose of complying with the California Department of Water Resources – Division of Safety and Dams (the “**DSOD**”) mandate to improve the dam's hydraulic capacity and to meet water supply; water delivery, and drought-management goals outlined in WSIP in part for the benefit

of County cities and residents and businesses in unincorporated areas governed by County. The respective project areas, which include overlapping areas relating to County's Bridge Replacement Project, the CSSATS Project and the Dam Project (collectively, the "**Projects**"), are shown on the attached **Exhibit A-1**, **Exhibit A-2**, and **Exhibit A-3**. Construction of the CSSATS Project and the Dam Project has been substantially completed.

E. Implementation of the Projects has required and will require coordination between CCSF and County in order to reduce costs, minimize cumulative environmental impacts, avoid interference between contractors, and to otherwise reduce the potential for construction related claims by contractors retained by CCSF and County. County and SFPUC have been working cooperatively to identify and address their respective requirements and concerns relating to the construction of the Projects.

F. On November 5, 2009, CCSF published a Draft Environmental Impact Report ("**DEIR**") for the CSSATS Project. After the close of a forty-five (45)-day public review period on December 19, 2009, CCSF prepared responses to comments on environmental issues received at the public hearings and in writing during the public review period for the DEIR, prepared revisions to the text of the DEIR in response to comments received or based on additional information that became available during the public review period, and corrected errors in the DEIR. This material was presented in a Draft Comments and Responses document ("**C&R**"), published on April 8, 2010. A Final Environmental Impact Report ("**FEIR**") was prepared by CCSF's Planning Department (the "**Department**"), consisting of the DEIR, any consultations and comments received during the review process, any additional information that became available, the Comments and Responses document, and several errata sheets, which made minor clerical corrections. CSSATS Project files on the FEIR are available for public review at the Department offices at 1650 Mission Street, San Francisco, California. Copies of the DEIR and associated reference materials as well as the C&R were also available for review at public libraries in the City and County of San Francisco and San Mateo County.

G. On April 22, 2010, the San Francisco Planning Commission, acting as lead agency on behalf of the CCSF with respect to the CSSATS Project, certified the FEIR. On May 11, 2010, the SFPUC approved the CSSATS Project, and, in so doing, adopted findings pursuant to CEQA, including a statement of overriding considerations for the CSSATS Project's significant and unavoidable impacts, rejected project alternatives, and adopted a mitigation monitoring and reporting program.

H. On March 2, 2010, CCSF published a DEIR for the Dam Project. After the close of a forty-five (45)-day public review period on April 16, 2010, CCSF prepared responses to comments on environmental issues received at the public hearings and in writing during the public review period for the Dam Project DEIR, prepared revisions to the text of the Dam Project DEIR in response to comments received or based on additional information that became available during the public review period, and corrected errors in the Dam Project DEIR. This material was presented in a Dam Project C&R published on September 22, 2010. A Dam Project FEIR was prepared by the Department, consisting of the Dam Project DEIR, any consultations and comments received during the review process, any additional information that became available, the Dam Project C&R, and several errata sheets, which made minor clerical corrections. Dam Project files on the FEIR are available for public review at the Department offices at 1650 Mission Street, San Francisco, California. Copies of the Dam Project DEIR and associated reference materials as well as the Dam Project C&R were also available for review at public libraries in the City and County of San Francisco and San Mateo County.

I. On October 7, 2010, the San Francisco Planning Commission, acting as lead agency on behalf of the CCSF with respect to the Dam Project, certified the Dam Project FEIR. On October 15, 2010, the SFPUC approved the Dam Project, and, in so doing, adopted findings pursuant to CEQA, including a statement of overriding considerations for the Project's

significant and unavoidable impacts, rejected project alternatives, and adopted a mitigation monitoring and reporting program.

J. On December 1, 2009, pursuant to Board Resolution No. 070543, County adopted findings under CEQA as a lead agency with respect to the Bridge Replacement Project, and certified the Mitigated Negative Declaration (“**MND**”) for the Bridge Replacement Project, which MND included a Mitigation Monitoring and Reporting Program (“**MMRP**”). Copies of the MND and the MMRP are available for public view at the offices of the San Mateo County Department of Public Works, 555 County Center, 5th Floor, Redwood City, California 94063.

K. On May 25, 2010, County adopted findings under CEQA as a responsible agency, incorporating by reference the CEQA findings of the CCSF, and adopted pursuant to Board Resolution No. 070790 a mitigation monitoring and reporting program, as applicable to its approval action.

NOW, THEREFORE, in consideration of their mutual covenants in this MOA, the parties agree as follows.

1. TERM

This MOA shall become effective on the date ("**Effective Date**") it has been fully executed and delivered by both parties, provided it has been authorized in a manner required by law by CCSF and County. Except as stated in Section 2.6 below, the term of this MOA shall continue in effect thereafter until the earlier of (a) one (1) year after County's completion of the Bridge Replacement Project, (b) the ninth (9th) anniversary of the Effective Date, or (c) the date this MOA is earlier terminated as provided herein.

If either party breaches a material term of this MOA without the other party's fault and does not cure the breach within thirty (30) calendar days notice by the non-breaching party, the non-breaching party may terminate this MOA without any penalty or liability of either party to the other; provided, however, if more than thirty (30) days are reasonably required for such cure, the non-breaching party shall not have the right to terminate this MOA on account of such breach if the other party promptly commences the cure within such thirty (30)-day period and diligently prosecutes such cure to completion.

2. PROJECTS' SEQUENCING AND SCHEDULE; COOPERATIVE CONSTRUCTION OBLIGATIONS; APPROVAL PROCESS

2.1. County / SFPUC Construction Schedule Coordination.

The Projects have been, and will be, implemented in the following sequence:

(a) County has completed the required environmental mitigation in connection with the Bridge Replacement Project. As a part of the environmental mitigation measures adopted in connection with the Projects, prior to the commencement of the demolition of the existing Skyline Boulevard Bridge atop Lower Crystal Springs Dam pursuant to the Bridge Replacement Project, County was required to relocate a portion of the resident top-of-the-dam California red legged frog population (egg masses) to the Tracy Lake area of the SFPUC's adjacent Peninsula Watershed lands as authorized by and pursuant to the Biological Opinion. The parties acknowledge that, as of the Effective Date, County has relocated the portion of the egg masses as so required. On or about May 11, 2011, County completed demolishing and removing the existing Skyline Boulevard Bridge atop Lower Crystal Springs Dam.

(b) On or about May 1, 2012, SFPUC completed construction of the Dam Project. In connection with the construction of the Dam Project, County provided CCSF with the plans and specifications described in the attached **Exhibit B-1** (the "**Bridge Replacement Project Pier Connection Specifications**") for County's requirements regarding the details and locations of the bridge pier connections on top of the Lower Crystal Springs Dam where County will connect its bridge-support piers (the "**Connection Locations**"). CCSF incorporated the Bridge

Replacement Project Pier Connection Specifications into CCSF's Dam Project construction contract and has completed construction and inspection of the bridge pier connections (the "**Pier Connection Work**"). As of the Effective Date, CCSF's construction of the CSSATS Project has been substantially completed and SFPUC's contractor has completed demobilization and removal of all construction equipment, excess materials, and construction personnel from the Lower Crystal Springs Dam viewing area (the "**Vista Parking Area**").

(c) County is preparing to undertake the completion of the Bridge Replacement Project, which will include its mobilization and re-occupation of the Bridge Replacement Project site and construction of the new Skyline Boulevard Bridge. At CCSF's expense, the general contractor to be engaged by County to construct the Bridge Replacement Project (the "**Bridge Contractor**"), will perform, as part of its work (i) construction of a spillway catwalk over the new spillway and to be attached to the new bridge (the "**Dam Project Spillway Catwalk Installation Work**"), and (ii) relocation of the conduit housing power and communications lines for CCSF's newly constructed Utility Building, and construction of a piezometer extension through the County's bridge bent (together, the "**Utility Relocation Work**") (the Dam Project Spillway Catwalk Installation Work and the Utility Relocation Work may sometimes be referred to in this MOA collectively as the "**CCSF Bridge Project Work**"), all in accordance with design plans and specifications applicable to those two categories of construction work (respectively, the "**Dam Project Spillway Catwalk Specifications**" provided by CCSF to County and described in the attached Exhibit B-2 and the "**Utilities Relocation Specifications**" provided by CCSF to County and described in the attached Exhibit B-3) (collectively, the "**CCSF Bridge Project Work Specifications**"). County will retain its Bridge Contractor pursuant to a competitive bid process required by applicable law. As part of such bidding process, County shall require all bidders seeking the award from County of the Bridge Replacement Project construction contract (the "**Bridge Construction Contract**") to separately specify in their bids the estimated costs of constructing, and the amounts to be paid pursuant to such bids for, the CCSF Bridge Project Work. Upon or prior to the date (the "**Bridge Contract Acceptance Date**") that County accepts the lowest bid with respect to the Bridge Replacement Project that qualifies for acceptance by County in accordance with applicable law (the "**Low Bid**"), County shall deliver to CCSF copies of those portions of the Low Bid documents received by the County that detail the projected costs of the CCSF Bridge Project Work with all appropriate back-up documentation submitted by the bidder related to such portions of the Low Bid. If, upon CCSF's receipt of such portions of the Low Bid from County, the estimated costs of the CCSF Bridge Project Work contained in the Low Bid exceed Four Hundred Fifty Thousand Dollars (\$450,000), CCSF may give notice to County to request additional documentation from the bidder relating to the calculation of the projected costs of the CCSF Bridge Project Work contained in the Low Bid or a modification of the CCSF Bridge Project Work Specifications to reduce the estimated costs of the CCSF Bridge Project Work to a level acceptable to CCSF or otherwise amend the Low Bid and County will work cooperatively as necessary to achieve prompt agreement among County, the Bridge Contractor, and CCSF to modify the CCSF Bridge Project Work Specifications and Bridge Contractor's estimate of the costs of the CCSF Bridge Project Work to a level reasonably acceptable to CCSF. In connection with any such request by CCSF, at CCSF's further request, County will also deliver promptly to CCSF copies of those portions of any other qualifying bids submitted by other candidate contractors that detail the projected costs of the CCSF Bridge Project Work with all appropriate back-up documentation submitted by such other candidate contractors related to such portions of such bid and thereby allow CCSF to determine that the projected costs of the CCSF Bridge Project Work contained in the Low Bid do not unreasonably exceed the projected costs of the CCSF Bridge Project Work contained in such other bids and that the Low Bid is not otherwise discriminatory with respect to the CCSF Bridge Project Work. Within twenty-one (21) days of the Bridge Contract Acceptance Date, CCSF shall give notice to County by which CCSF either (i) approves the Bridge Contractor's original or revised estimated costs of the CCSF Bridge Project Work (such approved amount shall hereafter be referred to as the "**CCSF Bridge Project**

Budget”) or (ii) cancels the CCSF Bridge Project Work, whereupon County and the Bridge Contractor shall be relieved of any obligation to perform the CCSF Bridge Project Work. If CCSF approves the Bridge Contractor’s original or revised estimated costs of the CCSF Bridge Project Work within twenty-one (21) days of the Bridge Contract Acceptance Date, pursuant to the Bridge Construction Contract, County shall cause the Bridge Contractor, in the course of the construction of the Bridge Replacement Project, to implement and perform the CCSF Bridge Project Work to completion and acceptance by CCSF pursuant to Section 2.4(d). Upon completion of the Bridge Project construction work, County’s Bridge Contractor will demobilize and remove all construction equipment, excess materials, and construction personnel from the Bridge Replacement Project site.

2.2. CCSF’s Option to Expand Scope of CCSF Bridge Project Work to Relocate Existing Subterranean Infrastructure Affected by Bridge Replacement Project Construction Work.

If (i) County’s construction specifications incorporated in the Bridge Construction Contract on the Bridge Contract Acceptance Date (the “**Contract Bridge Specifications**”) require or contemplate changes to the grade, surface, or topography of the Vista Parking Area that will materially impair CCSF’s ability to access its existing subterranean water system infrastructure (e.g., water pipes, drainage pipes, and associated appurtenances) located within or adjacent to the Vista Parking Area (the “**Vista Facilities**”) or (ii) County and/or County’s Bridge Contractor encounter any of the Vista Facilities that will reasonably require relocation because of changes to the grade, surface, or topography of the Vista Parking Area that will materially impair CCSF’s ability to access the Vista Facilities, then CCSF shall have the option to submit specifications to be prepared by or on behalf of CCSF (the “**Relocation Specifications**”) for the relocation of the Vista Facilities during or in connection with the Bridge Replacement Project construction in order to allow the Vista Facilities to be accessible to CCSF and the SFPUC for future operation, maintenance, repair, and replacement purposes. Accordingly, (x) on or before the Bridge Contract Acceptance Date, County shall deliver to CCSF those portions of the Contract Bridge Specifications that address any construction work to occur on, under, or within the Vista Parking Area that might affect or change the existing, pre-construction grade, surface, or topography of the Vista Parking Area and (y) pursuant to the Bridge Construction Contract, County shall cause Bridge Contractor to agree to the following measures: (1) if, during the preparation for, or implementation of, the Bridge Replacement Project construction work, County and/or Bridge Contractor discover or encounter any Vista Facilities that will be affected by the implementation the Bridge Replacement Project construction work, County and Bridge Contractor shall give CCSF prompt notice thereof, (2) upon receipt of such notice or upon CCSF’s determination from its review of the Contract Bridge Specifications, CCSF may deliver to Bridge Contractor and County the Relocation Specifications with CCSF’s request that the Bridge Contractor prepare and deliver to CCSF an estimate of the cost of relocating some or all of the Vista Facilities pursuant to the Relocation Specifications (the “**Relocation Work**”) during the course of Bridge Replacement Project construction work so that such Vista Facilities will be situated in a location in or about the Vista Parking Area that is reasonably accessible to CCSF for future operation, maintenance, repair, and replacement after completion of Bridge Replacement Project construction; (3) upon acceptance of such bid or any amended bid resulting from any negotiations or agreement between CCSF and the Bridge Contractor, with respect to the Relocation Work (either such bid, the “**Relocation Work Bid**”), Bridge Contractor will implement and perform the Relocation Work completion and acceptance by CCSF pursuant to Section 2.4(d); and (4) in accordance with the terms and conditions of the Relocation Work Bid, CCSF shall be solely responsible to pay or reimburse County for the full cost (as detailed in the Bridge Construction Contract invoices or other appropriate documentation of those costs provided by County’s Bridge Contractor) due to Bridge Contractor with respect to the Relocation Work, except to the extent additional construction is necessary to implement the relocation of any of the Vista Facilities work, and resulting costs are caused by, changes requested by County to the Contract Bid Specifications after the Bridge Contract Acceptance Date.

2.3. Required Permits and Approvals.

County represents and warrants that all County approvals required in connection with CCSF's construction of its Dam Project were obtained and no further approvals from County for implementation of CCSF's Dam Project are required. CCSF shall allow the same areas of SFPUC property (top of the Lower Crystal Springs Dam, Vista Parking Area and adjacent shoulders, spur to Sawyer Camp Trail) outside the limits of the Highway Easement area that were used for the demolition phase of the Bridge Replacement Project to be made available to the Bridge Contractor during the course of the Bridge Replacement Project construction.

2.4. Bridge Replacement Project Pier Connection Specifications.

(a) **County's Bridge Pier Connections.** As stated above, County provided CCSF with the Bridge Replacement Project Pier Connection Specifications, which specified the Connection Locations. Pursuant to CCSF's Dam Project construction contract, CCSF has completed construction of the Dam Project and the Pier Connection Work. County has inspected and hereby accepts and approves the Pier Connection Work and acknowledges that the Pier Connection Work complies with the Bridge Replacement Project Pier Connection Specifications in all material respects. County warrants that the Bridge Replacement Project Pier Connection Specifications as incorporated into the Dam Project specifications are consistent with its requirements and that County has no other requirements regarding CCSF's construction of the Dam Project. CCSF will provide County with copies of all final "as-built" drawings, certificates of compliance, and testing results of the embedded anchors (rebars) with respect to such completed work, to the extent such drawings, certificates and testing results were prepared or received by CCSF. Upon County's request, CCSF will provide any available as-built drawings with respect to the County's Bridge Pier Connection Work to the extent prepared or received by CCSF.

(b) **County Payment Obligation.** County shall reimburse CCSF for the full cost incurred by CCSF in the implementation of the Pier Connection Work within thirty (30) days of County's receipt from CCSF of all invoices reflecting the Pier Connection Work, which shall be accompanied by adequate documentation of all such reimbursable costs, including contractors' invoices; provided, however, that such reimbursable costs shall not exceed One Hundred Fifty Thousand Dollars (\$150,000).

2.5. CCSF Bridge Project Work Specifications.

(a) **CCSF's Approval of CCSF Bridge Project Work Specifications.** CCSF provided the CCSF Bridge Project Work Specifications to County, and County has consulted with CCSF in incorporating the CCSF Bridge Project Work Specifications into County's Bridge Replacement Project construction specifications, which, in turn will be incorporated into the contract to be entered into between County and its Bridge Contractor with respect to the Bridge Replacement Project construction (the "**Bridge Construction Contract**"). CCSF warrants that the CCSF Bridge Project Work Specifications as incorporated into the Bridge Replacement Project construction specifications are consistent with its requirements and that CCSF has no other requirements regarding County's construction of the CCSF Bridge Project Work. CCSF represents and warrants that County's Bridge Contractor shall not be required to obtain any further approvals from CCSF for implementation of County's Bridge Replacement Project except those specified in Exhibit B-2, Exhibit B-3, and Exhibit C.

(b) **Changes to CCSF Bridge Project Specifications or Relocation Specifications at CCSF's Request.** If CCSF desires changes to the CCSF Bridge Project Specifications or, if CCSF provides Relocation Specifications pursuant to Section 2.2 above, the Relocation Specifications, it shall request such changes in writing. Such proposed changes shall be subject to County's approval, such approval not to be unreasonably withheld or delayed. CCSF shall bear the expense of all additional construction costs payable to County's Bridge Contractor, if any, resulting from requested changes to the CCSF Bridge Project Specifications

or Relocation Specifications and agreed to by County, or to changes required by application of federal, state, or local laws; provided, however, that County shall notify CCSF promptly of any anticipated cost increases resulting from the implementation of such requested changes, and provide CCSF with a reasonable opportunity to withdraw the request or otherwise amend the CCSF Bridge Project Specifications or Relocation Specifications to avoid or minimize cost increases.

(c) **Modifications to CCSF Bridge Project Specifications or Relocation Specifications Because of Changed Circumstances.** If County determines that it is necessary to modify the CCSF Bridge Project Specifications or, if CCSF provides Relocation Specifications pursuant to Section 2.2 above, the Relocation Specifications, because of any changed or newly discovered conditions or other circumstances ("**Changed Circumstances**"), it shall notify CCSF promptly of the possible modification, including full information about the nature and scope of the proposed modification, the reasons for it, the expected impact on the construction schedule and cost of the Bridge Replacement Project, and how County proposes that any extra costs be shared; provided, however, that to the extent any such proposed modifications of the CCSF Bridge Project Specifications or the Relocation Specifications becomes necessary because of (i) the requirements or application of any federal or state law or regulation to the CCSF Bridge Project Work or the Relocation Work, then CCSF shall be solely responsible for any resulting costs with respect to the modification of the CCSF Bridge Project Specifications or the Relocation Specifications, or (ii) County's errors or omissions in the preparation of its Bridge Replacement Project specifications or its material changes of the Contract Bid Specifications after the Bridge Contract Acceptance Date, then County shall be solely responsible for any resulting costs with respect to the consequent modification of the CCSF Bridge Project Specifications or the Relocation Specifications. CCSF and County will diligently and in good faith cooperate to review and agree on the response to such Changed Circumstances, and any related amendment to the CCSF Bridge Project Specifications or the Relocation Specifications in time for County to meet any response deadline in the Bridge Construction Contract related to Changed Circumstances. Notwithstanding the foregoing, without CCSF's prior, written consent, no change in the CCSF Bridge Project Specifications or the Relocation Specifications will result in any condition that is unsafe in a material manner or deleteriously impacts in a material manner the safety or functionality of the improvements to be constructed pursuant to the CCSF Bridge Project Specifications or the Relocation Specifications.

(d) **CCSF Inspections of County's Spillway Catwalk Installation and Utility Relocation Work by County's Bridge Replacement Project Contractor**

(i) If CCSF so desires, it may make daily inspections of the progress and condition of the CCSF Bridge Project Work or, if CCSF provides Relocation Specifications pursuant to Section 2.2 above the Relocation Work (each, an "**Elective Inspection**"), provided that no such inspection activity shall unreasonably interfere with County's construction activities. When a distinct phase of the CCSF Bridge Project Work or the Relocation Work is completed and must be inspected and accepted by CCSF as a precondition to the transfer of ownership and warranty assignment contemplated by Section 2.5(d) below, however, County shall give CCSF written notice ("**CCSF Inspection Notice**") that a CCSF inspection is required (a "**CCSF Necessary Inspection**"), and County shall allow five (5) business days following delivery of such notice for CCSF to perform the CCSF Necessary Inspection. All CCSF inspections must comply with the provisions of subsection (ii).

(ii) CCSF shall bear the expense of all CCSF inspections of the CCSF Bridge Project Work or the Relocation Work. CCSF shall coordinate all inspections with County. In conducting any inspections, CCSF shall not take any actions that unreasonably interfere with the Bridge Contractor's performance, direct the Bridge Contractor's performance in the field, or authorize any additional work.

(iii) If CCSF determines that any of the CCSF Bridge Project Work or the Relocation Work that has not previously been accepted by CCSF does not comply with the CCSF Bridge Project Specifications or the Relocation Specifications (as applicable), CCSF shall provide written notice to County specifying the basis for such rejection. Such notice shall be delivered to County within five (5) business days after an Elective Inspection or in the case of a Necessary Inspection, within five (5) business days after CCSF's receipt of the CCSF Inspection Notice. Upon receipt of such notice, County and the Bridge Contractor shall either promptly cause all non-conforming work to be corrected or meet in good faith with CCSF to seek agreement on appropriate corrective measures. Upon completion of any subsequent corrective work, County may reissue a CCSF Inspection Notice to allow CCSF inspection, approval, and acceptance of the completed work.

(iv) County will promptly inform the DSOD of any modifications to the Bridge Replacement Project specifications or construction plans previously approved by DSOD, or, if the DSOD's approval of the CCSF Bridge Project Specifications or the Relocation Specifications is required by applicable law, of any modifications to the CCSF Bridge Project Specifications or the Relocation Specifications, and obtain DSOD's approval of any such modifications prior to construction of the improvements to which such modifications relate. Concurrently with the issuance of any CCSF Inspection Notice, County will give a copy of such notice to DSOD and, prior to final completion of all Bridge Replacement Project construction, obtain DSOD's approval and acceptance of all Bridge Replacement Project construction, including, as required by applicable law, the CCSF Bridge Project Work or the Relocation Work.

(v) County or the Bridge Contractor shall issue a CCSF Inspection Notice to CCSF promptly upon completion of each Completed Phase (defined below in Section 2.4(f)) and, upon receipt of such notice, CCSF shall either accept the Completed Phase pursuant to the process set forth in Section 2.4 or reject it pursuant to the process stated in subsection (iii) above). Upon completion of the Bridge Replacement Project construction work, including, if performed, the Relocation Work, County's Bridge Contractor will demobilize and remove all construction equipment, excess materials, and construction personnel from the Bridge Replacement Project site. As soon as reasonably possible after final completion of the CCSF Bridge Project Work or the Relocation Work (as applicable), County will provide CCSF with copies of all final "as-built" drawings with respect to such completed work. Upon CCSF's request, during the period of the construction of the Bridge Replacement Project, County will also provide any available drafts of as-built drawings with respect to the CCSF Bridge Project Work or the Relocation Work (as applicable).

(e) **CCSF'S Payment Obligation.** Upon completion of the CCSF Bridge Project Work and acceptance of such work by CCSF in accordance with the inspection process stated in Section 2.4(d) above, CCSF shall reimburse County for the full costs (as detailed in the Bridge Construction Contract invoices or other appropriate documentation of those costs reasonably acceptable to CCSF provided by County's Bridge Contractor) of constructing and inspecting the CCSF Bridge Project Work in accordance with the CCSF Bridge Project Work Specifications within thirty (30) days of receipt of Bridge Contractor's invoices or other appropriate documentation reasonably acceptable to CCSF from County; provided, however, that such reimbursable costs shall not exceed the CCSF Bridge Project Budget. Similarly, if the Bridge Contractor performs the Relocation Work, CCSF shall reimburse County for the full cost (as detailed in the Bridge Construction Contract invoices or other appropriate documentation of those costs reasonably acceptable to CCSF provided by County's Bridge Contractor) of performing and inspecting the Relocation Work in accordance with the Relocation Specifications within thirty (30) days of receipt of Bridge Contractor's invoices or other appropriate documentation reasonably acceptable to CCSF from County. If County or County's Bridge Contractor submit invoices or other similar documents to CCSF that collectively exceed the CCSF Bridge Project Budget with respect to the CCSF Bridge Project Work or the Relocation Work Bid with respect to the Relocation Work, County, CCSF, and the Bridge Contractor shall

meet promptly and seek to resolve in good faith any disputes with respect to the amounts payable by CCSF with respect to the CCSF Bridge Project Work or the Relocation Work, as the case may be.

(f) **Transfer of Ownership and Warranties.** Once CCSF and County accept a distinct phase of the CCSF Bridge Project Work or the Relocation Work (if any) as completed by the Bridge Contractor (a "**Completed Phase**"), County shall deliver to CCSF, and CCSF shall execute, a certificate of completion and acceptance (a "**COA**") with respect to the Completed Phase in the form attached as **Exhibit D** (each COA shall be distinct from any other certificates of acceptance issued by County to Bridge Contractor in connection with the Bridge Replacement Project). Each COA will evidence CCSF's acceptance of the Completed Phase reflected in such COA and shall transfer ownership and responsibility for the operation and maintenance of that Completed Phase to CCSF provided, however, that the title to any improvements to be so transferred with respect to the Dam Project Spillway Catwalk Work shall be limited to those portions of the new spillway catwalk that are exterior to the surface of County's new bridge and, thus, accessible to CCSF for the purposes of maintenance and use by CCSF's contractors, employees, and agents. Upon CCSF's acceptance of each Completed Phase pursuant to a COA and payment of all sums due to the Bridge Contractor from CCSF pursuant to this MOA, County shall indemnify and hold CCSF harmless from any and all stop notice claims or other claims made by contractors, supplier or laborers for payment arising from or related to such Completed Phase. In addition, County and CCSF shall act in good faith to take all steps necessary to assign to CCSF the following rights arising under the Bridge Construction Contract to the extent relating to each Completed Phase accepted by CCSF (i) any express and implied warranties and guaranties from County's Bridge Contractor or suppliers related to the Completed Phase (each a "**Warranty**" and collectively "**Warranties**"), (ii) County's contractual rights related to the correction of nonconforming work to the extent applicable to the Completed Phase, and (iii) the right to pursue any Claim (defined in Section 3.1 below) against the Bridge Contractor for latent defects related to such Completed Phase. Each such assignment with respect to a Completed Phase shall be effective upon or promptly after CCSF's execution and delivery of a COA with respect to such Completed Phase and Bridge Contractor's executed consent to such assignment (Bridge Contractor's delivery of such consent promptly upon CCSF's and County's acceptance of a Completed Phase shall be an obligation required of Bridge Contractor pursuant to the Bridge Construction Contract). In connection with its assignment of the rights set forth above to County, the Bridge Construction Contract shall require Bridge Contractor to procure and provide directly to CCSF, promptly upon or coincident with the execution and delivery of a COA with respect to a Completed Phase, a maintenance bond in favor of CCSF that will guarantee all of Bridge Contractor's obligations with respect to the Warranties applicable to such Completed Phase. Each such bond shall be in a penal sum not less than 20% of the value of the work performed for each Completed Phase, shall cover defective workmanship and materials, and shall be issued by a surety admitted to do business in the State of California. .

2.6. Further Security.

CCSF is considering improving security conditions to address preexisting and future threats to water quality and public safety in the vicinity of the Lower Crystal Springs Dam and the Skyline Boulevard Bridge as may be required or recommended by the United States Department of Homeland Security or any other federal, state, or local governmental organization, agency, or entity with jurisdiction with respect to such issues. CCSF anticipates engaging certified security experts to evaluate existing and proposed security measures and recommend the best approach for addressing such security concerns. CCSF anticipates that, within one (1) year of the final completion of construction of the Projects, CCSF shall initiate a process for the design, construction, and/or installation of improved security measures, which may include the installation of fencing or other barriers along or adjacent to the outer edge of the side of County's Skyline Boulevard Bridge immediately adjacent to CCSF's reservoir and other security measures designed to prevent dumping or disposal of waste, debris, or other foreign

substances into the reservoir and thereby protect its water supply and quality. Any decision to implement improved security measures will be subject to all evaluations, studies, and approvals required by law, including CEQA. CCSF acknowledges that no improved security measures will result in any material interference with County's or the public's enjoyment of County's easement rights to use the Bridge for roadway purposes. If and to the extent either party or its governing bodies and officials must exercise discretion to approve the implementation of improved security measures, the parties expressly acknowledge that nothing in this MOA limits the discretion of such party, or any of its governing bodies or officials, to approve or reject on the basis of environmental considerations the implementation of such improved security measures. Subject to such retained discretion, County shall reasonably cooperate with the CCSF in connection with this Section 2.6 and each party shall be responsible for its respective agency and internal costs. Such obligation to cooperate shall survive the termination of this MOA for an additional two years after the termination date.

2.7. Cooperation in Implementation.

CCSF and County agree to cooperate, to achieve the implementation of the Projects, including but not limited to undertaking those specific obligations described in the attached **Exhibit C.**

2.8. Construction Coordination.

County and CCSF shall use good faith efforts to promptly resolve any and all disputes arising out of the construction of the Bridge Replacement Project, including any such disputes relating to the CCSF Bridge Project Work or the Relocation Work (if any). Prior to commencement of construction of the Bridge Replacement Project, the parties shall each designate and maintain at all times during the construction period a project representative ("**Representative**"), and an alternate for such Representative ("**Alternate**"), each of whom shall be authorized to confer and attend meetings and represent such party on any matter relating to the Projects. Each party may at any time and from time to time change its Representative or Alternate by written notice to the other party. Each party's Representative or Alternate shall be available during ordinary business hours so that questions and problems may be quickly resolved and so that the Projects may be completed economically and in accordance with their respective construction schedule. All approvals made by each party's Representative or Alternate shall be made in writing.

3. INDEMNIFICATION

3.1. County Indemnification of CCSF Related to Bridge Replacement Project Pier Connection Specifications and Bridge Replacement Project Construction Work

To the fullest extent permitted by law, County shall defend, indemnify, and save harmless CCSF, its Board, commissions, members, officers, employees, authorized representatives, or agents (collectively, "**CCSF Indemnitees**"), from and against any and all demands, claims, losses, costs, judgments, awards, penalties, fines, damages, injuries (including, without limitation, injury to or death of an employee of County or its contractors, subcontractors, or consultants), expenses, and liability of every kind (including, without limitation, incidental and consequential damages, court costs, attorneys' fees, litigation expenses, fees of expert consultants or witnesses in litigation, and costs of investigation) (each, a "**Claim**"), that arises out of, or relates to, directly or indirectly, in whole or in part, (a) any fault, defect, or negligence in the Bridge Replacement Project Pier Connection Specifications, (b) suits or claims for infringement of the patent rights, copyright, trade secret, trade name, trademark, service mark, or any other proprietary right of any person or persons in consequence of the use by any CCSF Indemnitee of any designs, plans, articles, or services included in the Bridge Replacement Project Pier Connection Specifications, (c) any construction or demolition performed in connection with the Bridge Replacement Project (inclusive of any Claims resulting from the construction, placement,

or installation of the Dam Project Spillway Catwalk Work or the Utility Relocation Work except to the extent resulting from any defect or negligence in the preparation of the Dam Project Spillway Catwalk Specifications and/or the Utility Relocation Specifications), or (d) resulting from County's breach of its obligations arising under this MOA. County's obligations under this Section shall survive the expiration or earlier termination of this MOA.

3.2. CCSF Indemnification of County Related to Dam Project Spillway Catwalk Specifications and Utility Relocation Specifications and Dam Project Construction Work.

To the fullest extent permitted by law, CCSF shall defend, indemnify, and save harmless County, its Board, commissions, members, officers, employees, authorized representatives, or agents (collectively, "**County Indemnitees**"), from and against any and all Claims that arise out of, or relate to, directly or indirectly, in whole or in part, (a) any fault, defect, or negligence in the Dam Project Spillway Catwalk Specifications or the Utility Relocation Specifications, (b) suits or claims for infringement of the patent rights, copyright, trade secret, trade name, trademark, service mark, or any other proprietary right of any person or persons in consequence of the use by any CCSF Indemnatee of any designs, plans, articles, or services included in the Dam Project Spillway Catwalk and Utility Relocation Specifications, (c) any construction or demolition performed in connection with the Dam Project (inclusive of any Claims resulting from the construction, placement, or installation of the Bridge Replacement Project Pier Connection Locations except to the extent resulting from any defect or negligence in the preparation of the Bridge Replacement Project Pier Connection Specifications), or (d) resulting from CCSF's breach of its obligations arising under this MOA. CCSF's obligations under this Section shall survive the expiration or earlier termination of this MOA.

3.3. Indemnification Procedures

On request, County or CCSF shall each defend any action, claim, or suit asserting a Claim covered by its indemnification obligations pursuant to this MOA. In any action or proceeding brought against any Indemnatee by reason of any Claim indemnified by County or CCSF hereunder, each party shall have the right to control the defense in any action or proceeding brought against it and to determine the settlement or compromise of any action or proceeding, provided that the other party shall have the right, but not the obligation, to participate in the defense of any such Claim. Each party shall pay all costs that may be incurred by any Indemnatee, including reasonable attorneys' fees, court costs, and all other litigation expenses related to or arising from any Claim. For purposes of this MOA, reasonable attorneys' fees of a party when it uses its own attorneys shall include the weighted costs attributable to all salaries, employee benefits, and perquisites received by or payable to such attorneys in connection with their employment by such party.

3.4 Additional Insureds.

In connection with the performance of the (a) Dam Project Spillway Catwalk Installation Work and the Utility Relocation Work by County's Bridge Replacement Project contractor in accordance with the Dam Project Spillway Catwalk and Utility Relocation Specifications, and (b) the Bridge Replacement Project installation work to be performed by County's contractor(s), the Bridge Construction Contract shall require County's Bridge Replacement Project contractor(s) to obtain and maintain insurance coverages in accordance with County's standard specifications, modified to require such contractor's general liability insurance policy to name CCSF and its directors, officers, agents, and employees as additional insureds under the terms of the policy.

4. MISCELLANEOUS

4.1. Notices.

Any notice, consent or approval required or permitted to be given under this MOA shall be in writing and shall be given by (i) hand delivery, against receipt, (ii) reliable next-business-day courier service that provides confirmation of delivery, or (iii) United States registered or certified mail, postage prepaid, return receipt required, to the address(es) set forth below or to such other address as either party may from time to time specify in writing to the other upon five (5) days prior written notice in the manner provided above. The parties' initial addresses are:

CCSF:

To: General Manager
San Francisco Public Utilities Commission
525 Golden Gate Ave
San Francisco, CA 94102

and Husam Masri, Project Manager
San Francisco Public Utilities Commission
525 Golden Gate Ave., 9th Floor
San Francisco, CA 94102
hmasri@sfgov.org

and: Alan Johanson, Manager, Construction Management Bureau.
San Francisco Public Utilities Commission
525 Golden Gate Ave., 6th Floor
San Francisco, CA 94102
ajohanson@sfgov.org

COUNTY:

To: James C. Porter, Director of Public Works
555 County Center, 5th Floor
Redwood City, CA 94063
Phone (650) 363-4100
jporter@smcgov.org

and: Ann Stillman, Deputy Director
555 County Center, 5th Floor
Redwood City, Ca 94063
Phone (650) 363-4100
astillman@smcgov.org

and John Nibblein, County Counsel
Hall of Justice and Records
400 County Center, 6th Floor
Redwood City, CA 94063
Phone (650) 363-4757
jnibblein@smcgov.org

A properly addressed notice transmitted by one of the foregoing methods shall be deemed received upon confirmed delivery, attempted delivery, or rejected delivery. Any notice delivered by email shall be effective upon the date that receipt of such emailed notice is confirmed by return email. Any fax numbers are provided for convenience of communication only; neither party may give official or binding notice by facsimile. The effective time of a notice shall not be affected by the receipt, prior to receipt of the original, of a faxed copy of a notice.

4.2. Risk of Non-Appropriation of Funds.

This MOA is subject to the budget and fiscal provisions of the City's Charter and County's Charter and Ordinance Code. Neither CCSF nor County shall have any obligation to make appropriations for this MOA in lieu of appropriations for new or other agreements. County acknowledges that CCSF budget decisions are subject to the discretion of its Mayor and Board of Supervisors and CCSF acknowledges that County budget decisions are subject to the discretion of its Director of Public Works and Board of Supervisors. CCSF and County each assume all risk of possible non-appropriation or non-certification of funds, and such assumption is part of the consideration for this MOA.

4.3. Certification of Controller.

The terms of this MOA shall be governed by and subject to the budgetary and fiscal provisions of CCSF's Charter and County's Charter and Ordinance Code. Notwithstanding anything to the contrary contained in this MOA, there shall be no obligation for the payment or expenditure of money by CCSF under this MOA unless the CCSF's Controller first certifies, pursuant to Section 3.105 of CCSF's Charter, that there is a valid appropriation from which the expenditure may be made and that unencumbered funds are available from the appropriation to pay the expenditure. Without limiting the foregoing, if in any fiscal year of CCSF after the fiscal year in which the term of this MOA commences, sufficient funds for the funding of construction costs and any other payments required under this MOA are not appropriated, then CCSF may terminate this MOA, without penalty, liability or expense of any kind to CCSF, as of the last date on which sufficient funds are appropriated. CCSF shall use its reasonable efforts to give County reasonable advance notice of such termination. Similarly, CCSF acknowledges that, if in any fiscal year of County after the fiscal year in which the term of this MOA commences, sufficient funds for the funding of construction costs and any other payments required under this MOA are not appropriated, then County may terminate this MOA, without penalty, liability or expense of any kind to County, as of the last date on which sufficient funds are appropriated. County shall use its reasonable efforts to give County reasonable advance notice of such termination.

4.4. Severability.

If any provision of this MOA or the application thereof to any person, entity, or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this MOA, or the application of such provision to persons, entities, or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each other provision of this MOA shall be valid and be enforceable to the fullest extent permitted by law, provided that the remainder of this MOA can be interpreted to give effect to the intention of the parties.

4.5. Good Faith.

Each party shall use all reasonable efforts and work wholeheartedly and in good faith for the expedited completion of the objectives of this MOA and the satisfactory performance of its terms.

4.6. Sole Benefit.

This MOA is for the sole benefit of the parties and shall not be construed as granting rights to any person other than the parties or imposing obligations on a party to any person other than the other party to this MOA.

4.7. Governing Law.

This MOA is made under and shall be governed by the laws of the State of California.

4.8. Amendment; Waiver.

Neither this MOA nor any term or provision hereof may be changed or amended, except by a written instrument signed by both parties. Any waiver by CCSF or County of any term, covenant, or condition contained in this MOA must be in writing, and a waiver of one breach shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition.

4.9. Counterparts.

This MOA may be executed in two or more counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

4.10. Recitals and Exhibits.

The Recitals set forth above are true and correct and are incorporated into this MOA. The attached exhibits referred to herein are incorporated into and made a part of this MOA.

4.11. Integration.

This MOA represents the entire understanding of the parties as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered in this MOA.

4.12. Tropical Hardwood and Virgin Redwood Ban.

Pursuant to §804(b) of the San Francisco Environment Code, CCSF urges contractors not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood or virgin redwood wood product. Except as expressly permitted by the application of Sections 802(b) and 803(b) of the San Francisco Environment Code, neither County nor any of its contractors nor the CCSF nor any of its contractors shall include in the specifications to be provided by such party pursuant to this MOA or in any other work performed by or on behalf of such party pursuant to or in connection with this MOA any items that are tropical hardwood, tropical hardwood wood products, virgin redwood, or virgin redwood wood products.

4.13. Nondiscrimination.

In the performance of this MOA, neither party shall discriminate against any employee, subcontractor, applicant for employment with County, or against any person seeking accommodations, advantages, facilities, privileges, services, or membership in all business, social, or other establishments or organizations, on the basis of the fact or perception of a person's race, color, creed, religion, national origin, ancestry, age, height, weight, sex, sexual orientation, gender identity, domestic partner status, marital status, disability or Acquired Immune Deficiency Syndrome or HIV status (AIDS/HIV status), or association with members of such protected classes, or in retaliation for opposition to discrimination against such classes.

[Signatures on following page]#

IN WITNESS WHEREOF, the Parties have executed this Memorandum of Agreement by their duly authorized representatives as of the day and year indicated on the first page of this MOA.

CITY AND COUNTY OF SAN FRANCISCO,
a California municipal corporation

COUNTY OF SAN MATEO

By: _____
Harlan L. Kelly, Jr.
General Manager, Public Utilities
Commission

By: _____

Its: _____

Dated: _____

Dated: _____

Authorized by San Francisco Public Utilities
Commission, Resolution No. _____

Authorized by Board of Supervisors
Resolution No. _____

By: _____
Commission Secretary

By: _____

Name: _____

Title: _____

Adopted _____, 20__

Adopted _____, 20__

APPROVED AS TO FORM
Dennis Herrera, City Attorney

APPROVED AS TO FORM

By: _____
Richard Handel
Deputy City Attorney

By: _____
John D. Nibbelin
Deputy County Counsel

EXHIBITS:

Exhibit A – Depiction of Locations of Projects

Exhibit A-1 – WD-2591: Location and Vicinity Maps

Exhibit A-2 – WD-2591: General Arrangement and Staging Areas

Exhibit A-3 – E4867: Existing Conditions and Demolition – North

Exhibit B – Specifications

Exhibit B-1 – Bridge Replacement Project Pier Connection Specifications

Exhibit B-2 – Dam Project Spillway Catwalk Specifications

Exhibit B-3 – Utility Relocation Specifications

Exhibit C – Cooperation in Implementation

Exhibit D – Form of Certificate of Completion and Acceptance

EXHIBIT A
DEPICTIONS OF PROJECT LOCATIONS

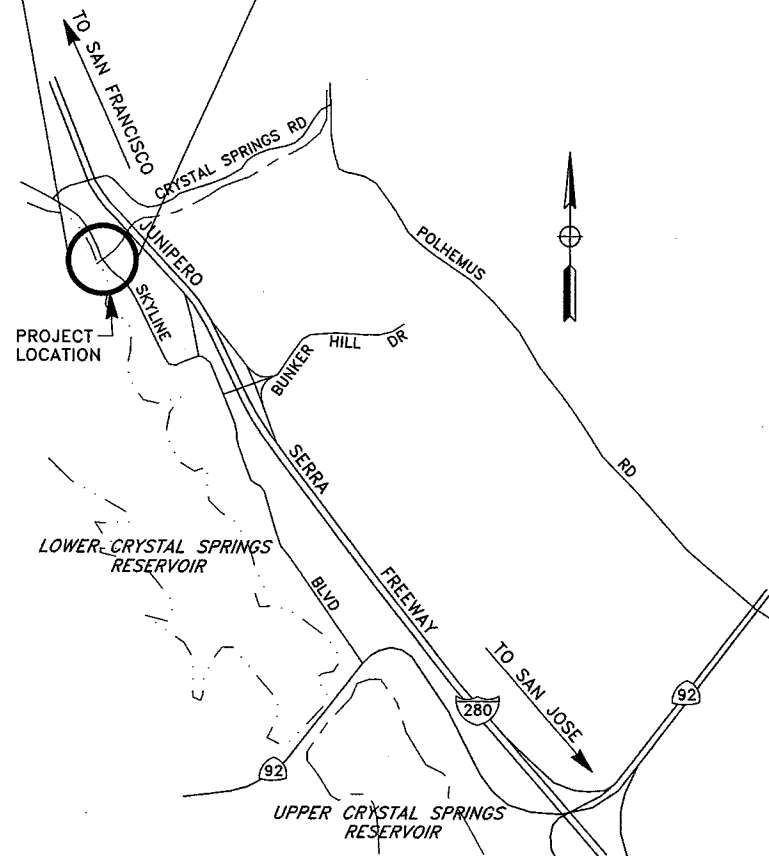
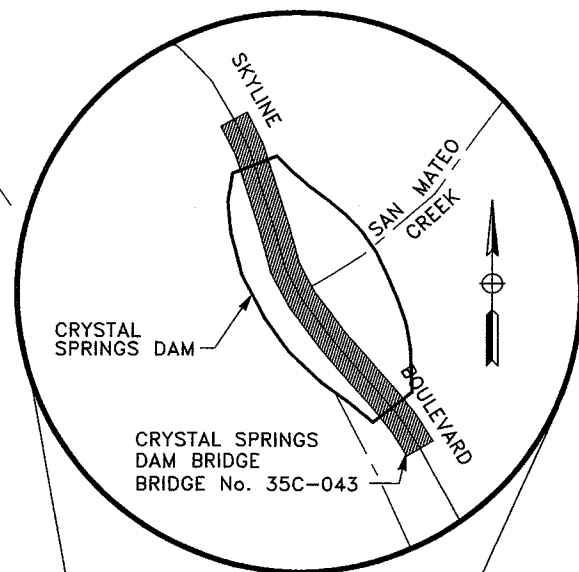
EXHIBIT A-1

WD-2591: LOCATION AND VICINITY MAPS

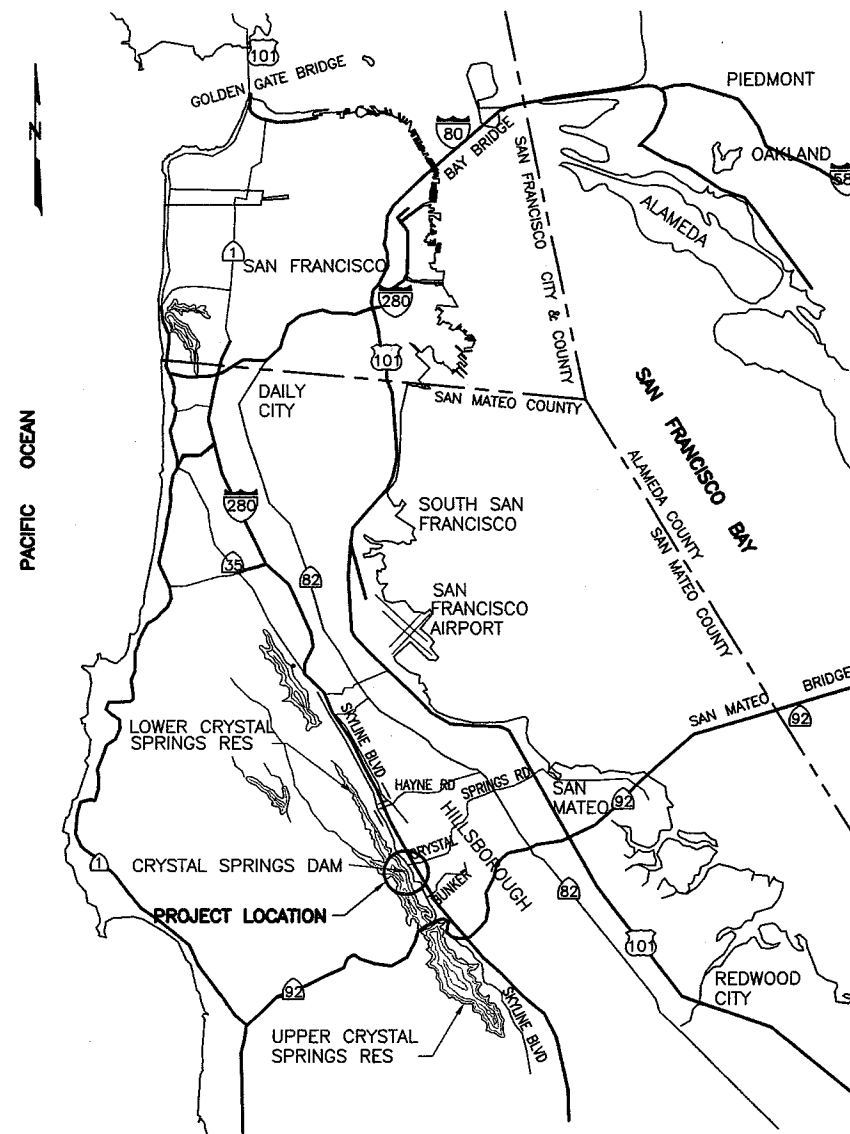
[Attach WD-2591: Location and Vicinity Maps]

T:\SFPUC Lower Crystal Spring Dam Improvement\Sheet\GN-3.dwg renold_harris Oct 01, 2010 - 11:18am
XREFS: EMB-CONSUL(CDD).DWG

PLOT: EXTEND
SCALE: 1:1
BORDER:
22,34
COLOR: No.
RED 0.70MM
YELLOW 0.20MM
GREEN 0.25MM
CYAN 0.40MM
BLUE 0.50MM
MAGENTA 0.20MM
WHITE 0.35MM
GRAY 0.15MM
9 0.15MM
10 1.00MM
100 0.50MM
210 0.50MM



VICINITY MAP
1"=1000'



LOCATION MAP
N.T.S.

Conformed

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PERMISSION OF THE SFPUC.

CONTRACT NO. WD-2591

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

LOWER CRYSTAL SPRINGS DAM
IMPROVEMENT PROJECT

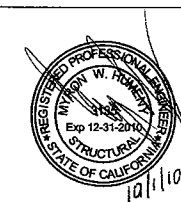
LOCATION AND VICINITY MAPS

URS
One Montgomery St., Ste. 900
San Francisco, Ca 94104
Tel: 415-896-5858
Fax: 415-882-9261

PROJECT ENGINEER	DRAWN	R.HARRIS
PROJECT MANAGER	DESIGNED	M.HUMERY
APPROVAL	CHECKED	C.KWON

CHECKED / APPROVED	CSL	DRAWN	SCALE
SECTION MANAGER	DESIGNED	DATE	AS SHOWN
APPROVED	DATE	AUGUST 2010	

MANAGER, ENGINEERING MANAGEMENT BUREAU	MANAGER, WATER SUPPLY DIVISION
SHEET	REVISION NO.
3 OF 84	GN-3
E-20133	0



ELEVATION
DATUM
NGVD 29

EXHIBIT A-2

WD-2591: GENERAL ARRANGEMENT AND STAGING AREAS

[Attach WD-2591: General Arrangement and Staging Areas]

T:\SFJUC Lower Crystal Spring Dam Improvement\Sheet\GN-8.dwg ronald.harris
XREFS: SITE.dwg EMB-CONSUL(GDD).DWG MORE SITE.DWG

PLOT: EXTEND
SCALE: 1"=1'
BORDER:
22,34
COLOR: No.
RED 0.70MM
YELLOW 0.20MM
GREEN 0.25MM
CYAN 0.40MM
BLUE 0.50MM
MAGENTA 0.20MM
WHITE 0.35MM
GRAY 0.15MM
9 0.15MM
10 1.00MM
100 0.50MM
210 0.50MM

FILE:

LOWER CRYSTAL SPRINGS RESERVOIR

USC & GS BM P386 RESET
1970 ON (E) BRIDGE

OUTLET TOWER NO. 1

RAISE EXISTING PARAPET
WALL TO EL. 302, TYP.
EACH SIDE OF WIDENED
SPILLWAY

CONSTRUCTION LIMIT

(N) OGEE CREST
AT WIDENED SPILLWAY

(N) BRIDGE PIERS IN
WIDENED SPILLWAY

WIDENED SPILLWAY

SPILLWAY

SPRINGS
EXISTING
SPILLWAY

DAM

(N) TRAINING WALLS
EACH SIDE OF SPILLWAY

(E) ELEVATED ROADWAY
BRIDGE TO BE DEMOLISHED
PRIOR TO WIDENING
SPILLWAY AND RAISING
PARAPET WALL

(E) WING WALL/DAM
FACE INTERSECTION

GRAPHIC SCALE
0 40' 80'
1"=40'-0"

CONTRACTOR'S & ENGINEER'S
OFFICE & PARKING AREA
SFWD PROPERTY LINE
LAYDOWN STAGING AREA
GATE (TYP)

VEGETATION
NOT SHOWN

REMOVE
TREES

REMOVE
(E) STILLING
BASIN

RIP-RAP

CHAIN LINK FENCE
INSIDE FACE OF
(E) WING WALL

CONSTRUCTION LIMIT

32'±

200'±

78" PIPE IN TUNNEL

PG&E SUBSTATION

GRAVEL ROAD

60" WATER SUPPLY PIPELINE

54" PIPE IN TUNNEL

CRYSTAL SPRINGS
PUMP HOUSE

NOT IN CONSTRUCTION AREA

60" OUTLET PIPE

TEMP. CONSTRUCTION
ACCESS ROAD

DIRT ROAD

60" WATER SUPPLY PIPELINE

60" WATER SUPPLY PIPELINE

60" WATER SUPPLY PIPELINE

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60" WATER SUPPLY PIPELINE

60" WATER SUPPLY PIPELINE

60" WATER SUPPLY PIPELINE

SAN MATEO CREEK

MATCH LINE A-A

STAGING AREA #8

SKYLINE BLVD

1000'

50'

(E) GATE

(E) SOUTHERN
BRIDGE ABUTMENT

(E) ROADWAY
BRIDGE PIERS

CONC DRAINAGE DITCH

CRYSTAL SPRINGS RD.

CONSTRUCTION LIMIT

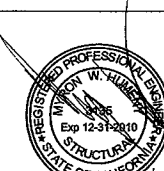
CHLORINE & FLUORIDE
BUILDING

CONC DRAINAGE DITCH

GENERAL ARRANGEMENT
AND CONTRACTOR STAGING AREA
1"=40'-0"

NOTES:

1. STAGING AREA NUMBERS 1, 2, & 4 NOT USED IN THE DRAWING.
2. STAGING AREAS 5 THROUGH 7 WILL NEED TO BE SHARED WITH OTHER CONTRACTORS.
3. CONTRACTOR SHALL INSTALL A TYPE I WILDLIFE EXCLUSION FENCE ALONG THE BOUNDARIES OF WORK AND STAGING AREAS.



ELEVATION
DATUM
NGVD 29

URS

One Montgomery St., Ste. 900
San Francisco, Ca 94104
Tel: 415-886-5858
Fax: 415-882-9261

PROJECT ENGINEER	DRAWN	R.HARRIS
PROJECT MANAGER	DESIGNED	M.HUMENY
APPROVAL	CHECKED	C.KWON
NO.	DATE	DESCRIPTION
1		
2		
3		
4		
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CONTRACT NO. WD-2591

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION
ENGINEERING MANAGEMENT BUREAU

LOWER CRYSTAL SPRINGS DAM
IMPROVEMENT PROJECT

GENERAL ARRANGEMENT
AND STAGING AREAS

CHECKED / APPROVED
SECTION MANAGER
APPROVED
MANAGER, ENGINEERING MANAGEMENT BUREAU

SCALE
AS SHOWN
DATE
AUGUST 2010

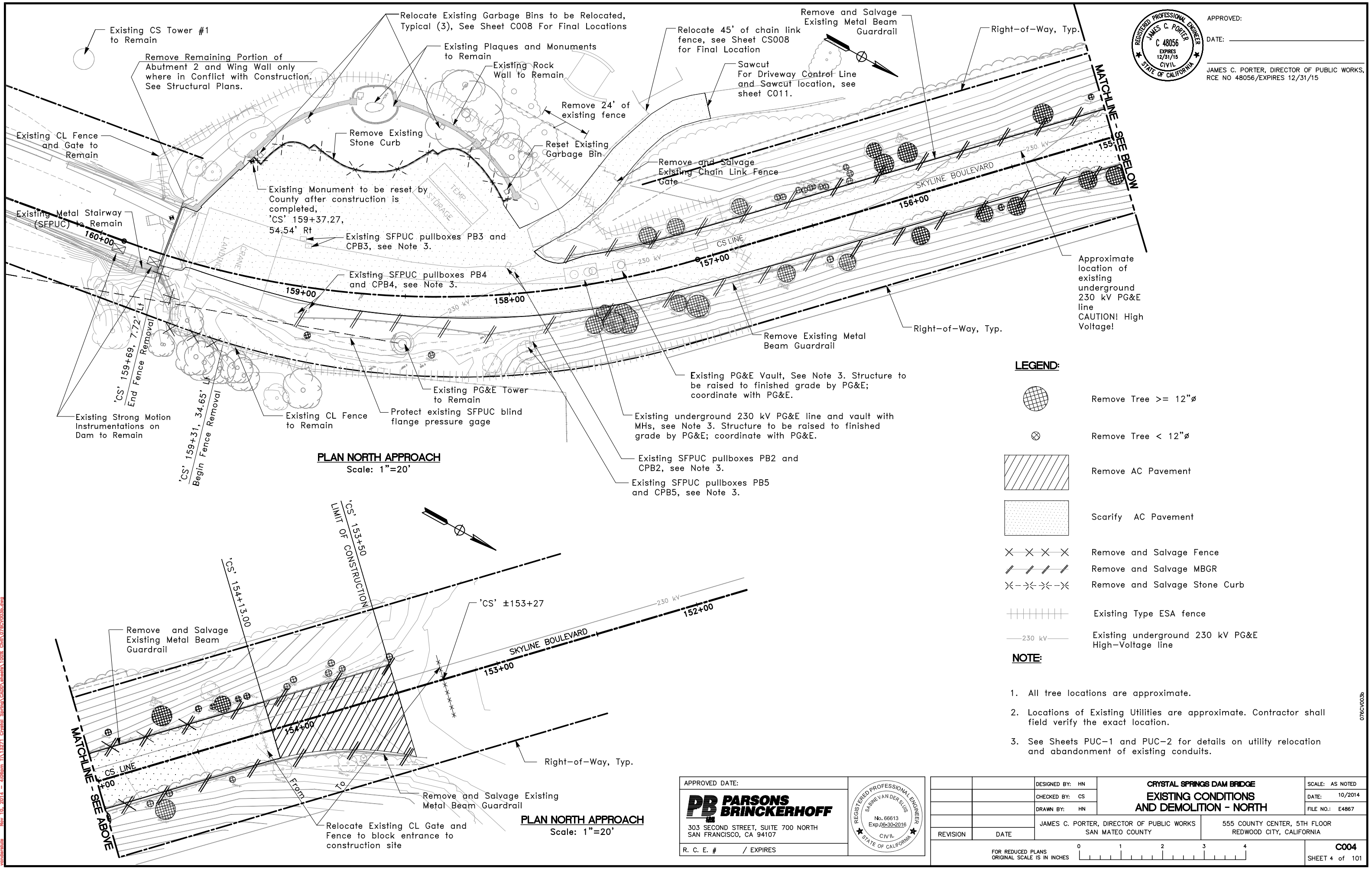
11 of 84
GN-8
E-20141
0

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OF THE SFJUC.

EXHIBIT A-3

**E4867: SITE CONDITIONS PRIOR TO CONSTRUCTION OF PROJECTS AND
DEMOLITION - NORTH**

[Attach E4867: Existing Conditions and Demolition - North]



APPROVED: _____
DATE: _____
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS,
RCE NO 48056/EXPIRES 12/31/15

LEGEND:

- Remove Tree >= 12"Ø
- Remove Tree < 12"Ø
- Remove AC Pavement
- Scarify AC Pavement
- Remove and Salvage Fence
- Remove and Salvage MBGR
- Remove and Salvage Stone Curb
- Existing Type ESA fence
- Existing underground 230 kV PG&E High-Voltage line

NOTE:

1. All tree locations are approximate.
2. Locations of Existing Utilities are approximate. Contractor shall field verify the exact location.
3. See Sheets PUC-1 and PUC-2 for details on utility relocation and abandonment of existing conduits.

APPROVED DATE: _____
PARSONS BRINCKERHOFF
303 SECOND STREET, SUITE 700 NORTH
SAN FRANCISCO, CA 94107
R. C. E. # _____ / EXPIRES _____

		DESIGNED BY: HN	CRYSTAL SPRINGS DAM BRIDGE EXISTING CONDITIONS AND DEMOLITION - NORTH		SCALE: AS NOTED
		CHECKED BY: CS			DATE: 10/2014
		DRAWN BY: HN			FILE NO.: E4867
		JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY		555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA	
REVISION	DATE				
FOR REDUCED PLANS ORIGINAL SCALE IS IN 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EXHIBIT B
SPECIFICATIONS

EXHIBIT B-1

BRIDGE REPLACEMENT PROJECT PIER CONNECTION SPECIFICATIONS AS DEPICTED AND DETAILED IN THE PROJECT DRAWINGS AND DOCUMENTS IDENTIFIED BELOW

Agency / Contract Number	Feature	Drawing Number / Specifications Document	Prepared By	Drawing Date	CCSF Agreements with San Mateo County
CCSF / WD-2591	Parapet Wall Plan - North	E-20152 / CCSF Contract WD-2591 Specifications Sections Div. 0 thru 5 as applicable	URS Corp. / SFPUC Engineering Management Bureau (“ EMB ”)	Aug. 2010	CCSF Construction of Bridge Replacement Project Pier Connection Work pursuant to County bridge pier connection design incorporated by CCSF’s contract documents WD-2591-Lower Crystal Springs Dam Improvements.
CCSF / WD-2591	Parapet Wall Plan - South	E-20153 / CCSF Contract WD-2591 Specifications Sections Div. 0 thru 5 as applicable	URS Corp. / EMB	Aug. 2010	CCSF Construction of Bridge Replacement Project Pier Connection Work pursuant to County bridge pier connection design incorporated by CCSF’s contract documents WD-2591-Lower Crystal Springs Dam Improvements.
CCSF / WD-2591	Parapet Wall Section & Details Sheet 2 of 2	E-20155 / CCSF Contract WD-2591 Specifications Sections Div. 0 thru 5 as applicable	URS Corp. / EMB	Aug. 2010	CCSF Construction of Bridge Replacement Project Pier Connection Work pursuant to County bridge pier connection design incorporated by CCSF’s contract documents WD-2591-Lower Crystal Springs Dam Improvements.
CCSF / WD-2591	Spillway Plan	E-20160 / CCSF Contract WD-2591 Specifications Sections Div. 0 thru 5 as applicable	URS Corp. / EMB	Aug. 2010	CCSF Construction of Bridge Replacement Project Pier Connection Work pursuant to County bridge pier connection design incorporated by CCSF’s contract documents WD-2591-Lower Crystal Springs Dam Improvements.
CCSF / WD-2591	Ogee Crest Sections Sheet 1 of 2	E-20162 / CCSF Contract WD-2591 Specifications Sections Div. 0 thru 5 as applicable	URS Corp. / EMB	Aug. 2010	CCSF Construction of Bridge Replacement Project Pier Connection Work pursuant to County bridge pier connection design incorporated by CCSF’s contract documents WD-2591-Lower Crystal Springs Dam Improvements.
CCSF / WD-2591	Bridge Pier Sections and Details	E-20168 / CCSF Contract WD-2591 Specifications Sections Div. 0 thru 5 as applicable	URS Corp. / EMB	Aug. 2010	CCSF Construction of Bridge Replacement Project Pier Connection Work pursuant to County bridge pier connection design incorporated by CCSF’s contract documents WD-2591-Lower Crystal Springs Dam Improvements.

EXHIBIT B-2

DAM PROJECT SPILLWAY CATWALK SPECIFICATIONS AS DEPICTED AND DETAILED IN THE PROJECT DRAWINGS AND DOCUMENTS IDENTIFIED BELOW

Agency / Contract Number	Feature	Drawing Number / Specifications Document	Prepared By	Drawing Date	CCSF Agreements with San Mateo County
County / BRLO-5935 (053)	General Notes and Sheet Index	S-1 / County Specifications Project No R1103 (File: E4867) The Reconstruction of County Bridge No. 67 on Crystal Spring Dam in Unincorporated San Mateo County, as applicable (“ County Specs R1103 ”)	CCSF-Dept. of Public Works (“ DPW ”)	Feb. 2014	County construction of Dam Project Spillway Catwalk Work pursuant to CCSF catwalk design incorporated within County Project No R1103 (File: E4867) (The Reconstruction of County Bridge No. 67 on Crystal Spring Dam in Unincorporated San Mateo County) (“ County Project No. R1103 ”)
County / BRLO-5935 (053)	General Notes and Abbreviations	S-2 / County Specs R1103	CCSF-DPW	Feb. 2014	County construction of Dam Project Spillway Catwalk Work pursuant to CCSF catwalk design incorporated within County Project No R1103
County / BRLO-5935 (053)	Spillway Plan	S-3 / County Specs R1103	CCSF-DPW	Feb. 2014	County construction of Dam Project Spillway Catwalk Work pursuant to CCSF catwalk design incorporated within County Project No R1103
County / BRLO-5935 (053)	Catwalk Plans	S-4 / County Specs R1103	CCSF-DPW	Feb. 2014	County construction of Dam Project Spillway Catwalk Work pursuant to CCSF catwalk design incorporated within County Project No R1103
County / BRLO-5935 (053)	Bridge Pier Elevation	S-5 / County Specs R1103	CCSF-DPW	Feb. 2014	County construction of Dam Project Spillway Catwalk Work pursuant to CCSF catwalk design incorporated within County Project No R1103
County / BRLO-5935 (053)	Sections and Details No. 1	S-6 / County Specs R1103	CCSF-DPW	Feb. 2014	County construction of Dam Project Spillway Catwalk Work pursuant to CCSF catwalk design incorporated within County Project No R1103
County / BRLO-5935 (053)	Sections and Details No. 2	S-7 / County Specs R1103	CCSF-DPW	Feb. 2014	County construction of Dam Project Spillway Catwalk Work pursuant to CCSF catwalk design incorporated within County Project No R1103
County / BRLO-5935 (053)	Sections and Details No. 3	S-8 / County Specs R1103	CCSF-DPW	Feb. 2014	County construction of Dam Project Spillway Catwalk Work pursuant to CCSF catwalk design incorporated within County Project No R1103

EXHIBIT B-3**UTILITY RELOCATION SPECIFICATIONS
AS DEPICTED AND DETAILED IN THE PROJECT DRAWINGS AND DOCUMENTS IDENTIFIED BELOW**

Agency / Contract Number	Feature	Drawing Number / Specifications Document	Prepared By	Date	CCSF Agreements with San Mateo County
County / BRLO-5935 (053)	CSPS Site Plan Electrical Part-1	E-19211-REV-1 / County Specs R1103	CCSF/SFPUC Engineering Management Bureau (“ EMB ”)	April 2014	County construction of Utilities Relocation Work pursuant to CCSF utilities relocation design incorporated within County Project No R1103
County / BRLO-5935 (053)	Pullbox Detail	E-19211.1-REV-1 / County Specs R1103	EMB	April 2014	County construction of Utilities Relocation Work pursuant to CCSF utilities relocation design incorporated within County Project No R1103
County / BRLO-5935 (053)	Shutdowns to, and Site Access on or Near SFPUC Facilities	Specification Section 108-2 – County Specs R1103	EMB	April 2014	County construction of Utilities Relocation Work pursuant to CCSF utilities relocation design incorporated within County Project No R1103
County / BRLO-5935 (053)	Basic Electrical Materials and Methods	Specification Section 108-3 – County Specs R1103	EMB	April 2014	County construction of Utilities Relocation Work pursuant to CCSF utilities relocation design incorporated within County Project No R1103
County / BRLO-5935 (053)	Underground Electric Construction	Specification Section 108-4 – County Specs R1103	EMB	April 2014	County construction of Utilities Relocation Work pursuant to CCSF utilities relocation design incorporated within County Project No R1103

EXHIBIT C

COOPERATION IN IMPLEMENTATION

County and CCSF shall cooperate in the following areas:

1. In connection with Bridge Replacement Project construction work, CCSF shall provide reasonable access to County on and across CCSF property located within 500 feet of any Bridge Replacement Project location described in Exhibit A-1 to allow County and/or its contractors to perform surveys relating to the presence, habitat, nests and/or dens of special status species.
2. If County requests, CCSF shall provide reasonable access to County onto CCSF property located within 500 feet of any Bridge Replacement Project location described in Exhibit A-1 pursuant to approved CEQA and permitting requirements, to allow installation of necessary noise barriers and vibration monitoring of structures adjacent to the construction zone.
3. Except as specified in the Utility Relocation Specifications, County shall ensure that no actions by or on behalf of County during the course of County's Bridge Replacement Project construction shall interfere with the full operation of Lower Crystal Springs Dam, CSSATS, and their respective appurtenant facilities.
4. During the course of County's Bridge Replacement Project construction, County shall cause its Bridge Contractor to ensure that adequate measures and procedures are adopted to protect the Lower Crystal Springs Dam and the Crystal Springs Reservoir from damage or contamination, including measures and procedures designed to prevent any materials or debris from falling into the reservoir and prevent damage to the adjacent Crystal Springs reservoir outlet and control facilities.
5. County shall cause its Bridge Contractor to submit to CCSF a Dam/Reservoir protection plan for SFPUC's review and concurrence prior to commencement of Bridge Replacement Project construction. Such a Dam/Reservoir protection plan shall include provisions of the SFPUC Watershed Land Protection Procedures (Field Manual) available from SFPUC Lands Resources Management. Once approved by CCSF (such approval not to be unreasonably withheld or delayed), County shall ensure that its Bridge Contractor and County's agents comply with all material provisions of such Dam/Reservoir protection plan.
6. County shall cause its Bridge Replacement Project to take all necessary measures to ensure that dam instrumentation (piezometer) and survey monuments are protected at all times during Bridge Replacement Project construction. County shall cause its Bridge Contractor to submit to CCSF a Dam Instrumentation Protection Plan for SFPUC's review and approval prior to commencement of Bridge Replacement Project construction. Once approved by CCSF (such approval not to be unreasonably withheld or delayed), County shall ensure that its Bridge Replacement Project contractor and County's agents comply with all material provisions of such a Dam Instrumentation Protection Plan.
7. County shall cause the Bridge Construction Contract to provide that County's Bridge Contractor shall be responsible for, and reimburse, indemnify, and hold CCSF harmless from, any and all costs, penalties, fines, or damages incurred or suffered by CCSF (including, without limitation, any lost revenues resulting from interruption of full operation of the Crystal Springs Reservoir, the Lower Crystal Springs Dam, CSSATS,

and their respective appurtenant instrumentation and facilities (collectively, the “**SFPUC Dam Facilities**”)) to the extent resulting from the Bridge Contractor’s acts or omissions that cause (a) the failure to restore the SFPUC Dam Facilities to full operation within the time specified in the Utility Relocation Specifications and, if implemented, the Relocation Work and/or any approved service interruption permits required in connection with the Utility Relocation Work or the Relocation Work; (b) any damage to or, except as specified in the Utility Relocation Specifications or the Relocation Specifications (if any), material interference with the operation of any of the SFPUC Dam Facilities; (c) any contamination of the waters within the Crystal Springs Reservoir, or (d) Contractor’s failure to comply with its obligations under the Bridge Construction Contract.

8. At all times during Bridge Replacement Project construction, County shall ensure that CCSF staff has safe and unimpeded access to the dam facility, including the top of the dam instrumentation and the spillway.
9. Prior to commencement of Bridge Replacement Project construction, County shall cause its Bridge Contractor to submit to CCSF for its review and approval (such approval not to be unreasonably withheld or delayed) (a) a Spillway, Parapet Wall, and Dam Access Protection Plan and (b) a Top of Dam Drainage System Protection Plan. Once approved by CCSF, County shall ensure that its Bridge Contractor and County’s agents comply with all material provisions of such Spillway, Parapet Wall, and Dam Access Protection Plan and Top of Dam Drainage System Protection Plan.
10. Prior to commencement of Bridge Replacement Project construction, County shall take all necessary measures to obtain from CCSF (including, without limitation, all measures stated in Specification Section 108-2 – County Specs R1103 as referenced in **Exhibit B-3**) any service interruption permits required in connection with the Utility Relocation Work or Bridge Replacement Project construction work, including causing County’s contractor to submit a Service Outage Request (SOR) and/or Access Request Forms (ARF) for any and all utility service interruptions required during the Bridge construction.
11. Prior to the commencement of Bridge Replacement Project construction work, CCSF shall work cooperatively with County’s Bridge Contractor to establish permit conditions, discharge locations, surface water management requirements, and discharge rates for groundwater and construction discharges. CCSF shall review County’s Bridge Contractor’s proposed discharge plan within a timely fashion, provide comments, and, when appropriate, approve as necessary. Once approved by CCSF, County shall ensure that its Bridge Contractor and County’s agents comply with all material provisions of such discharge plan.
12. Before commencement of Bridge Replacement Project construction, County will host, organize, and conduct a pre-construction conference among all governmental agencies with an interest in the Bridge or Dam Projects, including the following agencies, groups, or organizations:

Department	Area Covered	Contact Phone
SFPUC Bureau of Construction Management	CCSF Construction Oversight	(415) 554-1506
California Department of Water Resources – Division of Safety of Dams	Dam Safety & Regulation	(916) 227-4619
SMC Department of Public Works	Unincorporated County	(650) 363-4100
SMC Parks and Recreation Department	Sawyer Camp Trail	(650) 363-4020

SMC Sheriff's Department	Unincorporated County	(650) 363-4531
California Highway Patrol, CHP	Unincorporated County	
California Department of Forestry, CUFF	Unincorporated County	(831) 335-5353

13. Within thirty (30) days from the Effective Date, CCSF shall provide County with copies of all "as-built" drawings of the bridge pier connections on top of the Lower Crystal Springs Dam (i.e., the doweled anchors on the spillway).

EXHIBIT D

FORM OF CERTIFICATE OF COMPLETION AND ACCEPTANCE CERTIFICATE OF COMPLETION AND ACCEPTANCE

This Certificate of Completion and Acceptance is made by the CITY AND COUNTY OF SAN FRANCISCO, a California municipal corporation (“CCSF”), and the COUNTY OF SAN MATEO, a political subdivision of the State of California (“County”) with respect to certain improvements constructed by or on behalf of County in connection with the County’s construction of a replacement of the Skyline Boulevard Bridge atop Lower Crystal Springs Dam, which is located adjacent to the Crystal Springs reservoir in San Mateo County, California.

RECITALS

A. County and CCSF entered into that certain Memorandum of Agreement (“MOA”), dated for reference purposes only _____, 2015, with respect to the construction of County’s Skyline Boulevard Bridge Replacement Project atop Lower Crystal Springs Dam.

B. Section 2.5(f) of the MOA requires County to deliver and CCSF to execute a Certificate of Completion and Acceptance upon completion of construction of distinct phases of CCSF Bridge Project Work or the Relocation Work (if any) (as those terms are defined in the MOA).

C. CCSF has inspected the CCSF Bridge Project Work or the Relocation Work described as _____ [insert brief description – intersection(s) name(s), etc.] and more particularly described on **Exhibit 1** to this Certificate (the “Improvements”) and determined that the Improvements have been satisfactorily completed.

NOW THEREFORE, County and CCSF each certify as follows:

1. County certifies that, as of the date of this Certificate of Completion and Acceptance, it has assigned or is in the process of assigning all warranties and guaranties related to the Improvements as required by Section 2.5(f) of the MOA.

2. CCSF hereby accepts ownership and control of the Improvements, including responsibility for the operation and maintenance of the Improvements.

3. This Certificate is not a Notice of Completion as defined in California Civil Code Section 3093.

4. Nothing contained in this Certificate of Completion and Acceptance shall modify or alter in any way the provisions of the MOA.

DATED this _____ day of _____, 20____.

CITY AND COUNTY OF SAN FRANCISCO,
a California municipal corporation

By: _____

COUNTY OF SAN MATEO,
a political subdivision of the State of California a
California municipal corporation

By: _____

[Attach Exhibit 1]