

City of San Diego

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NB/CA/RIR



REQUEST FOR PROPOSAL (RFP)

FOR

OTAY WATER TREATMENT PLANT CONCRETE WORK DESIGN-BUILD CONTRACT

RFQ NO.: As-Needed Design-Build Services for the Engineering & Capital Projects Department – 5151DB
RFP NO.: 5581DBA
TASK ORDER NO.: 11DB01
BID NO.: K-12-5581-DBA-3
SAP NO. (WBS/IO/CC): S-11059
CLIENT DEPARTMENT: 2013
PROJECT TYPE: BI

PROPOSAL DUE:

12:00 NOON
APRIL 3, 2012
CITY OF SAN DIEGO
PUBLIC WORKS DEPARTMENT
1200 THIRD AVENUE, SUITE 200, MS 56P
SAN DIEGO, CA 92101
ATTN: CONTRACT SPECIALIST

TABLE OF CONTENTS

SECTION	PAGE NUMBER
1.0 INTRODUCTION	3
2.0 EQUAL OPPORTUNITY	3-4
3.0 PROJECT BACKGROUND AND DESCRIPTION.....	4
4.0 SCOPE OF REQUIRED WORK AND SERVICES	4
5.0 SELECTION PROCESS	4-8
6.0 POLICIES, PROCEDURES AND GUIDELINES.....	8-9
7.0 EVALUATION CRITERIA	9
8.0 SELECTION AND AWARD SCHEDULE	9
9.0 PRE-PROPOSAL ACTIVITIES	9-10
10.0 SPECIAL CONDITIONS.....	10-12
 ATTACHMENTS	
A PROJECT DESCRIPTION, SCOPE OF WORK, TECHNICAL SPECIFICATIONS, AND BRIDGING DOCUMENTS	13-57
B PROPOSAL SUBMITTAL REQUIREMENTS AND SELECTION CRITERIA.....	58-62
C CONTRACT FRONT END VOLUME 1	63-141
D CONTRACT FRONT END VOLUME 2	142-158

1.0 INTRODUCTION

- 1.1** This is the City of San Diego's (City) second step (in a 2-step process) in the selection process to provide Design-Build services for the **Otay Water Treatment Plant Concrete Work Design-Build Contract** (Project).
- 1.2** This RFP is being issued to the selected firms for this selection process exclusively. These firms are:
1. Ahrens Corporation/Lee & Ro
 2. Arrieta Construction/Tran Consulting
 3. Cass Construction/Rick Engineering
 4. Orion Construction/Harris & Associates
 5. Ortiz Corporation/RBF

Proposals from any other firms will not be considered for this process and will be rejected as unsolicited Proposals.

The Design-Builder shall ensure that Design-Builder's license(s) shall be valid when Proposal is submitted. Failure to comply with this requirement will result in:

- 1) The rejection of the Proposal.
 - 2) Removal of the Design-Builder from the short-list (for As-Needed Design-Build project).
- 1.3** Engineer's Estimate – The Engineer's estimate of the most probable price for this contract is in the range of **\$500,001 to \$750,000**.
- 1.4** This RFP describes the Project, the required scope of Work and Services, the Design-Builder selection process, and the minimum information that shall be included in the Proposal. Failure to submit information in accordance with this RFP's requirements and procedures may be cause for disqualification.
- 1.5** Any architectural firms, engineering firms, specialty consultants, or individuals retained by the City to assist in drafting the RFPs or the Project's preliminary design shall not be eligible to participate in the competition with any Design-Build Entity without the prior written consent of City. Any architectural firms, engineering firms, specialty consultants, or individuals retained by the City to assist in drafting any Reference Documents, such as the Water Department's Master Plan and any other document that was not prepared specifically for this contract, are considered to be eligible to participate.

2.0 EQUAL OPPORTUNITY

- 2.1** All information provided and requirements set forth in Section 2 of the Request for Qualifications (RFQ) for the Project shall apply to this RFP process. The Design-Builder shall review the information, data, and documentation provided in the Design-Builder's Statement of Qualification (SOQ) and changes shall be identified in the Proposal; otherwise the information, as previously submitted, will be deemed complete and accurate.

- 2.2 As set forth in this RFP, the City is dedicated to the principles of equal opportunity in the workplace and in subcontracting. It is the City’s expectation that firms doing business with the City have, and are able to demonstrate, the same level of commitment.
- 2.3 The Design-Builders are encouraged to take positive steps to diversify and expand their subcontractor solicitation base and to offer contracting opportunities to all eligible certified Subcontractors in accordance with the City’s EOCP requirements included in the Contract Documents.
- 2.4 The City has determined a **10% mandatory SLBE-ELBE** subcontracting participation. The City has also determined a **voluntary subcontractor participation of 10%**, equating to **20% in total subcontractor participation**, to enhance competition and maximize subcontracting opportunities. Percentages are based on the Contract Price, less Field Orders, Additive, Deductive, and Allowance Bid items

The Proposal shall be deemed **non-responsive** if it fails to meet the mandatory subcontracting participation shown above on the Subcontractor and Supplier listings submitted with the Bid or to submit good faith effort documentation within 3 Working Days after the Public Ranking meeting if Contractor fails to meet the SLBE-ELBE goal.

The Design-Builders’ commitment to the City’s principles of equal opportunity in achieving the desired subcontractor participation levels will be evaluated as specified in the RFP. See Attachment B, “Proposal Submittal Requirements and Selection Criteria” for more information.

3.0 **PROJECT BACKGROUND AND DESCRIPTION**

See Attachment A.

4.0 **SCOPE OF WORK AND SERVICES**

Work and Services required of the Design-Builder include those during design and construction of the Project. The Design-Builder shall provide all management, supervision, labor, services, equipment, tools, supplies, temporary facilities, and any other item of every kind and description required for the complete design and construction of the Project, as described in Attachment A.

5.0 **SELECTION PROCESS**

Each Design-Builder shall submit separate “Technical” and “Price” Proposals as described in this RFP.

5.1 Technical Proposal Requirements

5.1.1 Failure to comply with this section will render the Design-Builder's submittal invalid and disqualify it from this selection process.

5.1.2 The Technical Proposal shall be concise and well organized and shall demonstrate the Design-Builder's qualifications and experience applicable to the Project. Type size and margins for text pages shall be in accepted standard formats for desk top publishing and word processing and result in no more than 500 words per page.

NOTE: A cover letter may be submitted but SHALL not contain any information that is a required element of the Technical Proposal (i.e. acknowledgement of addenda)

5.1.3 The Design-Builder shall certify that the documentation required under the Work Force Report and Equal Employment Opportunity (EEO) Plan and the Subcontractor Documentation of the RFQ remains correct and accurate. If any changes or modifications are required to the aforementioned documents, they shall be documented in the Work Force Report and EEO Plan forms included in the Contract Documents as attachments and submitted with the Proposal.

The EOCP information not revealing the Contract Price shall be submitted with the Technical Proposal.

5.1.4 The Technical Proposals submitted in response to this RFP shall be in accordance with the requirements listed in Attachment B. The contents of the Proposal shall be organized consistent with the Attachment B.

5.2 Price Proposal Requirements

5.2.1 One executed original, clearly marked on the cover, of the Price Proposal shall be submitted in a separate sealed envelope. Refer to Attachment 'D' of this RFP for the Price Proposal form to be used.

5.2.2 The Price Proposal shall be signed by an individual or individuals authorized to execute legal documents on behalf of the Design-Builder.

5.2.3 The lowest proposed price is not the determining factor for award of this contract. See Attachment 'B' for criteria from which the proposals will be evaluated.

5.2.4 In case of discrepancies, written numbers will govern over numerical. The summation of all lump sum, unit prices, allowances and any other priced items will govern over the total price in case of discrepancies between the two.

- 5.2.5** Certain EOCP information (i.e., Subcontractors and Suppliers listings) that indicates the dollar value of the portions of the work to be performed by the Subcontractors and Suppliers shall be submitted as part of the Price Proposal.

5.3 Submittal Requirements

5.3.1 Technical Proposal

- 5.3.1.1** The Technical Proposal shall be received no later than the time and date shown on the cover of this RFP.

- 5.3.1.2** One executed original, clearly and conspicuously marked on the cover, and 6 copies are to be submitted in a sealed package marked “Technical Proposals” clearly and conspicuously in its face. The following information will be clearly marked on the outside of each package:

Name of Design-Builder

Project Title

“Technical Proposal” Package Number (e.g., 1 of 16, 2 of 16, etc.)
Marked “CONFIDENTIAL” (in red)

- 5.3.1.3** The Technical Proposal shall be signed by an individual or individuals authorized to execute legal documents on behalf of the Design-Builder.

The Design-Builder shall provide the names of the principal individual owners of the firm. In the event the firm is employee owned or publicly held, then the fact shall be stated and the names of the firm’s principals or officers shall be provided.

- 5.3.1.4** Failure to comply with the requirements of this RFP may result in disqualification.

- 5.3.1.5** Technical Proposals and modifications thereto received subsequent to the hour and date specified above will render the Design-Builder’s submittal invalid and will cause its disqualification from this selection process.

- 5.3.1.6** Proposals that deviate from the RFP and Bridging Documents supersede the RFP in accordance with 2-5.2, “Precedence of Contract Documents.”

Design elements which deviate from the scope of Work, City’s design guidelines, or material substitution which differs from the Approved Material List shall be highlighted in accordance with Attachment B, “Exception to this RFP” of the Proposal and brought to City’s attention during the presentation and interview.

5.3.1.7 Questions about the meaning or intent of the Contract Documents as related to the scope of Work and of technical nature shall be directed to the Project Manager prior to the Proposal due date. Interpretations or clarifications considered necessary by the Project Manager in response to such questions will be issued by Addenda, which will be uploaded to City's online service(s) e.g., e-Bidboard (or mailed or delivered to all parties recorded by the City as having received the Contract Documents).

Questions received less than 14 days prior to the Proposal due date may not be answered. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. It is the Bidder's responsibility to become informed of any addenda that have been issued and to include all such information in its Proposal.

5.3.2 Price Proposal

5.3.2.1 The Price Proposal shall be submitted separately from the Technical Proposal and shall be received no later than the time and date shown on the cover of this RFP.

Submittal of the Price Proposal after the date stipulated in this section will be cause for rejection of the entire Proposal and disqualification of the Design-Builder for this selection process.

5.3.2.2 The Price Proposal is to be submitted in sealed packages with the following information clearly marked on the outside of each package:

Name of Design-Builder
Project Title
"Price Proposal" Marked "CONFIDENTIAL" (in red)

5.3.2.3 Failure to comply with the requirements of this RFP may result in disqualification.

5.3.2.4 Price Proposals or modifications thereto received subsequent to the hour and date specified above will render the Design-Builder's submittals invalid and will cause their disqualification in the selection process.

5.4 Review of Technical Proposal

5.4.1 Following the receipt of the Technical Proposal, the City anticipates allotting 2 weeks for review of the Technical Proposals.

5.4.2 Subsequent to receipt, the City will provide written notice of the schedule for technical presentations. This schedule will be on a "random draw" basis and has no bearing on the potential for award.

5.5 Not Used.

5.6 Final Selection (Adjusted Low Bid)

5.6.1 The ranking of each Design-Builder during the Technical Proposal review and the Interviews will serve as a divisor of the Price Proposal submitted thereby determining weighted price.

5.6.2 Selection will be based on “Adjusted Low Bid”. Following review of the Technical Proposals, the resulting qualitative evaluation scores will be totaled on a scale of 0 to 100, and will be converted to a decimal (e.g., score of 85 is written as 0.85). After the scores have been calculated, each Design-Builder’s price envelope will be opened. The price will be divided by the score (expressed as a decimal) to yield the “Adjusted Low Bid”. The lowest adjusted bid will be recommended for Contract award. The adjustment to the Price Proposal is for selection purposes only. The Price Proposal as submitted is the actual Contract Price.

The following example summarizes and illustrates the process:

Design-Builder	Qualitative Score (100 Maximum)	Price Proposal	Adjusted Price *
A	0.85	\$1,000,000.00	\$1,176,471
B	0.95	\$1,300,000.00	\$1,368,421
C	0.65	\$900,000.00	\$1,384,615

* The adjustment to the Proposal is for selection only. Firm “A” has Adjusted Lowest Bid. The Price Proposal is the actual Contract amount.

5.6.3 The Design-Builders will be notified in writing of the City’s final decision.

6.0 POLICIES, PROCEDURES AND GUIDELINES

6.1 The Program's Selection Process is based on the policies, procedures and guidelines contained in the City Municipal Code Chapter 2, Article 2, Division 33.

6.2 A Ranking Panel (Panel) will be established for this project and will include representatives from the City and may include other interested parties (e.g., Participating Agencies, representative from the Community at Large, as required and other agencies e.g., the State Water Resource Control Board, etc.).

6.3 The Panel will review all proposals received and when required interview each Design-Builder in accordance with Attachment ‘B’ of this RFP. Based on the Design-Builder's Proposal, interview and the Project’s Evaluation Criteria, the Panel will rank the Design-Builders as to qualifications in a public meeting. The Panel will forward its ranked listing of Design-Builders to the Mayor or designee. The public meeting will be held at 2:30 PM at Public Works Department, 1200 Third Avenue, Suite 200, San Diego, California, 92101 as scheduled in Section 8.

6.4 The Mayor or designee will make the final recommendation to City Council concerning the proposed agreement. The City Council has the final authority to approve the Contract.

7.0 EVALUATION CRITERIA

The evaluation criteria and the respective weights that will be given to each criterion are attached as Attachment 'B'.

8.0 SELECTION AND AWARD SCHEDULE

The City anticipates that the process for selecting a Design-Builder, and awarding the contract, will be according to the following tentative schedule:

8.1	Pre-Proposal Meeting	March 15, 2012
8.2	Proposal Due Date	April 3, 2012
8.3	Public Ranking Meeting	April 19, 2012
8.4	Selection and Notification	May 3, 2012
8.5	Receipt of Bonds and Insurance Certificates	May 14, 2012
8.6	Notice to Proceed	June 21, 2012

9.0 PRE-PROPOSAL ACTIVITIES

9.1 **Questions Concerning RFP**

All questions regarding the RFP shall be presented in writing to the PM at the USPS or the e-mail address identified on the cover sheet of the RFP.

9.2 **Pre-Proposal Meeting**

A Pre-Proposal meeting will be held from 10:00 AM to 11:00 AM, at 1200 Third Avenue, Suite 200, large conference room, San Diego, CA, 92101. All potential responders are **encouraged** to attend. Any materials distributed at the meeting will be issued to all RFP recipients in the form of an addendum to this RFP. It is not necessary for all members of a Design-Builder's team to be present at the Pre-Proposal Meeting, however, the Design-Builder will be held accountable for receiving and applying all information discussed at the Pre- Proposal Meeting.

Bid shall be considered non-responsive if the Design-Builder fails to attend the Pre-Proposal Meeting as evidenced by the City's meeting sign-in sheet when such a meeting has been specified to be required.

9.3 **Pre-Proposal Site Visit.**

The Design-Builders are encouraged to visit the Work Site with the Engineer. The purpose of the Site Visit is to acquaint Design-Builders with the Site conditions. To request a sign language or oral interpreter for this visit, call the Public Works Contracting Group at (619) 236-6000 at least 5 Working Days prior to the meeting to ensure availability. A Pre-Proposal Site Visit is scheduled as follows:

Time: 1:30 P.M.
Date: March 15, 2012
Location: Otay Water Treatment Plant
1500 Wueste Road
Chula Vista, CA 91915

9.4 Revision to the RFP

The City reserves the right to revise the RFP prior to the date that Proposals are due. Revisions to the RFP will be mailed to all RFP holders. The City reserves the right to extend the date by which the Proposals are due.

10.0 SPECIAL CONDITIONS

10.1 Reservations

This RFP does not commit the City to award a contract, to defray any costs incurred in the preparation of a Proposal pursuant to this RFP, or to procure or contract for Work.

10.2 Public Records

After the selection process is complete and a contract is signed between the City and the winning Design-Builder, all Proposals submitted in response to this RFP become the property of the City and public records, and as such may be subject to public view.

10.3 Right to Cancel

The City reserves the right to cancel, in part or in its entirety, this RFP including but not limited to: selection schedule, submittal date, and submittal requirements. If the City cancels or revises the RFP, all Design-Builders will be notified in writing by the City.

10.4 Additional Information

The City reserves the right to request additional information or clarifications from or interview any or all Design-Builders.

10.5 Public Information

Release of Public Information - Selection announcements, contract awards, and all data provided by the City shall be protected from public disclosure. Design-Builders desiring to release information to the public, shall receive prior written approval from the City.

10.6 Changes to Key Personnel and Substitution of Subcontractors

10.6.1 The Design-Builder shall not change or substitute any individual that is identified as “key personnel” in its SOQ and Proposal without the written consent of the City.

10.6.2 The Design-Builder shall not change or substitute any material, Supplier Subconsultants, or Subcontractor identified in its SOQ and Proposal without written consent of the City.

10.7 Use of Reference Documents and Pre-Design Reports

10.7.1 The City has made available As-Built Plans and Reference Documents related to the Project. Use of these reports shall be for general project background information only, and shall be used at the Design-Builder's risk. No responsibility is assumed by the City for the completeness or accuracy of these reports.

10.7.2 The following documents are attached to the Scope of Work (Attachment 'A'):

- a. Appendix A Technical Specifications, Scope of Work
- b. Appendix B Location Map
- c. Appendix C Mitigated Negative Declaration

10.8 Use of Computer Aided Drafting and Design (CADD)

The Design-Builder shall use CADD. CADD drawings, figures, and other work shall be produced by the Design-Builder using MicroStation software. Conversions of CADD work from any other non-standard CADD format to City standard MicroStation format shall not be acceptable in lieu of this requirement unless specified otherwise in the Contract Documents. Refer to City's CADD Standards for detailed requirements.

10.9 Scheduling and Management Reporting Systems

The Design-Builder will be required to use the latest version of the Primavera Project Management and Scheduling Software or equal.

10.9.1 The City will require the Design-Builder to submit and maintain a task-oriented computerized schedule for completing the Work over the life of the Project.

10.9.2 The Design-Builder shall anticipate that the development of this schedule will require at least 3 steps; (1) development of a work breakdown structure by the Design-Builder and submittal to the City for review; (2) development of interface procedures (and software, if necessary) to communicate from the Design-Builder's computer networking software to the City's networking software (Primavera), and (3) development of an activity network for submittal to the City for review and concurrence.

10.9.3 The Design-Builder shall be required to furnish activity status and network updates on disks in a format that will interface with the City's scheduling system. The City will utilize the schedule information supplied by the Design-Builder in to review progress payments and to monitor the progress of the project against the agreed schedule requirements.

10.10 Project Schedule

10.10.1 The City has established the following tentative milestones for the Project:

- a. Approve project schedule (Primavera) June 2012
- b. Issue Notice of Completion May 2013

For the Contract Time refer to Contract Front End Volume 1, Invitation to Bids (see Attachments).

10.11 Acknowledgement of Addenda

The Design-Builder shall confirm in its Proposal the receipt of all addenda issued to this RFP. Failure to acknowledge all addenda issued, will result in the Proposal being considered non-responsive and ineligible for further consideration.

10.12 The agreement, terms and conditions are included in The City’s Front End Contract Documents Volume 1 and 2, The GREENBOOK Part 1, and The WHITEBOOK e.g., the City Supplement.

ATTACHMENT A

**PROJECT DESCRIPTION, SCOPE OF WORK, TECHNICAL SPECIFICATIONS, AND
BRIDGING DOCUMENTS**

ATTACHMENT A

PROJECT DESCRIPTION, SCOPE OF WORK, TECHNICAL SPECIFICATIONS, AND BRIDGING DOCUMENTS

PUBLIC WORKS DEPARTMENT

1.0 Project Description:

The Otay Water Treatment Plant Concrete Work Project provides for concrete repair and protective coating for the Flocculation and Sedimentation Basins 1 and 2 at City of San Diego Otay Water Treatment Plant.

2.0 Scope of Work:

The project includes the surface preparation, resurfacing, and the application of a pinhole free protective coating to the specified interior substrates located at Otay Water Treatment Plant. Surface preparation and coating shall be applied to concrete and steel surfaces of the basins. The specific area to be coated includes, but is not limited to, concrete floors, walls, and columns of the High and Low Speed Flocculation and Sedimentation Basins. All carbon steel components within these areas such as valves, piping, supports, plates and strips shall be coated utilizing the specified coating system. The existing surfaces have been previously coated with a 100% solids epoxy. In addition, new coatings shall be applied to the two movable bridges associated with each sedimentation basin.

Before concrete and steel surfaces are coated, the existing coatings shall be hydroblasted to remove any loose, delaminated, and disbonded coating. Final surface preparation shall be done by abrasive blasting. The contractor shall coordinate his work schedule with the construction manager and the plant superintendent based on the operational supply demands and shutdowns of the plant. The concrete surfaces to be coated are about 47,100 SF. The total surface area to be coated for both steel moving bridges is approximately 6,000 square feet. The area of the bridges to be coated is exposed to the atmosphere and is carbon steel. No stainless steel is to be coated. In addition, the existing backer rod and sealant shall be removed from the floor joints inside the mixing and sedimentation basins. Polyurethane sealant shall be applied to seal the floor joints after the appropriate size and type of backer rod has been installed. There is approximately 1600 feet of floor joints as part of this project. Refer to Appendix a section 9810 for additional details. The work shall be performed per section 9810 of Technical Specifications, Part 1.1 Scope of Work of Appendix A.

The design builder shall hire a corrosion engineer, who has prior experience in coating and restoration of water and wastewater facilities to design the project. The corrosion engineer shall review the specification included in section 9810 and assure that it meets the current industry standard. The design-builder shall contact the project manager if he/ she have comments or revisions to section 9810.

3.0 Reference Standards:

Except as otherwise noted or specified, the Work shall be completed in accordance with the following standards:

1. STANDARD SPECIFICATIONS

Document No.	Filed	Description
PITS0504091	05-04-09	Standard Specifications for Public Works Construction (The GREENBOOK), 2009 Edition
PITS090110-1	09-01-10	City of San Diego Standard Specifications for Public Works Construction (The WHITEBOOK), 2010 Update *
AEC1231064	12-31-06	California Department of Transportation, Manual of Uniform Traffic Control Devices (MUTCD 2006)
769023	09-11-84	Standard Federal Equal Employment Opportunity Construction Contract Specifications and the Equal Opportunity Clause

NOTE: The City of San Diego Supplement, 2010 Update now consolidates various City Public Works Construction Standard Specifications which in the past were included in the Supplementary Special Provisions. The Bidders' attention is directed to this edition of the City Supplement for a close review to ensure no important information is missed for the preparation of the Bids.

2. STANDARD DRAWINGS

Document No.	Filed	Description
AEC1230163	12-31-06	City of San Diego Standard Drawings*
N/A	Varies	City Standard Drawings - Updates Approved For Use (when specified)*
AEC0925061	09-25-06	Caltrans 2006 U.S. Customary Unit Standard Plans

NOTE: *Available online under Engineering Documents and References at: <http://www.sandiego.gov/engineering-cip>.

APPENDIX A
TECHNICAL SPECIFICATION

SECTION 9810

CONCRETE REPAIR AND PROTECTIVE COATING APPLICATION

PART 1 - GENERAL

1.1 SCOPE OF WORK

The scope of work for this project includes the surface preparation, resurfacing, and the application of a pinhole free protective coating to the specified interior substrates located at the City of San Diego’s Otay Water Filtration Plant. Surface preparation and coatings shall be applied to concrete surfaces in direct contact with the process water during normal production operations. The specific areas to be coated shall include, but not be limited to, the concrete floors, walls, and columns of the High and Low Speed Flocculation Basins, and Sedimentation Basins. All carbon steel components within these areas such as valves, piping, supports, plates and strips shall be coated utilizing the specified coating system. The existing surfaces have been previously coated with a 100% solids epoxy. Before concrete and steel surfaces are coated, the existing coating shall be hydroblasted to remove any loose, delaminated, and disbanded coating. Final surface preparation shall be by sand blasting. In addition, both steel, moving bridges shall be coated. The Contractor shall coordinate his work schedule with the Plant Superintendent based on the operational supply demands and shutdowns of the filtration plant. The concrete surfaces to be coated include:

Description	Areas to be Coated	Approximate Surface Area (Ft ²)
High Speed Flocculation Basins (2)	Floor	2,800
	Side Walls	650
	End Wall	1,300
	Columns	650
	Subtotal	5,400
Low Speed Flocculation Basins (2)	Floor	2,800
	Side Walls	650
	Columns	650
	Subtotal	4,100
Sedimentation Basins (2)	Floor	16,100
	Side Walls	19,800
	End Wall	1,700
		37,600
Total Surface Area:		47,100

The total surface area to be coated for both steel moving bridges is approximately 6,000 square feet. The area to be coated is exposed to the atmosphere and is carbon steel. No stainless steel is to be coated.

In addition, the existing backer rod and sealant shall be removed from the floor joints inside the mixing and sedimentation basins Polyurethane sealant shall be applied to seal the floor

joints after the appropriate size and type of backer rod has been installed. There is approximately 1600 feet of floor joints as part of this project.

1.2 PRECONSTRUCTION MEETING

Prior to the beginning of any construction activities, including mobilization, the Contractor shall attend a mandatory preconstruction meeting. The meeting shall be arranged by the City’s Resident Engineer. The Contractor shall be notified of the time and location of the meeting. As a minimum, the Contractor personnel attending the preconstruction meeting shall include the Project Manager, Quality Control Manager (QCMM), Job Foreman, Safety Officer, and a representative from each sub-contractor to be used. In addition, a representative from the selected coating manufacturer is required to attend the preconstruction meeting. Also in attendance, at the discretion of the City, shall be the City Resident Engineer and/or his designated representative, Plant Superintendent, and the third-party CIP Level 3 Coating Inspector. The purpose of the meeting is to discuss the scope of the project, project timing and scheduling, third-party inspections, clarify questions by the Contractor and product manufacturer’s, and develop an understanding of the required final finished product.

1.3 APPLICABLE PUBLICATIONS AND STANDARDS

The documents listed below are applicable to this specification and shall be used as acceptance criteria by the City and by the Inspection personnel to monitor the performance of the work. Should a conflict occur between this specification and the references, this specification shall govern. Clarification or concerns shall be directed to the City Resident Engineer or his site designated representative.

A. Steel Structures Painting Council (SSPC) - Specifications

SSPC - Guide to VIS 1	“Pictorial Surface Preparation Standards for Painting Steel Surfaces”, 1982
SSPC-SP1	Surface preparation Specification No. 1 “Solvent Cleaning”, 1982
SSPC-SP2	Surface preparation Specification No. 2 “Hand Tool Cleaning”, 1982
SSPC-SP3	Surface preparation Specification No. 3 “Power Tool Cleaning”, 1982
SSPC-SP10	Surface preparation Specification No. 10 “Near White Blast Cleaning”, 1982
SSPC-PA1	Paint application Specification No. 1 “Shop, Field and Maintenance Painting”, 1982
SSPC-PA2	Paint application Specification No. 2 “Measurement of Dry Paint Thickness with Magnetic Gages”, 1982
SSPC-PA3	Paint application Specification No. 3, “A Guide to Safety in Paint Application”, 1982

B. NACE International (NACE)

NACE RP-0178	“Fabrication Details, Surface finish Requirements, and Design Considerations for Tanks and Vessels Lined for Immersion Service”
NACE RP-0188	“Standard Recommended Practice for Discontinuity (Holiday) Testing of Protective Coatings”
NACE RP-0287	“Standard Recommended Practice for Field Measurement of Abrasive Blast Cleaned Steel Surfaces Using Replica Tape”
NACE TM-01-70	“Visual Standard for Surfaces of New Steel Airblast Cleaned with Sand Abrasive”

C. American Society for Testing and Materials (ASTM)

ASTM G 3	Guide for Measurement of Half Cell Potential Tests.
ASTM G 33	Aggregate Sizing for Concrete.
ASTM C 109	Measurement of Compressive Strength (modified)
ASTM C 293	Measurement of Flexural Strength (Modules of Rupture)
ASTM C 496	Measurement of Tensile Strength (Splitting)
ASTM C 522	Measurement of Elongation
ASTM D 70	Measurement of Total Water Absorption
ASTM C 666	Measurement of Rapid Freeze / Than Durability (Procedure A)
ASTM C 882	Measurement of Bond Strength (Modified)
ASTM C 883	Measurement of Shrinkage
ASTM C 884	Measurement of Thermal Compatibility (Modified)
ASTM D 968	Measurement of Abrasion Resistance
ASTM D 3359	Standard Methods for Measurement of Adhesion by Tape Test
ASTM D 4258	Standard Practice for Surface Cleaning Concrete for Coating
ASTM D 4259	Standard Practice for Abrading Concrete
ASTM D 4285	Standard Method for Indicating Oil or Water in Compressed Air
ASTM C 1247	Standard Test Method for Durability of Sealants Exposed to Continuous Immersion in Liquids

ASTM C 679	Standard Test Method for Tack-Free Time of Elastomeric Sealants
ASTM C 717	Standard Terminology of Building Seals and Sealants
ASTM C 1193	Standard Guide for Use of Joint Sealants

D. Occupational Safety and Health Agency (OSHA)

OSHA 29CFR 1910	“Occupational Safety and Health Standards” Chapter 17
OSHA 29CFR 1926	“Safety and Health Regulations for Construction”

E. American National Standards Institute/National Sanitation Foundation (ANSI/NSF)

Standard 61	“Drinking Water System Components - Health Effects”
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1.4 DEFINITIONS

- A. QCM - The Contractor’s designated quality control inspector/manager responsible to perform all quality control functions during the coating operation
- B. CSI - An on-site, independent third-party Coating Specialist Inspector supplied by the City. The Coating Inspector shall be a NACE International Certified Level III Inspector with a minimum of 10 years experience in surface preparation and protective coating applications on industrial projects.
- C. Dew Point - The temperature of a surface, at a given ambient temperature and relative humidity, at which condensation of moisture will occur
- D. DFT - Dry Film Thickness
- E. Efflorescence - Water soluble salts, deposited as moisture evaporates, on the exterior surface of brick or concrete
- F. Hold Point Inspections – a period of time where the work in progress is halted long enough to allow the CSI to conduct their inspections.
- G. Holiday - Any discontinuity, bare or thin spot in a painted area
- H. Laitance - An accumulation of fine particles, loosely bonded, deposited on the surface of fresh concrete, caused by the upward movement of water
- I. Orange Peel - The dimpled appearance of a dried paint film resembling the peel of an orange
- J. Owner - The term “Owner” shall refer to the City of San Diego or their designated representative
- K. Pinholing - A film defect characterized by small, pore-like flaws in a coating which extend entirely through the film

- L. Pot Life - The length of time a paint material is useful after its original package is opened or a catalyst or their curing agent is added
- M. Shelf Life - The maximum time interval in which a material may be kept in a usable condition during storage.
- N. Vapor Barrier - A moisture-impervious layer which prevents the passage of water into a material or structure

1.5 SUBMITTALS

The following information shall be submitted for approval of the Engineer as specified by SECTION 2-5.3. This information shall be submitted with clear references to the applicable specification paragraphs. The title shall clearly give the project name, identify the system specification number, and the Contractor's name and address.

A. Catalog Cuts

- 1. Abrasive Blast Media
- 2. Polymer Modified Portland Cement-Mortar Materials
- 3. 100% Solids Epoxy Coating Material
- 4. Epoxy Primer for 100% Solids Epoxy Coating
- 5. Backer Rod
- 6. Polyurethane Joint Sealant
- 7. Need to add the coating system for the steel moving bridge

B. Shop Drawings

- 1. Coating Application Detailing At Expansion Joints
- 2. Coating Application Detailing At Corners

C. Samples

- 1. Three (3) coating color samples for the proposed coating system for both the 100% Solids Epoxy Coating Material and the Epoxy Primer. All coating colors submitted shall be ANSI/NSF 61 approved for use in potable water.

D. Coating Contractor Qualifications

- 1. Copy of a valid State of California C-33 license as required for the application of coatings.
- 2. Five (5) references which show the Painting Contractor has demonstrated successful application of the specified coating system type in the recent past. Provide the name, address, and telephone number of the owner of each installation. The references shall be submitted to the City Engineer for review and verification prior to initiation of the work.
- 3. The Contractor's on-site supervisory personnel shall sign a certification letter stating they have read, and understand, this Specification plus the SSPC,

NACE International, ASTM, and ANSI/NSF standards referenced herein. This statement shall be furnished to the City prior to initiation of the work.

E. Documents to be submitted by the Bidder

1. The Bidder shall submit a Work Schedule consisting of a graduated work progress timeline which shall show the proposed number and duration of shifts, man loading and key milestones for the Project. This schedule should include, but not be limited to, the start and completion dates for all major events or activities. The Bidder will review his detailed schedule with the City Engineer prior to submission to ensure plant scheduling compatibility.
2. The Bidder shall submit an Equipment List of all equipment considered essential to maintaining the schedule of the Project. The extent to which redundant back-up equipment will be available shall be detailed. If back-up equipment will not be on site, source and availability shall be referenced. All dehumidification, air circulating and heating equipment required for environmental control shall be included in the Equipment List.
3. The Bidder shall submit a Guarantee Warranty.

F. Documents to be submitted prior to Project startup

1. The Contractor shall submit to the City Resident Engineer the names of the Contractor's Project Manager, Superintendent, and Crew Foreman 15 days prior to Project startup.
2. Contractor shall submit to the City Resident Engineer, the name of the designated Safety Coordinator 15 days prior to Project startup.
3. The Contractor shall submit to the City Resident Engineer, pertinent coating product data sheets, material safety data sheets, and product force cure time and temperature tables for the coating materials selected 15 days prior to Project startup.
4. Contractor shall submit to the City Resident Engineer a sample of the blast abrasives to be used along with pertinent product data sheets 15 days prior to Project startup.
5. Contractor shall submit to the City Resident Engineer, a list identifying any other solvent(s), detergent(s), buffer(s), cleaner(s), emulsion(s), or other materials to be utilized on site. Manufacturer's information, data sheets, and usage details are required.

- G. Documents to be submitted upon completion of the Project
 - 1. Contractor shall submit a copy of the inspection notes from the third party coating inspector.

1.6 PROTECTION OF SURFACES NOT TO BE COATED

- A. The Contractor shall prevent abrasive grit, dirt, and blast debris from entering plant areas other than the areas to be coated. Prior to blast cleaning in the area, the Contractor shall place suitable shields, covers, rags or other means to prevent the entry of foreign materials into areas beyond collection points.
- B. The Contractor shall likewise protect painted areas not requiring repainting under this Contract from a direct or indirect (ricocheting) abrasive blasting. Previously painted areas in Contractor's work sequence shall also be protected from damage due to subsequent abrasive blasting.
- C. Any handrails or other appurtenances that cannot be easily removed shall be protected. Therefore, Contractor shall take special precautions not to damage the handrail, or process sensors.

1.7 PRELIMINARY PREPARATIONS

The City shall be responsible for taking the subject basins out of service, for safety and other procedures for the electrical lock-out and tag-out requirements for the basins, pumps, motors, and equipment for the duration of coating related services. The Contractor shall coordinate with the City, the schedule and timing for taking basins out of service and shall be at the discretion and operational requirement of the City.

1.8 SERVICES OF MANUFACTURER

The Contractor shall require the coating manufacturers to furnish the following services during the course of the project at no additional cost to the City.

- A. The manufacturer's representative shall provide at least 8 hours of on-site observation and site specific recommendations relative to surface preparation, mixing, application, and curing of the specified product to be applied on the carbon steel and concrete surfaces scheduled for coating.
- B. The manufacturer's representative shall provide technical support to resolve field problems associated with the manufacturer's materials furnished under this Contract. Additional technical support for application related problems may be requested as, and when, needed.

1.9 CONTRACTOR QUALITY CONTROL, INSPECTION, AND TESTING

A. General

Quality and workmanship cannot be consistently produced simply by the development of a written program or the training of a few people in a given organization. Quality must be filtered down into the work process and to the

workmen levels to be integrated into the finished product. The Contractors front line and supervisory personnel must fully understand and implement the specific quality objectives so that the final work product will ensure the engineering, design and service life expectations of the protective coating materials will be met or exceeded. The Contractor's project manager and superintendent in cooperation with the contractor's quality control persons shall be familiar with all the stated requirements and shall assign one individual to perform the quality control functions. The overall goal of quality control is to assure that the application work process produces a usable finished product that satisfies the specified objectives of the protective coating project. Ultimately, the implementation and strict enforcement of a quality oriented program will not only verify conformance to the project requirements, but will assure the work process is completed on schedule and within budget.

B. Quality Control Responsibilities

The Contractor's project manager and other designated representatives shall be responsible to perform all quality control functions to include, but not limited to, establishment of a Quality Control Program, (appointment of a Quality Control Manager (QCM Inspector), a letter of authority and reporting functions, job specific details of inspection and testing procedures, corrective actions, equipment to be utilized and calibration records for instruments to be used. The formal written program must be submitted to the City prior to the start of work.

C. Quality Control Equipment

The Contractor's QCM or other designated representative shall be informed, knowledgeable, and must demonstrate the capability to calibrate and properly use all QC equipment. The Contractor's QC instrumentation shall include, but not limited to, wet film and dry film thickness gauges, calibration 10 standards, sling psychrometer, psychrometric charts, surface thermometer, low voltage wet sponge holiday detector, high voltage holiday detector, Testex replica tape and suitable micrometer, visual standards and comparators.

D. Quality Control of Abrasive Blasting Operations

1. The Contractor's QCM or designated representative is responsible for daily examination of the compressed air supply in accordance with ASTM D 4285 to determine that the air is free from detrimental amounts of water, and is free from any visually observable amount of oil.
2. The Contractor's QCM or designated representative is responsible for daily examination of each nozzle operator's work production so that it meets Specification requirements in terms of profile and surface cleanliness.
3. The Contractor's QCM or designated representative is responsible for examination of abrasive blasted surfaces, so that adjacent previously primed areas have not been damaged by overblast, or that these damaged areas have been repaired in accordance with approved procedures.

E. Quality Control of Coatings Operations

1. The Contractor's QCM or designated representative shall be qualified and experienced in the use of a sling psychrometer and psychrometric tables to determine that the temperature of the surfaces designated to receive protective coatings is not less than 5° F above the dew point of the ambient air. Determination of the dew point and surface temperature shall be made immediately prior to commencement of any coating work.
2. The Contractor's QCM or designated representative shall examine all surfaces to be coated prior to application to insure that these surfaces are clean, dry, and free from dust or other contaminants.
3. The Contractor's QCM or designated representative shall insure that the application crew understands how to use wet film gauges in coatings application, and that each painter is furnished with, and does use a wet film gauge in work process. The QCM or designated representative will also take wet film thickness readings during application of each coating to ensure the application will meet Specification requirements.
4. The Contractor's QCM or designated representative shall determine that each coat has satisfied the manufacturer's minimum re-coat times, prior to application of the succeeding coat. Maximum re-coat times shall not be exceeded since additional surface preparation may be required. The City's CSI or Resident Engineer shall be notified if or when the maximum re-coat window is exceeded.
5. The Contractor's QCM or designated representative shall determine that the coating dry film thickness (DFT) test is in accordance with the Specification requirements. Areas testing below the minimum specified DFT will be repaired by adding sufficient material to conform to Specification requirements. Repairs shall follow manufacturer's re-coat times closely and shall be accomplished prior to the final forced cure.
6. The Contractor's QCM or designated representative shall determine that the final coating is free from pinholes, blisters, dry spray, or other surface defects prior to the final forced cure. Appropriate re-work or repairs shall be required.
7. The Contractor's QCM or designated representative shall determine that the applied coating is holiday free prior to force cure by testing with a 67 ½ volt DC (80,000 ohm resistance) wet sponge Holiday Detector in accordance with NACE Standard RP-0188 on steel substrates. Holiday detection by testing with high voltage equipment will be required on concrete substrates. A general rule of thumb for the voltage set is 100 volts per (1) mil of coating thickness in terms of DFT. (i.e., a 16 mil DFT application would require a minimum of 1600 volts). The coating shall be 100% holiday free. Any defects detected shall be marked with chalk and repaired by removing the coating at the spot down to the depth of the defect with a grinding or deburring tip, feather edging the exposed area by sanding, and applying two coats of the applicable coating material. Repairs shall then be tested for holidays as above, when dry.

1.10 HEALTH AND SAFETY

A. General

The Contractor shall take all necessary precautions for the safety of employees on the work site, and shall comply with all applicable plant, federal, state, and municipal safety laws and codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed. The Contractor shall cooperate with the Company's safety programs and shall be familiar with the requirements of SSPC-PA Guide 3, "A Guide to Safety in Paint Application". In addition, the Contractor shall comply with the following items.

- B. The Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workmen and public, and shall post "Danger Sandblast and Painting Operations" signs to warn against the hazards created by the construction.
- C. The Contractor shall designate a responsible member of its organization at the work site as a Safety Coordinator, whose duty shall be the prevention of accidents. The name and position of the person so designated shall be reported to the City Resident Engineer 15 days prior to initiation of the Project.
- D. The Contractor shall provide and maintain on the job site location a complete set of Manufacturer Safety Data Sheets (MSDS) for all materials brought on to the site. Additionally, a full set of these Specifications, including all codes, standards, and references shall be available on the project site through the duration of the work.
- E. All pressure vessels, such as sand hoppers and compressed air volume tanks shall be protected from over-pressurization with automatic pressure relieving devices.
- F. At all times, the work site and adjacent premises shall be kept free from accumulation of waste materials or rubbish caused by Contractor employees or work process, and at the completion of the work, the Contractor shall remove all waste from around the job site. All tools and surplus materials must be removed, leaving the premises in a neat and orderly condition.
- G. The Contractor shall provide and install sufficient scaffolding and staging to provide easy access during surface preparation, coating application and inspection of all surfaces. The rigging structure shall be constructed so that the workers will have free use of body and arms, and shall comply with all applicable OSHA requirements.
- H. The Contractor shall examine thoroughly, all scaffolding and lighting equipment and accessories for their safe and usable condition. Frayed, loose and other defective equipment shall be replaced with new and safe apparatus.
- I. A safe area shall be established and clearly identified for handling and storage of all flammable materials and for waste disposal. No source of ignition shall be permitted within the safe area at any time. Proper signs shall be posted.

- J. The Contractor's QCM shall ensure that all waste paints and solvents are disposed of in 55 gallon drums furnished by the Contractor. These wastes will be disposed in accordance with applicable City, County, State, and Federal regulations.

1.11 INSPECTION AND TESTING

A. General

The City will provide a third party Coating Specialist Inspector (CSI) to verify compliance with the Specification. Contractor shall give the CSI five (5) days advance notice of the start of any surface preparation work or coating application work. All such work shall be performed in the presence of the CSI unless the CSI has granted prior approval to perform such work in his / her absence. The CSI shall be given a reasonable time between phases of the work to perform the inspection requirements, such as verifications, repairs, re-work and documentation.

1. The City will provide the CSI secure quarters with a desk for preparation of reports and storage of inspection instruments.
2. The CSI shall perform all inspections necessary to assure that surface preparation and coating application comply with the requirements of this Specification. All work performed on this project shall be subject to inspection. All inspection records shall be kept current and shall be submitted to the City as outlined in the pre-job conference.
3. Contractor Support of CSI - Contractor shall cooperate with the CSI and shall, in addition to providing sufficient time for inspection, shall provide all scaffolding, ladders, lighting and manual aid wherever required in order to facilitate the CSI's inspections, and must repair any areas damaged during the performance of the testing operations. The CSI will exercise responsible judgment in the use of destructive tests and will keep such testing to the minimum required to assure coating of high integrity. Destructive testing will only be employed to resolve disputes.
4. Formal inspection by the CSI does not relieve the Contractor from performance of the specified Quality Control procedures. The CSI shall be the final judge of the acceptability of surface preparation and coating material application.
5. Removal and Repair of Unsatisfactory Coatings - If, during the procession of the work, the Inspector determines that the Contractor's methods of surface preparation and paint application do not conform to the Contractor's procedures or the intent of this Specification, the Contractor shall remove and repair the substandard coating to the CSI's satisfaction at no additional cost to the City.

B. Contractor Inspection at the End of 1-Year

1. In addition to the above inspection, within 1-year of the acceptance of the work, the various portions of the plant shall be drained and re-inspected in the presence of the Contractor.
2. Contractor shall be given 30 calendar days advance notice of this inspection. Insofar as may be possible, both the City and the Contractor will have available the same supervisory and inspection personnel as were present for the original work. This inspection group shall include a representative of the material manufacturer.
3. Contractor shall, within 90 calendar days of this inspection, complete all required coating repair.
4. All defective coatings shall be repaired by Contractor using coating materials, equipment and methods similar to those used in the original work. Materials shall be of fresh manufacture and within the manufacturer's stated shelf life at the time of application.

C. Hold Point Inspections

Hold Point inspections will be performed by the CSI. The Contractor's QCM and crew foreman shall notify the CSI when the work has progressed to the point where the Hold Point inspection can be performed. The CSI will discuss with QCM anything that may lead to rejection of work in progress. The CSI will apprise the QCM of his conclusion regarding any testing that may be performed. No further work on the surface area undergoing Hold Point inspection shall be performed until the item inspected has been judged acceptable by the CSI. The fact that the CSI may inadvertently overlook a deviation from some requirement of this Specification shall not constitute a waiver of the requirement or the Contractor's obligation to correct the condition, even if it is discovered after the fact. The following Hold Points are established for the surface preparation, concrete repair, and coatings application for this project.

1. Hold Point following abrasive blast cleaning, after blowdown or vacuum, and prior to application of repair materials and the first coat of lining material.
 - a. All substrates on which abrasive blasting has been performed shall be inspected for degree of cleanliness, soundness, profile and uniformity of anchor pattern as required by the Specification.
 - b. Concrete surfaces shall be examined for bugholes, cracks, cavities, voids, and other defects. These defects shall be identified and categorized, and the degree of repair and resurfacing shall be determined.
 - c. Deficiencies shall be marked with chalk and corrected by the Contractor to the satisfaction of the CSI.

2. Hold Point following application of the prime coat of lining material and prior to application of the succeeding coat of lining material.
 - a. All substrates which have received application of the prime coat of the coating material shall be examined by the CSI to determine that no contamination or inclusions of particles in the material has occurred.
 - b. Deficiencies shall be marked with chalk and corrected by the Contractor to the satisfaction of the Inspector.
 - c. Cure times and re-coat times shall be observed in accordance with the material manufacturer's recommendations.
3. Hold Point following completion of DFT repairs and / or Holiday Testing repairs in the final coat.
 - a. All substrates which have received the final coat and which have been examined and repaired by the Contractor's QCM or designated representative for non-conforming areas of low film thickness, blistering, dry spray, pinholes (holidays), embedded trash inclusions or other surface defects shall be examined by the CSI.
 - b. CSI shall determine conformance of film thickness requirements in accordance with SSPC-PA 2, except that readings will be taken at closer intervals to outline areas of non-conformance. Areas of film thickness lower than Specification minimum requirement will be marked and repaired by the Contractor application of additional lining material shall be in accordance with Coating Manufacturer' recommended re-coat times.
 - c. CSI shall perform, or witness the Contractor perform, holiday testing over all surfaces of the applied coating material. Holiday testing shall be performed prior to final forced cure. The coating shall be 100% holiday free. Any defects detected shall be marked with chalk and repaired by the Contractor. Repairs shall be re-tested per the Specification requirements.
 - d. CSI shall examine all surfaces of the lining material to determine that the surface is free from embedded contaminates. Any defects shall be marked with chalk and repaired by the Contractor.

1.12 CLEANUP

- A Upon completion of the Work, all staging, scaffolding, containers, and Work related material or debris shall be removed from the site to the satisfaction of the City Resident Engineer. Coating or oil spots or stains on adjacent surfaces shall be removed and the job site cleaned. All damaged surfaces resulting from the Contractor's operations shall be cleaned, repaired, or refinished, to the satisfaction of the City Resident Engineer at no cost to the City.

- B. Disposal of used solvents, thinners, coating components, and other related materials shall be the Contractor's responsibility and shall meet all City, County, State, and Federal regulations for safe disposal.

1.13 WARRANTY

- A. The Contractor shall furnish a guarantee against defects in material and workmanship pertaining to the Project. The period of the guarantee shall be one (1) year commencing on the date when the work is accepted by the City.
- B. The lining shall appear at the end of the warranty period to be wholly without peeling, flaking, disbondment, softening, blistering, corrosion, or other readily recognized failures to the integrity of the lining.
- C. The coating will not be considered defective or in need of repair for discoloration or color change, structural failure of the substrate, or cracking or crazing caused by excessive substrate movement, mechanical damage, or any cosmetic defects not detrimental to the performance of the lining.
- D. It is recognized that certain defects could occur as a result of circumstances not attributable to either the materials or their application. For example, mechanical damage or upset conditions during operation might create damage to the finished coating. The Contractor's Guarantee is not intended to cover such events.
- E. The City Resident Engineer and the Contractor will determine, and reach an agreement on, the amount of the area requiring repair. The amount of repair will be expressed in square feet. All repairs thus determined will be at Contractor's expense.
- F. Should the Contractor contest his responsibility for these repairs, a third party expert suitable to the City and the Contractor shall investigate the claim and assign responsibility. These findings shall be binding on both parties. The expenses associated with these determinations shall be accounted to the party bearing responsibility for repair.
- G. Repairs and / or replacement and their cost shall include all labor, materials and equipment necessary to perform the work. The Guarantee does not include any consequential damages such as replacement power, loss of standby labor, et cetera.

PART 2 – PRODUCTS

2.1 GENERAL

The materials and equipment furnished under this section of the specifications shall be standard products of manufacturers regularly engaged in the manufacture of such products and shall be the manufacturer's latest standard design that complies with the specification requirements.

2.2 DELIVERY AND STORAGE

A. Delivery

Concrete repair products and coating materials shall be delivered to the job site in sealed, unopened, containers with weather resistant labels that clearly show the designated name, formula or specification number, batch number, color, date of manufacture, and name of manufacturer. Products which have exceeded the manufacturer's recommended shelf life shall not be accepted and must be removed from the job site.

B. Storage

The Contractor shall be responsible for providing temporary storage facilities at the job site within an area designated by the City. The storage facility must be capable of maintaining all products within the recommended temperature and humidity limits recommended by the manufacturers. The area shall be clearly marked with appropriate signage and be in strict accordance with all Local, State, Federal, and Project safety requirements.

2.3 CONCRETE REPAIR AND RESURFACING MATERIALS

All vertical and horizontal concrete surfaces determined as needing repair after abrasive blasting shall be repaired with polymer modified portland cement-mortar / concrete. The polymer-modified portland cement mortar / concrete shall not produce a vapor barrier when applied over existing concrete. All concrete repair materials shall require certification from the manufacturer demonstrating compliance with the ISO 9000 quality standard in the development, manufacture, and sale of the product.

A. Repair Cement-Mortar for Horizontal Concrete Surfaces

1. Horizontal concrete surfaces with surface voids and defects in excess of 1/8 inch shall be repaired using a two-component, non-combustible, trowel-grade, polymer modified portland cement-mortar. The polymer-modified portland cement mortar shall be supplied in a factory proportioned unit. The polymer-modified portland cement mortar must be placeable from 1/8 inch to 1 inch in depth and extendible to fill greater depths. For filling voids and defects greater than 1 inch, the factory proportioned unit may be extended with 42 lbs. max. 3/8 inch clean, well-graded, saturated surface dry aggregate, having low absorption and high density. Aggregate shall conform to ASTM C-33 and be approved for use by the Resident Engineer.
2. Component "A" shall be a liquid polymer emulsion of an acrylic copolymer base and additives and shall have a particle size of less than 0.1 micron. Component "A" shall contain an organic, migrating corrosion inhibitor which has been independently proven to reduce corrosion in concrete via ASTM G3 (half-cell potential tests). The corrosion inhibitor shall not be calcium nitrite, and shall have a minimum of 5 years of independent field testing to document performance on actual construction projects. Component "B" shall be a blend of selected portland cements, specially graded aggregates, admixtures for controlling setting time, water reducers for

workability, and an accelerator. The polymer modified portland cement-mortar shall meet the following performance criteria and physical properties.

3. Performance Criteria

Mixing Ratio (Component “A” to “B”):	Manufacturer Plant-proportioned kit
Working Time:	10-15 minutes
Finishing Time:	20-60 minutes
<i>Finish and working times are temperature and humidity dependent</i>	

4. Physical Properties

Color:	concrete gray
Density (wet mix):	136 lbs./cu. ft.
Compressive Strength (ASTM C-109 Modified):	1 day: 3,000 psi 7 days: 5,500 psi 28 days: 7,000 psi
Splitting Tensile Strength (ASTM C-496) at 28 days:	750 psi
Flexural Strength (Modulus of Rupture) (ASTM C-293) at 28 days:	2,000 psi
Bond strength (ASTM C-882 Modified) at 28 days:	2,200 psi
Permeability at 28 days(AASHTO-T277):	500 Coulombs

5. Acceptable Manufacturers

SikaTop 122 *Plus*, as manufactured by Sika Corporation, Lyndhurst, New Jersey, or approved equal.

B. Repair Cement-Mortar for Vertical Concrete Surfaces

1. Vertical concrete surfaces with surface voids and defects in excess of 1/8 inch shall be repaired using a two component, non-combustible, non-sag, polymer modified portland cement-mortar. The polymer-modified portland cement mortar shall be supplied in a factory proportioned unit. The polymer-modified portland cement mortar must be placeable from 1/8 inch to 1 1/2 inch in depth in one lift.
2. Component “A” shall be a liquid polymer emulsion of an acrylic copolymer base and additives and shall have a particle size of less than 0.1 micron. Component “A” shall contain an organic, migrating corrosion inhibitor which has been independently proven to reduce corrosion in concrete via ASTM G3 (half-cell potential tests). The corrosion inhibitor shall not be calcium nitrite, and shall have a minimum of 5 years of independent field testing to document performance on actual construction projects. Component

“B” shall be a blend of selected portland cements, specially graded aggregates, admixtures for controlling setting time, water reducers for workability, and an accelerator. The polymer modified portland cement-mortar shall meet the following performance criteria and physical properties.

3. Performance Criteria

Mixing Ratio: (Component “A” to “B”)	Manufacturer Plant-proportioned kit
Working Time:	10-15 minutes
Finishing Time:	20-60 minutes
<i>Finish and working times are temperature and humidity dependent</i>	

4. Physical Properties

Color:	concrete gray
Density (wet mix):	132 lbs./cu. ft.
Compressive Strength: (ASTM C-109 Modified)	1 day: 3,500 psi 7 days: 6,500 psi 28 days: 8,000 psi
Splitting Tensile Strength (ASTM C-496) at 28 days:	900 psi
Flexural Strength (Modulus of Rupture) (ASTM C-293) at 28 days:	2,000 psi
Bond strength (ASTM C-882 Modified) at 28 days:	2,200 psi
Permeability at 28 days (AASHTO-T277):	500 Coulombs

5. Acceptable Manufacturers

SikaTop 123 Plus, as manufactured by Sika Corporation, Lyndhurst, New Jersey, or approved equal.

C. Concrete Leveling Mortar for Vertical and Horizontal Concrete Surfaces

1. All vertical and horizontal concrete surfaces determined as needing leveling and resurfacing after the repair of damaged concrete and prior to the application of protective coatings, shall be prepared with a two component, non-combustible, polymer modified portland cement-mortar. The polymer-modified portland cement leveling mortar shall be applied at a thickness between 1/12 inch and 1/6 inch.
2. Component “A” shall be a liquid polymer emulsion of an acrylic copolymer base and additives and shall have a particle size of less than 0.1 micron. Component “A” shall contain an organic, migrating corrosion inhibitor which has been independently proven to reduce corrosion in concrete via ASTM G3 (half-cell potential tests). The corrosion inhibitor shall not be calcium nitrite, and shall have a minimum of 5 years of independent field testing to document performance on actual construction projects. Component “B” shall be a blend of selected portland cements, specially graded aggregates, admixtures for controlling setting time, water reducers for workability, and an accelerator. The polymer modified portland cement-mortar shall meet the following performance criteria and physical properties.
3. Performance Criteria

Mixing Ratio: (Component “A” to “B”)	Plant-proportioned kit
Working Time:	45 minutes
Finishing Time:	45-60 minutes
<i>Finish and working times are temperature and humidity dependent</i>	

4. Physical Properties

Color:	concrete gray
Density (wet mix):	132 lbs./cu. ft.
Compressive Strength: (ASTM C-109 Modified)	1 day: 1,500 psi 7 days: 5,000 psi 28 days: 7,000 p
Splitting Tensile Strength (ASTM C-496) at 28 days:	900 psi
Flexural Strength (Modulus of Rupture) (ASTM C-293) at 28 days:	2,000 psi
Bond strength (ASTM C-882 Modified) at 28 days:	2,300 psi
Permeability at 28 days (AASHTO-T277):	500 Coulombs

5. Acceptable Manufacturers

SikaTop 121 Plus, as manufactured by Sika Corporation, Lyndhurst, New Jersey, or approved equal.

2.4 PROTECTIVE COATINGS

All submerged carbon steel and concrete surfaces shall be coated with a two component, 100 percent solids, epoxy coating system which complies with the ANSI/NSF 61 standard for contact with potable water. A two component, epoxy primer shall be used over concrete and carbon steel surfaces as required by the coating system manufacturer. It is not the intent of this Specification to allow or permit the use of systems from various Manufacturers but rather to provide approved products for selection by the Contractor. The selected Manufacturer shall provide to the Owner a warranty and performance guarantees. The following 100 percent solids epoxies and epoxy primer coating systems are approved for the coating of submerged carbon steel and concrete surfaces. Any substitutions, or equals, proposed by the Contractor shall be submitted to the City Resident Engineer for approval in accordance with Section 2.3 of this Specification.

A. Approved Coating Systems

1. System No. 1:

Product:	HYDRO-POX 204 (NSF Approved) Epoxy
Finish Color:	Gray
Applied Thickness Over Concrete Surfaces:	40 mils DFT
Applied Thickness Over Steel Surfaces:	16 mils DFT
Primer:	Per manufacturer's recommendation
Manufacturer:	Con-Tech of California, 2211 Navy Drive, Stockton, CA

2. Physical Properties of 100% Epoxy:

Solids Content (ASTM D 2369)	100%
VOC Content (ASTM D 3960)	None
Tensile Strength (ASTM D 638)	7,700 psi
Percent Elongation (ASTM D 638)	4.5 %
Abrasion Resistance, 1000 cycles, 1000 grams, CS-17 (CS 10 Wheel)	0.039 gms
Tear Strength (ASTM D 624)	N/A

3. Acceptable Manufacturers:

Hydro-Pox 204, as manufactured by Con-Tech, Stockton, California, or approved equal.

4. System No.2

Product:	Sikagard 62, 100% Solids Epoxy
Finish Color:	Gray,
Applied Thickness Over Concrete Surfaces:	40 mils DFT
Applied Thickness Over Steel Surfaces:	16 mils DFT
Primer:	None
Primer Color:	None
Applied Primer Thickness:	None
Manufacturer:	Sika Corporation, 201 Polito Avenue, Lyndhurst, New Jersey
Solids Content (ASTM D 2369)	100%
VOC Content (ASTM D 3960)	0
Tensile Strength (ASTM D 412)	5400 psi
Percent Elongation (ASTM D 412)	2.7 %
Abrasion Resistance, 1000 cycles, 1000 grams, CS-17 (ASTM D 4060)	0.61 gm
Tear Strength (ASTM D 624)	N/A

Acceptable Manufacturers:

Sikagard 62, as manufactured by Sika Corporation, Lyndhurst, New Jersey, or approved equal.

5. System No.3

Product:	Pota-Pox 100, Series 22, 100% Solids Modified Polyamine Epoxy
Finish Color:	Off-White
Applied Thickness Over Concrete Surfaces:	40 mils DFT
Applied Thickness Over Steel Surfaces:	16 mils DFT
Primer:	Series FC22 or 22 Pota-Pox 100
Primer Color:	1213 Light Blue
Applied Primer Thickness:	2-3 mils DFT
Manufacturer:	Tnemec Co. Inc, 6800 Corporate Drive, Kansas City

Physical Properties of Modified Polyamine Epoxy:

Solids Content (ASTM D 2369)	100%
VOC Content (ASTM D 3960)	0
Tensile Strength (ASTM D2370)	2629 psi
Percent Elongation (ASTM D2370)	2.5%
Abrasion Resistance, 1000 cycles, 1000 grams, CS-17 (ASTM D 4060)	115 mg
Tear Strength (ASTM D 5601)	2.6 lbf/in

Acceptable Manufacturers:

Pota-Pox 100, Series 22, as manufactured by Tnemec Co., Kansas City, or approved equal.

6. System No. 4 (for Moving Bridge)

Product (Finish):	Series 750 Endura-Shield
Finish Color:	Blue
Applied Thickness Over Concrete Surfaces:	N/A
Applied Thickness Over Steel Surfaces:	2 -5 mils
Primer and Intermediate Coat:	Series 135 Chembuild 135
Primer Color:	White
Applied Primer Thickness:	4 -5 mils
Manufacturer:	Tnemec Co. Inc., 6800 Corporate Drive, Kansas City

Physical Properties of Modified Polyamine Epoxy:

Solids Content (ASTM D 2369)	72%
VOC Content (ASTM D 3960)	28 %
Tensile Strength (ASTM D2370)	N/A
Percent Elongation (ASTM D2370)	N/A
Abrasion Resistance, 1000 cycles, 1000 grams, CS-17 (ASTM D 4060)	N/A
Tear Strength (ASTM D 5601)	N/A

Acceptable Manufacturers

Epoxy/Urethane, as manufactured by Tnemec Co., Kansas City, or approved equal.

7. Backer rod and Sealant
 - A. The floor expansion joints shall be sealed with Sika 1A or equal that complies with ANSI/NSF 61 standard for contact with potable water and shall be applied over a new backer rod.
 - B. The movement capability of the sealant shall be designed to expand/contract with the concrete floor.
 - C. The contractor shall remove the existing sealant between the floor expansion joint, along with the backer rod if present, before applying new sealant.
 - D. Edge of floor expansion joint shall be abrasively blast to insure that the sealant has a clean porous surface to attach to.
 - E. The contractor shall install the appropriate backer material to prevent three-sided adhesion and to control sealant depth.
 - F. Sealant should be gunned into joint at mid-point of designed expansion and contraction.

PART 3 - EXECUTION

3.1 GENERAL

The Contractor shall follow the requirements of these specifications and the manufacturer's recommendations in terms of surface preparation, application equipment and techniques, and environmental limitations. Representatives of the coating manufacturers shall be present at the start of the project to insure that the requirements of the particular coating system are met.

3.2 ENVIRONMENTAL CONDITIONS

- A. All coatings shall be applied within the environmental limits specified by the manufacturer of each product.
- B. No coating work shall be performed under the following conditions:
 1. Temperatures exceeding the manufacturer's recommended maximum and minimum temperatures for coating application.
 2. Dust or smoke laden atmosphere.
 3. Damp or humid weather conditions where relative humidity is above the manufacturer's maximum allowable.

4. When substrate temperatures or ambient temperatures are less than 5°F above the dew point. Dew point shall be measured by the use of an instrument such as a Sling Psychrometer in conjunction with U.S. Department of Commerce, Weather Bureau psychrometric tables, and surface temperature thermometers.
 5. When the ambient temperature is expected to drop below 50°F or less than 5°F above the dew point within 8 hours after coating application.
- C. The Work is contained within an underground structure which may be subject to extended periods of high humidity. The Contractor shall be expected to maintain the established production schedule despite these potentially adverse conditions by providing all labor, equipment, and materials necessary to maintain a controlled environment in the area where the Work is to be performed. The substrate and atmospheric conditions within the controlled environment, with respect to temperature and relative humidity, shall be maintained within the limits established by the manufacturer's of the specified product to ensure proper application and cure of the coating system.
- D. If any of the above conditions are prevalent which cannot be mitigated through the use of the equipment available, surface preparation and coating application shall be delayed or postponed until conditions become favorable. Daily coating activities shall be completed in time to permit sufficient drying times prior to damage by atmospheric conditions. Loss of production time shall be documented by the CSI. Requests for schedule extensions as a result of inclement weather shall be submitted in writing within 24 hours of the event and are subject to approval by the City Resident Engineer. All lost day requirements must be supported by the CSI's documentation of unworkable conditions.

3.3 CONCRETE SURFACE PREPARATION

A. General

All surfaces designated to be coated shall first be power washed to remove any existing staining, debris, dirt, loose coating material, and other surface contamination. Power washing shall be accomplished using equipment capable of delivering pressures of at least 3000 PSI. Prior to power washing, the Contractor and the CSI shall specifically mark and identify blisters in the existing coating system and cut them open. The intent of this is to remove any existing coating, during power washing, which is blistered and no longer adhered to the concrete substrate. After power washing, abrasive blast cleaning and/or high pressure water blasting shall be performed in order to provide a suitable surface for coating application. Subsequent to blast cleaning and prior to coating, all grit and dust shall be removed by vacuum cleaning or other approved method. Prior to commencement of cleaning and blasting operations, the Contractor and the CSI shall meet in order to determine the method of surface preparation and the extent of the area to be prepared.

B. High Pressure Water Blasting

High pressure water blasting shall be an acceptable and approved surface preparation method for the surface conditioning requirements of concrete substrates designated to receive protective coatings. The minimum acceptable nozzle pressure shall be 6,000 pounds per square inch and not exceeding 10,000 pounds per square inch. The use of rotary cleaning tips is recommended for the quality of cleaning and the increase in productivity. All equipment utilized shall have working pressure gages in place at all times. The final surface texture of the concrete substrate shall be equal to or better than 80 grit sandpaper. The depth and density of the surface shall be capable of providing for the mechanical bond of the specified coating system. The removal of all loosely adherent laitance, efflorescence, deteriorated concrete products, and other contaminants is required. The repair of large holes, voids, bugholes, or deteriorated surfaces shall be as outlined in Section 3.6 of this Specification.

C. Hand Tool and Power Tool Cleaning

Where necessary, the Contractor may utilize hand tool and power tool cleaning in accordance with the recommended procedures to accomplish surface preparation. Hand tool and power tool cleaning shall not be used to preclude the requirements of abrasive blasting or high pressure water blasting.

D. Control of Cleaning Debris and Residue

The Contractor shall take suitable means to prevent cleaning materials, wash down water and abrasive blast cleaning debris from entering into the plant process, controls, piping, and plant operation areas. The Contractor shall provide a slurry pump to remove water, sand, silt, and other debris from the basin sumps.

E. Vacuum Cleaning

Subsequent to high pressure cleaning, and prior to application of protective coating systems, Contractor shall remove fugitive grit, dust and other contaminants from all surfaces. Various methods or combinations may be used to ensure the prepared substrate is cleaned and acceptable to receive protective coatings. Brooms, brushes, compressed air jets, water wash downs or other pre-approved cleaning methods may be allowed. The final step, immediately prior to the application of coating materials, shall be vacuum cleaning to remove embedded or residual contaminants, dust or other debris.

F. Disposal / Hauling of Abrasives

Spent abrasive blast media and debris may be considered by the State of California to be a hazardous substance. If Contractor's analysis of spent abrasive demonstrates that this material is a hazardous substance, Contractor shall be responsible for compliance with all Federal, State, or local regulatory requirements. This shall include State of California, Department of Health Services, regulations concerning hauling and safe disposal. The Contractor shall be responsible for removal of spent abrasive media and debris from the jobsite on a weekly basis at a minimum, or as directed by the City Engineer. Disposal of debris shall be Contractor's responsibility.

G. Control and Removal of Overspray

Overspray or, dusty, dry spray is an impediment to bonding of coating materials. Contractor shall mask and otherwise protect areas previously painted, areas previously cleaned, and all items not to be painted, from overspray. Overspray shall be removed by Contractor.

H. Installation of Backer Rod and Sealant

The existing backer rod and sealant shall be removed from the floor joints inside the mixing and sedimentation basins. SIKA 1A or an approved equal shall be applied to seal the floor joints after the appropriate size and type of backer rod has been installed.

3.4 CARBON STEEL SURFACE PREPARATION

A. General

The work to be performed under this section shall apply only to the designated steel substrates to receive coatings. The application requirements shall include surface preparation, materials to be utilized and the methods approved to provide a high quality finished product.

B. Surface preparation shall be accomplished by abrasive blast cleaning in accordance with SSPC SP10 "near white blast cleaning". The anchor pattern and profile requirement shall be as specified herein or by the technical data sheets of the protective coating material manufacturer.

C. The Contractor shall examine the steel substrates designated to receive coatings prior to the abrasive blast operations to determine all welds are smooth and free of pinholes, undercutting fins, weld spatter, or sharp edges. The requirements of NACE RP-0178 fabrication details, surface finish and design consideration for immersion service application guidelines shall be utilized. Any or all defects or variations noted shall be brought to the attention of the City Engineer or the City's CSI for corrective action.

D. Prior to the commencement of abrasive blast operations on steel substrates, all grease, oil and other detrimental contaminants shall be removed in accordance with SSPC-SP1 "solvent cleaning".

- E. All carbon steel surfaces that are fully immersed during service shall be abrasive blasted according to the requirements of SSPC SP 10 “near white-metal” blast, and shall have a profile of 2.0 mils minimum, 3.5 mils maximum, with a uniform anchor pattern. Contractor shall verify specification profile requirements with replica tape and suitable micrometer in accordance with NACE Standard RP-0287. The degree of surface cleanliness obtained for the steel immediately prior to coating operations shall be verified with the use of either SSPC Pictorial Surface Preparation Standards for Painting Steel Surfaces, SSPC-Vis 1, or NACE TM-01-70 Visual Standards.
- F. Blast cleaning shall not be conducted when the substrate is less than 5 °F above the dew point. It is intended that the environmental control equipment will be capable of “holding” the blast until the first coat is applied. However, any surfaces determined to have “turned” or that exhibit “rust bloom” shall be re-blasted to specification requirements.
- G. Sufficient explosion proof floodlight or spotlights shall be used to provide good visibility during abrasive blasting, protective coating, application, and inspection. Each blast hose shall be equipped with a “PAR” or equally bright light mounted directly on the hose to assure that the blaster has sufficient visibility to see what he is doing. All equipment, including drop lights, shall be explosion proof and spark proof.
- H. Blast nozzle operators shall wear a U.S. Bureau of Mines-Approved positive pressure helmet connected to an outside source of purified compressed air. All other persons exposed to the abrasive dust shall wear OSHA approved respiratory protection.
- I. The compressed air used for abrasive blasting shall be free of water and oil. Adequate separators or traps shall be provided and properly maintained, and shall be emptied regularly of water and oil. Contractor shall test the compressed air twice daily for cleanliness using the white blotter test in accordance with ASTM D 4285, “Indicating Oil or Water in Compressed Air.”
- J. Surface scabs, slivers or other substrate imperfections exposed by abrasive blasting shall be marked and reported immediately to the City Engineer in order that the City’s CSI may take appropriate action. Areas, once repaired, shall require re-blast to restore the required profile.
- K. No acid wash or other cleaning solution or solvents, including inhibitive washes intended to prevent rusting, shall be used on metal surfaces after being blast cleaned. Appropriate caution and judgment must be exercised to prevent surface preparation debris from entering drains, piping instrument sensors or other plant operational areas.
- L. All abrasive blast cleaned surfaces shall be brushed, blown down, and vacuum cleaner to remove all dust and debris prior to any protective coating application. All floors shall be broom or brushed, then vacuumed, to remove all spent abrasive or other contaminates.

- M. Upon completion of all abrasive blast operations and prior to application of the first coat of the specified material, a Hold Point shall be established. Work shall not proceed until the surface cleanliness and profile has been determined by the CSI to be in conformance with this Specification.

3.5 REPAIR OF CONCRETE SURFACE DEFECTS

A. General

Since it is not possible to predict the total amount of repair that will be required on specific concrete substrates until the specified surface preparation has been completed, the following guidelines shall be implemented. It is not the intention of these specifications nor of the City to require the full surface cover of the specified concrete substrates with the bug hole fillers or concrete repair materials. Surface and filler materials are available for use only where conditions exist that do not provide for a smooth coatable surface, or where protective coating materials will not fill in voids.

1. Following the completion of surface preparation and the removal of loose coating material, residual dust, debris or process contamination, a very close visual examination will be performed by the Contractor and the City's CSI.
2. All sharp protrusions, fins, sharp corners or other defects that will interfere with the ability of the protective coating system to fully cover and adhere shall be removed, radiused or smoothed utilizing any or all methods available.
3. Bug holes shall be closely inspected to permit these defects to be identified and categorized based on the average nominal depth of the defect. This shall include, but, not be limited to any and all cracks that may be visible after the specified surface preparation has been performed. Substrate repairs, bug hole filling, cracks, crevices, as well as any other surface defects that become exposed shall be repaired to provide a coat able surface in accordance with the following guidelines.

B. Repair of Horizontal Concrete Surfaces

All substrate repairs identified by the Contractor and the City's CSI such as bug holes, cracks, crevices, spalls and cavities as well as any other surface defects that become exposed on horizontal concrete surfaces shall be repaired to provide a coatable surface using the polymer-modified portland cement-mortar / concrete specified in Section 2.4, Paragraph A, of this Specification. The polymer-modified portland cement-mortar shall be used for repairs between 1/8 -inch and 1-inch deep. Areas deeper than 1-inch deep shall be repaired using the prepared polymer-modified portland cement concrete as specified herein.

1. Mixing the polymer-modified portland cement mortar. Mix manually or mechanically. Manually mix in a wheel barrel and mortar box. Mechanically mix in appropriate sized mortar mixer or with a jiffy paddle and low speed (400-600 rpm) drill. Pour approximately 4/5 gallons of Component “A” into the mixing container. Add Component “B” while continuing to mix. Mix to a uniform consistency for a maximum of three minutes. Add remaining Component “A” to mix if a more loose consistency is desired. If manual mixing takes more than three minutes, mix smaller quantities. Should smaller quantities be needed, be sure the components are dosed in the correct ratio and that the Component “B” is uniformly pre-mixed before batching.
2. Mixing of the polymer-modified portland cement concrete: Pour all, 1 gallon, of Component “A” into the mixing container. Slowly add Component “B” while continuing to mix. Add correct amount of the pre-approved coarse aggregate, 42 lbs. / unit maximum, and continue mixing to a uniform consistency. Mixing time should be 3minutes maximum. Split batch mixing is approved should such become necessary due to mixing problems.
3. Placement Procedure: At the time of application, the substrate should be saturated surface dry with no standing water. At the Contractor’s option, polymer-modified portland cement-mortar material may be spray applied using shotcrete type equipment to cover large areas that require surface repair. After spraying or manual application, the mortar and / or concrete must be hand-scrubbed into substrate filling all pores and voids. While the scrub coat is still plastic, force material against edge of repair, working toward center. After filling, consolidate, then screed. Allow mortar or concrete to set to desired stiffness. Then finish with trowel, manual or power, for smooth surface. Broom or burlap drag for rough surface. Areas where the depth of the repair area to sound concrete that is 1 inch or less shall be repaired with polymer-modified portland cement mortar. In areas where the depth of the repair is greater than 1 inch, the repair shall be made with polymer-modified portland cement concrete.
4. As per ACI recommendations for portland cement, concrete curing is required. Only when ambient conditions of moisture, humidity, temperature and wind are sufficiently favorable is curing optional. Moist cure with wet burlap and polyethylene, a fine mist of water or water based compatible curing compound. Moist curing should commence immediately after finishing. If necessary, protect newly applied material from rain. To prevent from freezing, cover with insulating material. Setting time is dependent on temperature and humidity.
5. Adhere to all procedures, limitations and cautions for the polymer-modified portland cement mortar in the manufacturer’s current printed technical data sheet and literature.

C. Repair of Vertical Concrete Surfaces

All substrate repairs identified by the Contractor and the City CSI such as bug holes, cracks, crevices, spalls and cavities as well as any other surface defects that become exposed on vertical concrete surfaces shall be repaired to provide a coatable surface. The polymer-modified portland cement-mortar specified in Section 2.4, Paragraph A, of this Specification may be used for repairs between 1/8 -inch and 1-inch deep and shall be applied in accordance with Section 3.5, Paragraph B. Surface repairs greater than 1-inch deep shall be repaired with a non-sag, polymer-modified portland cement-mortar as specified in Section 2.3, Paragraph B, of this Specification and applied as specified below.

1. Mixing the polymer-modified portland cement mortar. Mix manually or mechanically. Manually mix in a wheel barrel and mortar box. Mechanically mix in appropriate sized mortar mixer or with a jiffy paddle and low speed (400-600 rpm) drill. Pour Component “A” into the mixing container. Add Component “B” while continuing to mix. Mix to a uniform consistency for a maximum of three minutes. If manual mixing takes more than three minutes, mix smaller quantities. Should smaller quantities be needed, be sure the components are dosed in the correct ratio and that the Component “B” is uniformly pre-mixed before batching.
2. Placement Procedure: At the time of application, the substrate should be saturated surface dry with no standing water. Hand-scrub material into substrate filling all pores and voids. While the scrub coat is still plastic, force material against edge of repair, working toward center. After filling, consolidate, then screed. The polymer-modified portland cement-mortar may be installed in multiple lifts. The thickness of each lift shall not be less than 1/8-inch or more than 1 1/2-inches maximum. Where multiple lifts are required, score top surface of each lift to produce a roughened surface for the next lift. Allow preceding lift to reach final set, 30 minutes minimum, before applying fresh material. Saturate surface of the lift with clean water. Scrub fresh mortar into preceding lift. Allow mortar to set to desired stiffness, then finish with wood or sponge float for smooth surface.
3. As per ACI recommendations for portland cement, concrete curing is required. Only when ambient conditions of moisture, humidity, temperature and wind are sufficiently favorable is curing optional. Moist cure with wet burlap and polyethylene, a fine mist of water or water based compatible curing compound. Moist curing should commence immediately after finishing. If necessary, protect newly applied material from rain. To prevent from freezing, cover with insulating material. Setting time is dependent on temperature and humidity.
4. Adhere to all procedures, limitations and cautions for the polymer-modified portland cement mortar in the manufacturers current printed technical data sheet and literature.

D. Resurfacing and Leveling of Horizontal and Vertical Concrete Surfaces

All vertical and horizontal concrete surfaces determined by the Contractor and the City CSI as needing leveling, pore sealing, and resurfacing, after the repair of damaged concrete and prior to the application of protective coatings, shall be prepared with a two component, non-combustible, polymer modified portland cement-mortar as specified in Section 2.4, Paragraph C, of this specification. The polymer-modified portland cement leveling mortar shall be applied at a thickness between 1/12 inch and 1/6 inch.

1. Mixing the polymer-modified portland cement mortar: Mix manually or mechanically. Manually mix in a wheel barrel or mortar box. Mechanically mix in appropriate sized mortar mixture or with a jiffy paddle and low speed (400-600 rpm) drill. Pour approximately 4/5 gallons of Component "A" into the mixing container. Add Component "B" while continuing to mix. Mix to a uniform consistency for a maximum of three minutes. Add remaining Component "A" to mix if a more loose consistency is desired. If manual mixing takes more than three minutes, mix smaller quantities. Should smaller quantities be needed, be sure the components are dosed in the correct ratio and that the Component "B" is uniformly pre-mixed before batching.
2. Placement Procedure: At the time of application, the substrate should be saturated surface dry with no standing water. The mortar may be hand applied or spray applied using a low pressure hopper gun. Work the material well by hand into the prepared concrete substrate, filling all pores and voids. As soon as the mortar starts to set, rub the surface with a fine sponge or plastic trowel to obtain a uniform surface texture. Do not overwork the material during finishing and avoid the use of additional water.
3. As per ACI recommendations for portland cement concrete, curing is required. Protect the freshly applied mortar against direct sunlight, wind, frost and rain. Curing compounds adversely affect the adhesion or protective coatings. Do not use water based curing compounds.
4. Adhere to all procedures, limitations and cautions for the polymer-modified portland cement mortar in the manufacturer's current printed technical data sheet and literature.

E. Cleaning

The uncured polymer-modified portland cement mortar can be cleaned from tools with water. The cured polymer-modified portland cement mortar can only be removed mechanically. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

3.6 PROTECTIVE COATING APPLICATION

A. General

1. Protective coating materials shall not be applied when substrate temperatures are below 50°F, or when substrate temperatures are less than 5 °F above the dew point, or when the expected climate controlled conditions are such that the temperature and humidity will exceed the coating manufacturer's requirements.
2. All protective coatings shall be applied using the best state-of-the-art techniques as outlined in this Specification, SSPC, NACE International, ASTM Standards, and the manufacturer's printed instructions to result in a finish of uniformity and integrity, free of runs, sags, curtains, pinholes, embedded grit, inclusions, orange peel, fish eyes, overspray and delaminations.
3. Coating material applied to prepared surfaces prior to approval of the surface by the City's CSI, shall be removed and reapplied to the satisfaction of the City's CSI at the expense of the Contractor. Hold points are established and shall be enforced for this project.
4. The Contractor shall examine each coat for surface cleanliness prior to the application of succeeding coats.
5. Each coat shall be allowed to dry or cure for the amount of time recommended by the coating manufacturer. Successive coats shall be applied within the recoat time as recommended by the coating manufacturer. If the recoat time is exceeded, the next coat shall not be applied until the previous coat has been properly prepared in accordance with the manufacturer's recommendations.
6. The pot life of the coating as recommended by the coating manufacturer shall not be exceeded.
7. Coating application shall be carried out according to the coating manufacturer's recommendations. In case of conflict between this Specification and the manufacturer's recommendation, the conflict shall be resolved by a meeting of the City's Engineer, the CSI, the Contractor's Quality Control Manager and the manufacturer's representative prior to any additional application.

B. Two-Component Epoxy Primer Mixing and Application

1. Two-component epoxy primer shall be applied to prepared and cleaned steel and concrete surfaces according to the coating manufacturer's recommendations. The primer shall be applied to achieve a minimum dry film thickness of 3 mils and a maximum dry film thickness of 5 mils.

2. All two-component epoxy primer materials shall be furnished in the original manufacturer's unopened containers, clearly identifiable, and shall be kept covered, clean, and protected. Materials exceeding the manufacturer's recommended shelf life before use shall not be used and shall be removed from the job site and returned to the manufacturer.
3. All components of the primer system shall be agitated in their original containers, prior to mixing, as recommended by the manufacturer. Mixing shall be accomplished with an explosion-proof, air-driven, mixer for such time necessary to ensure that all pigment, components, and thinners are thoroughly mixed and blended. Materials shall be thinned only with the manufacturer's recommended thinners, and only in strict accordance with data sheet limitations. No thinners shall be added to the coating materials which have not been measured with a graduated utensil.
4. All mixing shall be done in clean containers, free from traces of contaminants and other types of coatings. Mixing containers shall be cleaned regularly to remove partially reacted solids. All mixing containers shall be kept covered to prevent contamination by dust, dirt, or atmospheric moisture. Any catalyzed material remaining at the end of the day shall be discarded according to applicable City, County, State, and Federal regulations.
5. Primer shall be applied to prepared substrates using airless spray equipment or conventional spray equipment as recommended by the primer manufacturer. To minimize pinholing in the coating, the primer shall be applied as substrate surface temperatures are decreasing. Primer shall be applied at the specified wet film thickness to ensure the required dry film thickness will be achieved.
6. The Contractor shall follow the coating manufacturer's recommendation for maximum/minimum recoat times between successive and top coat applications.

C. 100% Solids Epoxy Application

1. Prior to the coating application, the Contractor shall thoroughly agitate and heat individual components of the 100% solids epoxy coating system as required by the coating manufacturer. Thinning of the coating shall not be allowed.
2. The 100% solids epoxy coating shall be applied over primed steel and concrete surfaces using specially designed plural component proportioning spray equipment as recommended by the coating manufacturer. The equipment must be capable of operating at a fluid spray pressure between 2,500 and 3,000 pounds per square inch. All spray equipment shall be approved by the coatings manufacturer prior to its use. The Contractor shall have the ability to maintain process temperatures during the coating application.

3. The 100% solids epoxy coating shall be applied over primed steel and concrete surfaces. A minimum dry film thickness of 60 shall be achieved over concrete surfaces. A minimum dry film thickness between 16 mils shall be achieved over steel surfaces.
4. All surfaces receiving the protective coating shall be visually dry and at least 5°F above the dew point prior to the application of the coating. Relative humidity must also be below 85%.
5. The coating shall be spray-applied to primed steel and concrete surfaces to meet the specified minimum dry film thickness as specified and in a manner recommended by the coating manufacturer. Where the final dry film thicknesses do not meet the requirements of this Specification, additional material shall be applied by the Contractor at no additional cost to the City.

D. Application of the coating for the moving bridge

1. Prepare previously painted surfaces in accordance with manufacturer's instructions.
2. Remove oil, grease, dirt, loose rust, loose paint, loose mill scale, and any other contaminants by water at pressures of 3000 to 4000 psi at a flow rate of 4 to 15 gallons per minute.
3. Pay close attention to any chalking issues, and dirt or debris contamination or staining issues that may require the need for further more aggressive means of scarification, including but not limited to the use of brooms, brushes, detergents, and/or abrasive media. Rinse with clean tap water.
4. When cleaning is complete, all areas should exhibit a similar clean and dull appearance. Areas that appear glossy shall require some sanding to dull surfaces.
5. All rusting, scaling or damaged areas shall be cleaned in accordance with SSPC-SP6 Commercial Blast Cleaning or SSPC-SP11 Power Tool Cleaning to Bare Metal. Remaining paint shall be firmly bonded to the substrate with cleaned edges feathered.

NOTE: If using a Tnemec product, please reference Tnemec TB (Technical Bulletin) 98-16 and ASTM D4214 Method A & Method B, with the end result being a minimum rating of 9 (negligible to no transfer) for any areas that one may question on staining or chalking. One can extrapolate the data specifically on this project and apply it to the surface stain or rust stain (not active rusting over metal) and using both the wet (Method B) and dry method (Method A), evaluate the transfer if any per the scale photos contained in Method A or the TNO Chart; and if it rates a 9, painting may commence (assuming that a test patch has been evaluated in accordance with SSPC TU-3 and/or Tnemec TB 98-10R2 and the existing system qualified as an

overcoat candidate). Tnemec's literature supports a surface rating of 9 as per ASTM D4214 utilizing BOTH the wet & dry methods. If exterior paints have been determined to contain lead under title 22, all cleaning procedures shall be conducted to ensure removed paint particles or water are contained and not allowed to fall onto the site or atmosphere.

*** END OF SECTION ***

APPENDIX B
LOCATION MAP



OTAY WATER TREATMENT PLANT CONCRETE WORK Vicinity Map



PACIFIC OCEAN

SOLANA BEACH

DEL MAR

LA JOLLA

CORONADO

NATIONAL CITY

CHULA VISTA

POWAY

SANTEE

LEMON GROVE



LOCATION

APPENDIX C

ADDENDUM MITIGATED NEGATIVE DECLARATION



Land Development
Review Division
(619) 446-5460

Addendum to a Mitigated Negative Declaration

Project No. 32218
Addendum to MND No. 40-0932
SCH No. 2001061035

SUBJECT: Otay Water Treatment Plant Upgrades (Phase 3): COUNCIL APPROVAL of CAPITAL IMPROVEMENTS PROJECT (CIP) No. 732850 for: (a) the construction of a flocculation/sedimentation basin to be connected to an existing sludge line by a below-grade pipeline 463 feet long and 12 inches in diameter; the rehabilitation of 16 filters to be connected to an existing waste wash water line by a below-grade pipeline 176 feet long and 24 inches in diameter; (b) an ultraviolet (UV) disinfection facility, filter effluent meter vault, and associated pipeline and electrical support facilities; a chlorine contact basin; and (c) four filters; a UV reactor; and the rehabilitation of two existing flocculation/sedimentation basins. The existing Otay Water Treatment Plant (WTP) is located on property owned by the City of San Diego at 1500 Wueste Road, southwest of the Lower Otay Reservoir, within the City of San Diego, the City of Chula Vista, and the County of San Diego. The proposed improvements would be located west and north of existing facilities within the treatment plant. The area within the existing facility (24.4 acres), bounded by an existing fence, is excluded from the Otay Lakes Cornerstone Agreement and the Multi-Habitat Planning Area (MHPA). An additional five acres outside the fence line is also excluded from the Otay Lakes Cornerstone Agreement and the MHPA for future expansion. Applicant: City of San Diego Water Department, CIP.

I. PROJECT DESCRIPTION:

Phase 3 of the Otay WTP Upgrades Project would include the construction of a flocculation/sedimentation basin immediately to the west of two existing identical basins. Mitigated Negative Declaration (MND) No. 40-0932 originally identified rehabilitation of the two existing basins, but it was later determined a third one should be constructed. The new basin would be 225 feet long by 56 feet wide by 17.5 feet high, and would be connected to the existing sludge line (which discharges away from the outlet tower) by a 463 feet long pipeline 12 inches in diameter within the paved roadway. Much of the basin height would be located below grade, with approximately 4.5 feet extending above grade. Sixteen existing filters would also be rehabilitated with a new pumped backwash system, filter-to-waste system, new underdrains, and new filter media, and would be connected to an existing waste wash water line by a pipeline 176 feet long and 24 inches in diameter.

The second stage of construction would involve the construction of a chlorine contact basin, UV disinfection facility, filter effluent meter vault, and associated

pipings and electrical support facilities. The original MND identified a membrane facility (100 feet wide by 215 feet long by 30-60 feet high) as the proposed method of disinfection. After extended analysis of effectiveness and cost, UV was determined to be the preferred disinfection method over membrane filtration. The UV disinfection facility would be located in approximately the same location as identified in the original MND for the membrane facility and would be approximately 170 feet long by 50 feet wide by 20 feet high. The new chlorine contact basin would be constructed just south of the UV facility. This basin would be approximately 135 feet long by 65 feet wide by 20 feet high. The combined area occupied by the UV disinfection facility and chlorine contact basin would be less than the area originally proposed for the membrane facility.

The third stage of construction would involve the construction of four new filters, the addition of a UV reactor, and the rehabilitation of two existing flocculation/sedimentation basins. The four new filters (6,700 square feet in size) would be similar in design and size to the existing filters on site and would be installed next to them. The additional UV reactor would be located within the proposed UV disinfection facility and would be constructed below grade.

II. ENVIRONMENTAL SETTING:

See original MND and attached Initial Study.

III. PROJECT BACKGROUND:

The Otay Service Area (OSA), one of three major water service areas within the City of San Diego, services the southern portion of the City, which includes Otay Mesa, South San Diego, San Ysidro, Paradise Hills, Nestor, and a portion of Paradise Mesa. The OSA is primarily supplied by the Otay WTP, which is located adjacent to the Lower Otay Reservoir just six miles north of the United States-Mexico border. Water is supplied to the Otay WTP from the Otay, Barrett, and Morena reservoirs via the 40-inch Otay Raw Water Pipeline and the San Diego County Water Authority (SDCWA) 2nd Aqueduct Pipeline.

The Otay WTP was upgraded in 1971 to a 15-million-gallons-per-day (MGD) facility. In 1981, new gravity filters were constructed to replace the aging pressure filters, along with a new Operations Building. In 1989, the facility was upgraded to its current configuration, which includes a raw water pump station, eight more gravity filters, two flocculation/sedimentation basins, and improvements to the chemical systems. The current rated capacity of the Otay WTP is 34 MGD with an ultimate planned capacity of 60 MGD. The site has areas reserved for future unit processes, and the critical yard piping between existing process facilities has already been installed to accommodate 60 MGD. The plant currently provides approximately 20 to 34 MGD of treated water to the OSA.

The Otay WTP Clearwells identified in Phases 1 and 2 of the original MND are currently under construction. This addendum addresses only Phase 3 identified in the MND as consisting of a membrane filtration facility and surrounding access road, a chlorine contactor, improvements to the two existing flocculation/sedimentation basins, operational improvements to filters, and replacement of an existing flash mixer. For funding reasons, Phase 3 has now been divided into three stages. The project description above addresses those sub-phases and the modifications made to the original MND.

These upgrades would enable the Otay WTP to comply with the requirement to achieve the following water quality goals, as set by the United States Environmental Protection Agency (EPA) and California Department of Health Services:

- Lower disinfection by-product levels to achieve compliance with proposed EPA requirements.
- Maintain or improve inactivation and/or removal of Giardia, Cryptosporidium, viruses, bacteria, and other microbiological pathogens.
- Meet increased disinfection requirements.
- Reduce taste and odor problems.

IV. DETERMINATION:

The City of San Diego previously prepared an MND for the project.

Based upon a review of the current project, it has been determined that:

- a. There are no new significant environmental impacts not considered in the previous MND;
- b. No substantial changes have occurred with respect to the circumstances under which the project is undertaken; and
- c. There is no new information of substantial importance to the project.

Therefore, in accordance with Section 15164 of the State CEQA Guidelines, this addendum has been prepared. No public review of this addendum is required.

V. MITIGATION MONITORING AND REPORTING PROGRAM INCORPORATED INTO THE PROJECT:

None required.

VI. SIGNIFICANT UNMITIGATED IMPACTS:

There are no new significant impacts identified for the current project, and the final MND for the original project identified no significant unmitigated impacts.

Chris Zirkle
Assistant Deputy Director
Development Services Department

May 18, 2004
Date of Final Report

Analyst: McGinnis

San Diego Natural History Museum (166)
San Diego Audubon Society (167)
California Native Plant Society (170)
Southwest Center for Biodiversity (176)
Endangered Habitats League (182)
Dr. Florence Shipek (208)
Dr. Lynne Christensen (208A)
South Coastal Information Center (210)
Save Our Heritage Organisation (214)
Ron Christman (215)
Louie Guassac (215A)
San Diego County Archaeological Society, Inc. (218)
Native American Heritage Commission (222)
Acquisitions Library, SDSU (224)
Kumeyaay Cultural Repatriation Committee (225)
Native American Distribution (225A-R)*
Otay Mesa/Nestor Community Planning Group (228)
Tijuana River National Estuarine Reserve (229)
Otay Mesa Development Council (230)
Otay Mesa Chamber of Commerce (231A)
Michael A. Vogt (232)
Otay Mesa Planning Committee (235)
Otay Mesa/Nestor Community Service Center (236)
United States International University (438)
Walter Library, USIU (441)
Arco Olympic Training Center

*Notice only

ATTACHMENT B
PROPOSAL SUBMITTAL REQUIREMENTS AND SELECTION CRITERIA

ATTACHMENT B

PROPOSAL SUBMITTAL REQUIREMENTS AND SELECTION CRITERIA

PUBLIC WORKS DEPARTMENT

Proposals submitted in response to this RFP shall be in the following order and shall include:

1. Addenda to this RFP (PASS/FAIL)

Design-Builder shall confirm in its Technical Proposal the receipt of all addenda issued to this RFP. Failure to acknowledge all addenda issued, will result in the Proposal being considered non-responsive and ineligible for further consideration.

Design-Builders are not required to include copies of the actual addenda in its Proposal.

2. Exceptions to this RFP (PASS/FAIL)

If the Design-Builder takes exception(s) to any portion of the RFP and its attachments, the specific portion of the RFP or attachment to which exception is taken shall be identified and explained to the City in writing a minimum of 10 days prior to the date established for submittal of the Technical Proposal. Exceptions taken after the stipulated period to this RFP may be cause for rejection of the Proposal and discontinue the Design-Builders participation to this selection process. The City reserves the right to waive exception(s) as it deems in the best interests of the City.

3. Executive Summary (5 Points Max)

Include a one- to two-page overview of the entire Proposal describing the highlights of the Proposal. Failure to provide the executive summary will result in the RFP being considered non-responsive and ineligible for further consideration.

4. Project Team (15 Points Max)

Describe the proposed management plan for this project. Describe the strength of key proposed construction and technical personnel, Subcontractors, and Subconsultants, including, but not limited to the following disciplines:

- a. Civil
- b. Structural
- c. Mechanical
- d. Electrical
- e. Environmental
- f. Corrosion, See Scope of Work for Engineering Requirements.

5. **Technical Approach and Design Concept (30 Points Max)**

Describe in detail the proposed design concept for this project. Include detailed descriptions, conceptual design drawings, schematics, a list of major equipment, and any other information deemed necessary to allow the City to make an informed evaluation of the Design-Builder's technical approach. The completeness and technical merit of the design concept will be evaluated. The following elements shall be included in this Technical Proposal:

- a. **Water Treatment Plant System:** Describe the proposed general approach to developing the restoration of the Flocculation and Sedimentation Basin structure of the water treatment plant system, to include, at a minimum:
 - Water Treatment plant flocculation and sedimentation basin, holding and storage protective and anti-corrosion coating application. .
 - Appurtenance equipment, valves, piping, metal plates and strip
 - Appurtenance structures cross bridges and columns.
 - Preparation of surfaces to be coated for restoration
 - Quality Assurance/Quality Control Plan (QA/QC Plan) - The Design-Builder shall submit a QA/QC Plan specifically developed for this Project. The Design-Builder's QA/QC Plan shall comply with the City's Quality Assurance/Quality Control Plan Guidelines (see attached Contract for Guidelines). The QA/QC Plan shall describe the tools, process, and resources the Design-Builder shall use to ensure that it provides facilities that meet the requirements of the Contract.
 - Best Management Practices
 - Environmental testing, Monitoring and Mitigation including Handling of Hazardous/ Contaminated materials.
 - Corrosion protection
- b. **Proposed Design Schedule:** Outline the proposed design schedule, including sequencing of each major design component (60%, 100% and final design) and proposed durations. Design Builder shall provide in terms of calendar days from NTP.

6. **Construction Plan (20 Points Max)**

- a. Describe the proposed construction plan for this project, including the following, at a minimum:
 - Construction approach and methods
 - Plan for operation of facility during construction
 - Plan for phasing of construction activities
 - General plan for functional testing and start-up.
 - Proposed safety program
 - Proposed emergency response plan
 - Proposed construction schedule
 - Traffic Control Management
 - Community Impact

7. Equal Employment and Contracting Opportunity (25 Points Max)

Failure to submit the required EOCP information will result in Proposal being determined as non-responsive.

Subcontractor Documentation

The Design-Builder shall, at a minimum, provide with its Technical Proposal a listing of at least 3 of the largest Subcontractors (constructors only) for the Project and all other Subcontractors (design professionals, etc.) that are known at the time it submits its Proposal, using Form AA15 and AA30. Note: Subcontractors include design professionals, as well.

Any changes to the listing of the proposed Subcontractors that have occurred in the information, required data or documentation submitted in the SOQ shall be submitted in accordance this section, and shall be included in an attachment, which shall be entitled "Subcontractor Documentation" using forms AA15 and AA30.

Work which requires Subcontractors that are not listed by Design-Builder at time of Award shall be let by Design-Builder in accordance with a competitive bidding process performed solely at Design-Builder's expense. Design-Builder shall provide public notice of the availability of the Work to be subcontracted, obtain competitive bids, and provide a fixed date and time on which the subcontracted Work will be awarded. Subcontractors bidding on subcontracts pursuant to this provision shall be afforded the protection of all applicable laws, including Public Contract Code sections 4100 through 4114, inclusive.

The Design-Builder may select Subcontractors and Suppliers in one of 3 competitive ways i.e., lowest responsible bidder, best value for price and qualifications, or highest qualifications. Prior to construction NTP, the Design-Builder shall do the following:

- a. Submit the selection method used to the City in accordance with 2-5.3, "Submittals."
- b. Pre-qualify Subcontractors and Suppliers, in a manner at least as stringent as the City's pre-qualification standards.
- c. Review the Subcontractors and Suppliers ultimately chosen to verify that they have not been debarred and are in good standing as a licensed contractor in California.
- d. Open all Subcontract bids and provide to the City one copy without reservation or redaction. All records relevant to the award and performance of Subcontractors and Suppliers shall be public and provided to the City upon request and without redaction.

The City may administer bidding itself for Subcontractors and Suppliers, or to direct the bidding procedures to be used by the Design-Builder.

The Design-Builder may use its corporate-generated subcontractor agreement to retain Subcontractors or Suppliers, provided the subcontractor agreement contains the terms required to be included in Subcontracts by this Contract.

The points will be awarded in only one of the possible outcomes as follows:

	OUTCOME	Maximum Possible Point
1	5% - 9% participation SLBE, ELBE, DVBE, or DBE	5
2	10%-14% participation SLBE, ELBE, DVBE or DBE	10
3	15%-19% participation SLBE, ELBE, DVBE or DBE	15
4	20%-24% participation SLBE, ELBE, DVBE or DBE	20
5	25% participation SLBE, ELBE, DVBE or DBE	25

In no case the points shall exceed 25.

8. Reference Checks (5 Points Max)

Total Points: 100

Proposals that do not contain the aforementioned components will not be considered.

ATTACHMENT C
CONTRACT FRONT END VOLUME 1

City of San Diego

CONTRACTOR'S NAME: _____
ADDRESS: _____
TELEPHONE NO.: _____ FAX NO.: _____
CITY CONTACT: Mike Bajoua/Francisco Bordon, 600 B Street, Suite 800, MS 908A, San Diego, CA 92101-4520
Mbajoua@san Diego.gov/Fbordon@san Diego.gov, Ph: 619-533-4628/533 6625, Fax: 619-533-6627

NB/CA/RIR

CONTRACT DOCUMENTS



FOR

OTAY WATER TREATMENT PLANT CONCRETE WORK DESIGN-BUILD CONTRACT

VOLUME 1 OF 2

RFQ NO.: As-Needed Design-Build Services for the Engineering & Capital Projects Department – 5151DB
RFP NO.: _____ **5581DBA**
TASK ORDER NO.: _____ **11DB01**
BID NO.: _____ **K-12-5581-DBA-3**
SAP NO. (WBS/IO/CC): _____ **S-11059**
CLIENT DEPARTMENT: _____ **2013**
PROJECT TYPE: _____ **BI**

THIS CONTRACT IS SUBJECT TO THE FOLLOWING:

- THE CITY'S SUBCONTRACTING PARTICIPATION REQUIREMENTS FOR SLBE PROGRAM.

((((((((((((((((((((ATTENTION))))))))))))))))))

The 2010 edition of the City of San Diego Standard Specifications for Public Works Construction (“The WHITEBOOK”) now contains the following distinct Contract Documents:

- 1) **Equal Opportunity Contracting Program Requirements** - This Contract Document sets forth the standard requirements for the City’s equal opportunity contracting program. When additional requirements by the funding source e.g., federal or state agencies are physically included in the contract documents or by reference and there is a discrepancy, the funding source requirements shall govern unless specified otherwise in the Special Provisions.

- 2) **City Supplement** – The City Supplement shall be used in conjunction with the Standard Specifications for Public Works Construction (“The GREENBOOK”), 2009 Edition. The specifications contained in City Supplement take precedence over the specifications contained in The GREENBOOK, 2009 Edition.

Certain parts of the City Supplement have been highlighted in yellow for the convenience of the users only and shall not affect the interpretation of the Contract.

To obtain The GREENBOOK contact the publisher at: <http://www.bnibooks.com>

The WHITEBOOK is available only in electronic format under Engineering Documents and References at: <http://www.sandiego.gov/engineering-cip/>

TABLE OF CONTENTS

DESCRIPTION	PAGE NUMBER
1. REQUIRED DOCUMENTS SCHEDULE.....	67-69
2. SLBE-ELBE PROGRAM SPECIAL NOTICE.....	70-75
3. INVITATION TO BID(S).....	76
4. INSTRUCTION TO BIDDER(S).....	77-85
5. CONTRACT FORMS	
• Design-Build Agreement/Contract.....	86-87
• Performance Bond and Labor and Materialmen’s Bond.....	88-89
6. CONTRACTOR CERTIFICATION	
• Drug-Free Workplace.....	90
• American with Disabilities Act (ADA) Compliance.....	91
• Contractor Standards - Pledge of Compliance.....	92
• Affidavit of Disposal.....	93
7. SUPPLEMENTARY SPECIAL PROVISIONS.....	94-117
8. APPENDICES:	
• APPENDIX A Fire Hydrant Meter Program.....	118-132
• APPENDIX B Sample City Invoice.....	133-134
• APPENDIX C Hydrostatic Discharge Form.....	135-136
• APPENDIX D Hazardous Label/Forms.....	137-141

REQUIRED DOCUMENTS SCHEDULE

This table is intended to serve as a convenient tool for listing forms and documents required at different times. It is neither exhaustive nor must be considered a Contract Document by itself. Therefore, the users must review the entire Contract Documents and become familiar with the required documentation and the submittal schedule associated with each document.

Bidder's attention is directed to the City's Municipal Code §22.0807(e), (3)-(5) for important information regarding required documentation.

The specified EOC forms are all available for download from the EOC Program's web site at:

<http://www.sandiego.gov/eoc/forms/index.shtml>

ITEM	WHEN	BY	WHAT	FORMS ARE DUE WITH:	
				TECHNICAL PROPOSAL	PRICE PROPOSAL
1.	BID DUE DATE/TIME	ALL BIDDERS	Price Proposal Form		√
2.	BID DUE DATE/TIME	ALL BIDDERS	Non-collusion Affidavit to be Executed By Bidder and Submitted with Bid under 23 USC 112 and PCC 7106		√
3.	BID DUE DATE/TIME	ALL BIDDERS	Contractors Certification of Pending Actions		√
4.	BID DUE DATE/TIME	ALL BIDDERS	Equal Benefits Ordinance Certification of Compliance		√
5.	BID DUE DATE/TIME	ALL BIDDERS	Form AA05 – Design-Build List of Subcontractors		√
6.	BID DUE DATE/TIME	ALL BIDDERS	Form AA15 - Design-Build List of Subcontractors	√	
7.	BID DUE DATE/TIME	ALL BIDDERS	Form AA25 - Design-Build Named Equipment/Material Supplier List		√
8.	BID DUE DATE/TIME	ALL BIDDERS	Form AA30 - Design-Build Named Equipment/Material Supplier List	√	
9.	WITHIN 3 WORKING DAYS OF PUBLIC RANKING MEETING	ALL BIDDERS	Form AA60 – List of Work Made Available	√ (if submitted with the Proposal)	
10.	WITHIN 3 WORKING DAYS OF PUBLIC RANKING MEETING	ALL BIDDERS	SLBE-ELBE Good Faith Documentations	√ (If submitted with the Proposal)	
11.	WITHIN 3 WORKING DAYS OF PUBLIC RANKING MEETING	ALL BIDDERS	Proof of Valid DBE-MBE-WBE-DVBE Certification Status e.g., Certs.	√ (if submitted with the Proposal)	

REQUIRED DOCUMENTS SCHEDULE

ITEM	WHEN	BY	WHAT	FORMS ARE DUE WITH:	
				TECHNICAL PROPOSAL	PRICE PROPOSAL
12.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Names of the principle individual owners of the Apparent Low Bidder - In the event the firm is employee owned or publicly held, then the fact should be stated and the names of the firm's principals and officers shall be provided.		
13.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	If the Contractor is a Joint Venture, the following information must be submitted: o Joint Venture Agreement o Joint Venture License		
14.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contract Forms - Agreement		
15.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contract Forms – Performance Bonds and Labor and Materialmen's Bond		
16.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Certificates of Insurance and Endorsements		
17.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractor Certification - Drug-Free Workplace		
18.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractor Certification - American with Disabilities Act		
19.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractors Standards - Pledge of Compliance		
20.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Form BB05 – Work Force Report		
21.	BY 5th OF EACH MONTH	CONTRACTOR	Form CC20 - Monthly Employment Report		
22.	BY 5th OF EACH MONTH	CONTRACTOR	Form CC25 - Monthly Invoicing Report		
23.	PRIOR TO ACCEPTANCE	CONTRACTOR	Form CC10 - Contract Change Order (CCO)		

REQUIRED DOCUMENTS SCHEDULE

ITEM	WHEN	BY	WHAT	FORMS ARE DUE WITH:	
				TECHNICAL PROPOSAL	PRICE PROPOSAL
24.	PRIOR TO ACCEPTANCE	CONTRACTOR	Form CC15 - Final Summary Report		
25.	PRIOR TO ACCEPTANCE	CONTRACTOR	Affidavit of Disposal		

SPECIAL NOTICE
SMALL LOCAL BUSINESS ENTERPRISES (SLBE)
AND
EMERGING LOCAL BUSINESS ENTERPRISES (ELBE)
PROGRAM

1. INTRODUCTION. This contract is subject to the requirements of the SLBE Program as specified in the SLBE-ELBE section of the City’s EOCB Requirements included in The WHITEBOOK.

1.1. The Bidders are required to review The WHITEBOOK and become familiar with the detailed specifications including the required documentation and the submittal schedule as related to SLBE-ELBE program.

2. AMENDMENTS TO THE CITY’S GENERAL EOCB REQUIREMENTS.

III. Equal Employment Opportunity Outreach Program (A). DELETE in its entirety and **SUBSTITUTE** with the following:

A. Competitive Bids. If a contract is competitively solicited, the Apparent Low Bidder shall submit a *Work Force Report (Form BB05)* or an Equal Employment Opportunity (EEO) Plan, within 10 Working Days after receipt by the Bidder of Contract forms to the City for approval as specified in the Notice of Intent to Award letter from the City.

3. AMENDMENTS TO THE CITY’S EOCB SLBE-ELBE REQUIREMENTS.

VIII. Subcontracting Efforts Review and Evaluation (2b)). DELETE in its entirety and **SUBSTITUTE** with the following:

b) “Make information of forthcoming opportunities available to SLBE-ELBE firms and arrange time for contracts and establish delivery schedules, where requirements permit, in a way that encourages and facilitates participation by SLBE-ELBE firms in the competitive process. This includes posting solicitations for bids or proposals for a minimum of 10 Working Days before the Bid or Proposal due date.”

VIII. Subcontracting Efforts Review and Evaluation (3) and (4). DELETE in its entirety and **SUBSTITUTE** with the following:

3. Good Faith Effort Documentation Requirements

If the stated SLBE-ELBE subcontractor participation percentages are not met, the Bidder shall submit, within 3 Working Days of the Public Ranking Meeting, information necessary to establish adequate good faith efforts were taken to meet the contract subcontractor participation percentages. The required documentation includes the following:

A. ADVERTISEMENT REQUIREMENTS

Advertisements for subcontract work must comply with the following requirements:

1. Advertisements must be published at least 10 Working Days prior to bid opening. Provide the names and dates of each publication of where the advertisement was published.

Note: The advertisement is not required to be published everyday for the 10 Working Days prior to bid opening.

2. There must be at least 2 advertisements published, 1 advertisement in a trade publication and 1 in a focus group publication. Additional advertising for SLBE-ELBE participation may be placed in newspapers, trade papers and on the Internet. For a listing of publications accepting advertisements, please visit the City's EOC home page at <http://www.sandiego.gov/eoc/>
 - 2.1 Newspaper advertisements must be in the Bids Wanted, Legal Notices section of the Classified Ads, Subcontracting Opportunities or Business Opportunities **NOT** the Employment Opportunities Section.
3. Advertisements must state which items or portions of work the Bidder is requesting subcontractor pricing.
 - 3.1 It is the Bidder's responsibility to demonstrate that enough work sufficient to meet the SLBE-ELBE subcontractor participation percentage was made available to SLBE-ELBE firms. The Bidder shall make as many items of Work available as possible to meet specified subcontracting participation percentage and at a minimum an amount of work equal to the specified subcontracting participation amount. If necessary to reach the specified subcontracting participation percentage, the Work shall include those items normally performed by the Bidder with its own forces or supplies and even items with a dollar value below 1/2 of 1% of the total Bid. Bidders shall utilize Form AA60 to demonstrate compliance with this requirement and submit the completed form with Good Faith Effort documentation.
4. Advertisements must state that Plans and Specifications are available at no cost to interested SLBE-ELBE firms and how to obtain them.
5. Advertisements must state that assistance is available from the Bidder for SLBE-ELBE Subcontractors in obtaining necessary equipment, supplies, or materials.
6. Advertisements must state that assistance is available from the Bidder for SLBE-ELBE firms in obtaining bonding, lines of credit, or insurance.
7. Bidders **MUST** provide proof of publication of each advertisement by providing the publication affidavit which must include a legible copy of the entire advertisement and the original ENTIRE page of the publication in which the advertisement appears.

B. SLBE-ELBE WRITTEN SOLICITATION REQUIREMENTS

Bidders must directly solicit SLBE-ELBE firms on the City's approved SLBE-ELBE list. Solicitations for Subcontractor or Supplier work must comply with the following requirements:

1. The solicitation must be dated and list the name of the SLBE-ELBE firm. Solicitations must be made to the SLBE-ELBE firms at least 10 Working Days prior to bid opening.

2. Solicitation must state which items or portions of work the Bidder is requesting subcontractor pricing.
 - 2.1 It is the Bidder's responsibility to demonstrate that enough work sufficient to meet the SLBE-ELBE subcontractor participation percentage was made available to SLBE-ELBE firms. The Bidder shall make as many items of Work available as possible to meet the specified subcontractor participation percentage and at a minimum an amount of work equal to the subcontractor participation amount. If necessary to reach the specified subcontracting participation percentage, the Work shall include those items normally performed by the Bidder with its own forces, supplies and even items with a dollar value below 1/2 of 1% of the total Bid. Bidders shall utilize Form AA60 to demonstrate compliance with this requirement and submit the completed form with Good Faith Effort documentation.
3. Solicitation must state that Plans and Specifications are available at no cost to interested SLBE-ELBE firms and how to obtain them.
4. Solicitations must state that assistance is available from the Bidder for SLBE-ELBE subcontractors in obtaining necessary equipment, supplies, or materials.
5. Solicitations must state that assistance is available from the Bidder for SLBE-ELBE firms in obtaining bonding, lines of credit, or insurance.
6. Bidder must solicit **ALL** SLBE-ELBE firms on the City's approved list, who have the NAICS code for the subcontract work sought by the Contractor.
7. Bidders must provide copies of **ALL** solicitations with one of the following forms of verification that the solicitations were sent:
 - a) If mailed: provide copies of the metered envelopes or certified mail receipts.
 - b) If faxed: provide copies of the fax transmittal confirmation sheet(s).
 - c) If emailed: provide copies of the email delivery confirmation sheet(s).No credit shall be given for error messages, busy, cancelled, undeliverable, etc.

C. SLBE-ELBE WRITTEN SOLICITATION FOLLOW-UP REQUIREMENTS

Bidders must follow-up with all SLBE - ELBE firms that were notified of the subcontracting opportunities to determine their level of interest and commitment to bid the Project. When following up with the SLBE - ELBE firms, the Bidder must do the following:

1. Follow up communications must start no less than 5 Working Days prior to bid opening.
2. Bidders must follow up with all SLBE-ELBE firms in writing. Bidders must provide copies of **ALL** written follow up notices with one of the following forms of verification that the follow up notices were sent:

- a) If mailed: provide copies of the metered envelopes or certified mail receipts.
- b) If faxed: provide copies of the fax transmittal confirmation sheet(s).
- c) If emailed: provide copies of the email delivery confirmation sheet(s).

No credit shall be given for error messages, busy, cancelled, undeliverable, etc.

3. Bidders must make at least 3 follow-up telephone calls to each SLBE - ELBE firm at least 5 days prior to bid opening date. Bidders must submit a telephone log as identified below.

- 3.1 Submit a telephone log, as proof of telephone call, with the following requirements: project name, name of person making the phone call, name of firm contacted, contact person's name, date of call, time of call, and details of conversation.

D. SUBCONTRACT AWARD SUMMARY

Bidders must act in good faith with interested SLBE-ELBE firms and may only reject bids for legitimate business reasons. The Bidder must submit the following documentation:

1. A **DETAILED** summary sheet which includes Bid item number, scope of work, Subcontractor or Supplier name, bid amount, certification type, Subcontractor or Supplier selection and reason for selection or non-selection of all the Subcontractor or Supplier that responded.
2. Copies of all Subcontractor or Suppliers bids received including bids for areas of work that were not included in the outreach and quotes from both certified and non-certified Subcontractors or Suppliers. Subcontractor bid amounts **MUST** match the bid-listed dollar amounts on form AA05 and AA25 submitted with Bidders sealed bid and the summary sheet dollar amounts **MUST** also match these amounts. If the Bidder decides to self-perform a scope of work, the Bidder **MUST** submit a detailed quote to show that the Bidder's price is competitive to the price of the subcontractors that responded to outreach efforts. All dollar amounts and scopes of work on the Subcontractor or Supplier bid must not be altered by the prime Bidder. If a revision is necessary, a revised quote must be obtained and provided. All verbal quotes **MUST** be substantiated by corresponding written quote from the Subcontractor or Supplier.

E. OUTREACH ASSISTANCE REQUIREMENTS

Written notice of subcontractor opportunities must be forwarded to local organizations or groups to assist with outreach efforts. When contacting local organizations or groups, the Bidder **must do** the following:

1. Contact a minimum of 5 local organizations or groups to provide assistance in contacting, recruiting and using SLBE-ELBE firms by written notice. For a listing of organizations or groups offering assistance, please visit the City's EOC home page at <http://www.sandiego.gov/eoc/>

2. Written notice must indicate the date of the notice and name of the local organization or group. Written notices must be forwarded to the organizations or groups at least 10 Working Days prior to bid opening.
3. Written notice must state which items or portions of work the Bidder is requesting subcontractor pricing.
 - 3.1 It is the Bidder's responsibility to demonstrate that enough work sufficient to meet the SLBE-ELBE subcontractor participation percentage was made available to SLBE-ELBE firms. The Bidder shall make as many items of Work available as possible to meet the subcontractor participation percentage, and at a minimum an amount of work equal to the subcontracting participation amount. If necessary to reach the subcontractor participation percentage, the work should include those items normally performed by the Bidder with its own forces, supplies and even items with a dollar value below 1/2 of 1% of the total bid. Bidders shall utilize Form AA60 to demonstrate compliance with this requirement and submit the completed form with Good Faith Effort documentation.
4. Written notice must state that Plans and Specifications are available at no cost to interested SLBE-ELBE firms and how to obtain them.
5. Written notice must state that assistance is available from the Bidder for SLBE-ELBE Subcontractors in obtaining necessary equipment, supplies, or materials.
6. Written notice must state that assistance is available from the Bidder for SLBE-ELBE firms in obtaining bonding, lines of credit, or insurance.
7. Bidders must provide copies of **ALL** notices with one of the following forms of verification that the notices were sent:
 - a) If mailed: provide copies of the metered envelopes or certified mail receipts.
 - b) If faxed: provide copies of the fax transmittal confirmation sheet(s).
 - c) If emailed: provide copies of the email delivery confirmation sheet(s).

No credit shall be given for error messages, busy, cancelled, undeliverable, etc.

4. **SUBCONTRACTING PARTICIPATION PERCENTAGES.** The City has determined a **10% mandatory SLBE-ELBE** subcontracting participation. The City has also determined a **voluntary subcontractor participation of 10%**, equating to **20% in total subcontractor participation**, to enhance competition and maximize subcontracting opportunities. Percentages are based on the Contract Price, less Field Orders, Additive, Deductive and Allowance Bid items.
5. **PRE-PROPOSAL MEETING.** A Pre-Proposal Meeting is scheduled for this contract as specified in the RFP. The purpose of this meeting is to inform prospective Bidders of the submittal requirements and provisions relative to the SLBE Program. Bidders are strongly encouraged to attend the Pre- Proposal Meeting to better understand the Good Faith Effort requirements of this contract.

6. **MANDATORY CONDITIONS.** Bid will be declared **non-responsive** if the Bidder fails the following mandatory conditions.
 - 6.1. Bidder's inclusion of SLBE-ELBE certified subcontractors at the overall mandatory participation percentage identified in this document; OR
 - 6.2. Bidder's submission of Good Faith Effort documentation demonstrating the Bidder made a good faith effort to outreach to and include SLBE-ELBE Subcontractors required in this document within 3 Working Days of the Public Ranking meeting if the overall mandatory participation percentage is not met.
7. **BID DISCOUNT.** This contract **is not** subject to the Bid Discount program as described in The WHITEBOOK, SLBE-ELBE Program Requirements, Section IV(2).
8. **RESOURCES.** The current list of certified SLBE-ELBE firms can be found on the EOC Department website.

CITY OF SAN DIEGO, CALIFORNIA

INVITATION TO BIDS

1. **DESCRIPTION OF WORK:** The Work involves furnishing all labor, materials, equipment, services, and other incidental works and appurtenances for the design and construction of the Project as described in the RFP.

- Design-Build Bridging Documents included as attachment to the RFP.

2. **LOCATION OF WORK:** The location of Work is as follows:

Otay Water Treatment Plant Facility
1500 Wueste Road
Chula Vista, CA 91915

3. **CONTRACT TIME:** The Contract Time for completion of the Work shall be **260 Working Days**

4. **WAGE RATES:** Prevailing wages are not applicable to this project unless specified otherwise on the cover page of these specifications and when included in these specifications. See Funding Agency Provisions that follow this Invitation to Bid for more information.

5. **INSURANCE REQUIREMENTS:** Upon receipt of the City's Notice of Intent to Award letter, the Contractor will be asked to submit all certificates of insurance and endorsements to the City.

Refer to sections 7-3, "LIABILITY INSURANCE", and 7-4, "WORKERS' COMPENSATION INSURANCE" of the Supplementary Special Provisions (SSP) for the insurance requirements which must be met.

You must ensure all required insurance certificates and endorsements are submitted accurately and on time. Failure to provide the requisite insurance documents by the date stated in the City's Notice of Intent to Award will result in delay of contract award and may result in annulment of the contract award or other more severe sanctions as provided in the City's Municipal Code §22.0807(e),(3)-(5).

Tony Heinrichs, Director
Public Works Department

INSTRUCTIONS TO BIDDERS

- 1. PREQUALIFICATION OF CONTRACTORS:** The contractor(s) who intend to submit Bid or Proposal in response to this invitation to bid, or RFP's for GRC or As-Needed Design-Build Task Orders valued over \$50,000, must be pre-qualified for the total amount proposed, inclusive of all alternate bid items or the specified Task Order limits prior to the date of Bid submittal.

For Design-Build As-Needed contracts, if the total active work issued would limit the RFP for a new Task Order authorization to only 1 eligible firm of the short-listed firms, thus creating a non-competitive situation, that Task Order authorization(s) will be held until enough active work is deemed by the City to be completed and closed, thereby creating available eligibility for competition, or the City at its sole discretion can advertize a new open RFP for the needed project requirement.

Bids from contractors who have not been pre-qualified as applicable, and Bids that exceed the maximum dollar amount at which contractors are pre-qualified, will be deemed **non-responsive** and ineligible for award or a Task Order authorization. Complete information and prequalification questionnaires are available at:

<http://www.sandiego.gov/engineering-cip/services/consultcontract/prequal.shtml>

The completed questionnaire, financial statement, and bond letter or a copy of the contractor's SLBE-ELBE certification and bond letter, must be submitted no later than 2 weeks prior to the bid opening to the Public Works Department - Engineering & Capital Projects Prequalification Program, 1010 Second Avenue, Suite 1200, San Diego, CA 92101. For additional information or the answer to questions about the prequalification program, please contact David Stucky at 619-533-3474 or dstucky@sandiego.gov.

- 2. CONTRACTOR REGISTRATION:** Prospective bidder(s) as well as existing contractors and suppliers are required to register with the City's EOCP. Refer to 2-17, "CONTRACTOR REGISTRATION" for details.
- 3. CITY'S RESPONSES AND ADDENDA:** The City at its option, may respond to any or all questions submitted in writing, via letter, or FAX in the form of an addendum. No oral comment shall be of any force or effect with respect to this solicitation. The changes to the Contract Documents through addendum are made effective as though originally issued with the Bid. The Bidders shall acknowledge the receipt of Addenda on the form provided for this purpose in the Bid.
- 4. CITY'S RIGHTS RESERVED:** The City reserves the right to cancel the Invitation to Bids at any time, and further reserves the right to reject submitted Bids, without giving any reason for such action, at its sole discretion and without liability. Costs incurred by the Bidder(s) as a result of preparing Bids under the Invitation to Bid shall be the sole responsibility of each bidder. The Invitation to Bid creates or imposes no obligation upon the City to enter a contract.
- 5. CONTRACT PRICING FORMAT:** This solicitation is for a Lump Sum contract with Unit Price provisions as set forth in the Bid Proposal Form(s), Volume 2 unless specified otherwise such as as-needed contracts e.g., GRC in the Contract Documents.

- 6. SUBMITTAL OF “OR EQUAL” ITEMS:** See 4-1.6, “Trade Names or Equals.”
- 7. AWARD PROCESS:** The Award of this contract is contingent upon the Contractor’s compliance with all conditions precedent to Award, including the submittal of acceptable insurance and surety bonds pursuant to San Diego Municipal Code § 22.3007. If the responsible Bid does not exceed the City's engineering estimate, the City will, in most cases, prepare contract documents for execution within 3 weeks of the date of the Bid opening and award the Contract within 5 Working Days of receipt of properly executed Contract, bond, and insurance documents.

This contract is deemed to be awarded, and effective, only upon the signing of the Contract by the Mayor or designee of the City.

- 8. SUBCONTRACT LIMITATIONS:** The Bidder’s attention is directed to Standard Specifications for Public Works Construction, Section 2-3, “SUBCONTRACTS” which requires the Contractor to perform not less than the amount therein stipulated with its own forces. Failure to comply with these requirements may render the Bid **non-responsive** and ineligible for award.
- 9. AVAILABILITY OF PLANS AND SPECIFICATIONS:** Contract Documents may be obtained by visiting the City’s website: <http://www.sandiego.gov/engineering-cip/services/consultcontract/advertising.shtml>. Plans and Specifications for this contract are also available for review in the office of the City Clerk or Public Works Contracting Group at the address listed below.
- 10. QUESTIONS:** Questions about the meaning or intent of the Contract Documents as related to the scope of Work and of technical nature shall be directed to the Project Manager prior to Bid opening. Interpretations or clarifications considered necessary by the Project Manager in response to such questions will be issued by Addenda, which will be uploaded to eBidboard (or mailed or delivered to all parties recorded by the City as having received the Contract Documents for Minor Construction contracts).

The Director (or designee), Public Works Department is the officer responsible for opening, examining, and declaring of competitive Bids submitted to the City for the acquisition, construction and completion of any public improvement except when otherwise set forth in these documents. Questions in these areas of responsibility (e.g., i.e. Pre-qualification, SCOPE information, bidding activities, bonds and insurance, etc. as related to this contract shall be addressed to the Contract Administration, Public Works Contracting Group, 1200 Third Avenue, Suite 200, San Diego, California, 92101, Telephone No. (619) 236-6000.

Questions received less than 14 days prior to the date for opening of Bids may not be answered. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. It is the Bidder's responsibility to become informed of any addenda that have been issued and to include all such information in its Bid.

- 11. ELIGIBLE BIDDERS:** No person, firm, or corporation shall be allowed to make, file, or be interested in more than 1 Bid for the same work unless alternate Bids are called for. A person, firm or corporation who has submitted a sub-proposal to a Bidder, or who has quoted prices on materials to a Bidder, is not hereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or from submitting a Bid in its own behalf.

12. SAN DIEGO BUSINESS TAX CERTIFICATE: All Contractors, including Subcontractors, not already having a City of San Diego Business Tax Certificate for the work contemplated shall secure the appropriate certificate from the City Treasurer, Civic Center Plaza, first floor, before the Contract can be executed.

13. PROPOSAL FORMS: Bid shall be made only upon the Bidding Documents i.e., Proposal form attached to and forming a part of the specifications. The signature of each person signing shall be in longhand.

The entire specifications for the bid package do not need to be submitted with the bid. Bidder shall complete and submit, only, all pages in the "Bidding Document" Section (see Volume 2) as their Bid per the schedule given under "Required Documents Schedule" (see Volume 1). Bidder is requested to retain for their reference other portions of the Contract Documents that are not required to be submitted with the Bid.

The City may require any Bidder to furnish a statement of experience, financial responsibility, technical ability, equipment, and references.

Bids and certain other specified forms and documents shall be enclosed in a sealed envelope and shall bear the title of the work and name of the Bidder and the appropriate State Contractors License designation which the Bidder holds.

Bids may be withdrawn by the Bidder prior to, but not after, the time fixed for opening of Bids.

14. BIDDERS' GUARANTEE OF GOOD FAITH (BID SECURITY):

With the exception of the contracts valued \$5,000 or less, GRC and Design-Build contracts, and contracts subject to the Small and Local Business Program of \$250,000 or less e.g., ELBE contracts, each Bidder shall accompany its Bid with either a cashier's check upon some responsible bank, or a check upon such bank properly certified or an approved corporate surety bond payable to the City of San Diego, for an amount of not less than 10% of the aggregate sum of the Bid, which check or bond, and the monies represented thereby shall be held by the City as a guarantee that the Bidder, if awarded the contract, will in good faith enter into such contract and furnish the required final bonds.

The Bidder agrees that in case of Bidder's refusal or failure to execute this contract and give required final bonds, the money represented by a cashier's or certified check shall remain the property of the City, and if the Bidder shall fail to execute this contract, the Surety agrees that it will pay to the City damages which the City may suffer by reason of such failure, not exceeding the sum of 10% of the amount of the Bid.

A Bid received without the specified bid security will be rejected as being **non-responsive**.

15. AWARD OF CONTRACT OR REJECTION OF BIDS:

This contract may be awarded to the lowest responsible and reliable Bidder (for Design-Build contracts refer to the RFP for the selection and award information). Bidders shall complete the entire Bid schedule (e.g., schedule of prices). Incomplete price schedules will be rejected as being **non-responsive**.

The City reserves the right to reject any or all Bids, and to waive any informality or technicality in Bids received and any requirements of these specifications as to bidding procedure.

Bidders will not be released on account of their errors of judgment. Bidders may be released only upon receipt by the City from the Bidder within 3 Working Days, excluding Saturdays, Sundays, and state holidays, after the opening of Bids, of written notice which includes proof of honest, credible, clerical error of material nature, free from fraud or fraudulent intent, and of evidence that reasonable care was observed in the preparation of the Bid.

A non-selected Bidder may protest award of the Contract to the selected Bidder by submitting a written "Notice of Intent to Protest" including supporting documentation which shall be received by Public Works Contracting Group no later than 10 days after the City's announcement of the selected Bidder or no later than 10 days from the date that the City issues notice of designation of a Bidder as non-responsible in accordance with San Diego Municipal Code Chapter 2, § 22.3029, "Protests of Contract Award."

The City of San Diego will not discriminate with regard to race, religious creed, color, national origin, ancestry, physical handicap, marital status, sex or age, in the award of contracts.

Each Bid package properly executed as required by these specifications shall constitute a firm offer, which may be accepted by the City within the time specified in the Invitation to Bids.

The City reserves the right to evaluate all Bids and determine the lowest Bidder (or winner for Design-Build contracts) on the basis of any proposed alternates, additive items or options, at its discretion.

- 16. BID RESULTS:** The Bid opening by the City shall constitute the public announcement of the Apparent Low Bidder (or Apparent Winner in case of Design-Build contracts). In the event that the Apparent Low Bidder (or Apparent Winner in case of Design-Build contracts) is subsequently deemed non-responsive or non-responsible, a public announcement will be posted in the City's web page, with the name of the newly designated Apparent Low Bidder (or Apparent Winner in case of Design-Build contracts).

To obtain Bid results, either attend Bid opening, review the results on the City's web site, or provide a self-addressed, stamped envelope, referencing Bid number, and Bid tabulation will be mailed to you upon verification of extensions. Due to time constraints, Bid results cannot be given out over the telephone.

- 17. THE CONTRACT:** The Bidder to whom award is made shall execute a written contract with the City of San Diego and furnish good and approved bonds and insurance certificates specified by the City within 10 Working Days after receipt by Bidder of a form of contract for execution unless an extension of time is granted to the Bidder in writing.

If the Bidder takes longer than 10 Working Days to fulfill these requirements, then the additional time taken shall be added to the Bid guarantee. The Contract shall be made in the form adopted by the City, which includes the provision that no claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.

If the Bidder to whom the award is made fails to enter into the contract as herein provided, the award may be annulled and the Bidder's Guarantee of Good Faith will be subject to forfeiture. An award may be made to the next lowest responsible and reliable Bidder who shall fulfill every stipulation embraced herein as if it were the party to whom the first award was made.

For contracts that are not Design-Build, pursuant to the San Diego City Charter section 94, the City may only award a public works contract to the lowest responsible and reliable Bidder. The City will require the Apparent Low Bidder to (i) submit information to determine the Bidder's responsibility and reliability, (ii) execute the Contract in form provided by the City, and (iii) furnish good and approved bonds and insurance certificates specified by the City within 10 Working Days, unless otherwise approved by the City, in writing after the Bidder receives notification from the City, designating the Bidder as the Apparent Low Bidder and formally requesting the above mentioned items.

The award of the Contract is contingent upon the satisfactory completion of the above mentioned items and becomes effective upon the signing of the Contract by the Mayor or designee. If the Apparent Low Bidder does not execute the Contract or submit required documents and information, the City may award the Contract to the next lowest responsible and reliable Bidder who shall fulfill every condition precedent to award. A corporation designated as the Apparent Low Bidder shall furnish evidence of its corporate existence and evidence that the officer signing the Contract and bond for the corporation is duly authorized to do so.

18. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK: The Bidder shall examine carefully the Project Site, the Plans and Specifications, the GRC Unit Price Books if applicable, other materials as described in the Special Provisions, Section 2-7, and the proposal forms (e.g., Bidding Documents) therefore. The submission of a Bid or GRC Task Order Proposal shall be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of Work, the quantities of materials to be furnished, and as to the requirements of the Bidding Documents Proposal, Plans, and Specifications.

19. DRUG-FREE WORKPLACE:

a) General:

City projects are subject to City of San Diego Resolution No. R-277952 adopted on May 20, 1991. Bidders shall become aware of the provisions of Council Policy 100-17 which was established by Resolution No. R-277952. The policy applies equally to the Contractor and Subcontractors. The elements of the policy are outlined below.

b) Definitions:

"Drug-free workplace" means a site for the performance of work done in connection with a contract let by City of San Diego for the construction, maintenance, or repair of any facility or public work by an entity at which employees of the entity are prohibited from engaging in the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance in accordance with the requirements of this section.

"Employee" means the employee of a contractor directly engaged in the performance of work pursuant to a contract as described in Section 3, "City Contractor Requirements."

"Controlled substance" means a controlled substance in schedules I through V of Section 202 of the Controlled Substances Act (21 U.S.C. Sec. 812).

"Contractor" means the department, division, or other unit of a person or organization responsible to the contractor for the performance of a portion of the work under the contract.

c) City Contractor Requirements:

Every person or organization awarded a contract or grant by the City of San Diego for the provision of services shall certify to the City that it will provide a drug-free workplace by doing all following:

- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's organization's workplace and specifying the actions that will be taken against employees for violations of the prohibition.
- b. Establishing a drug-free awareness program to inform employees about all of the following:
 - i. The dangers of drug abuse in the workplace.
 - ii. The person's or organization's policy of maintaining a drug-free workplace.
 - iii. Any available drug counseling, rehabilitation, and employee assistance programs.
 - iv. The penalties that may be imposed upon employees for drug abuse violations.
- c. Posting the statement required by subdivision (1) in a prominent place at contractor's main office. For projects large enough to necessitate a construction trailer at the job site, the required signage would also be posted at the Site.

The Contractor shall include in each subcontract agreement language which indicates the Subcontractor's agreement to abide by the provisions of subdivisions a) through c) above. The Contractors and Subcontractors shall be individually responsible for their own drug-free workplace programs.

Note: The requirements of a drug-free awareness program can be satisfied by periodic tailgate sessions covering the various aspects of drug-abuse education. Although an in-house employee assistance program is not required, contractors should be able to provide a listing of drug rehabilitation and counseling programs available in the community at large.

Questions about the City's Drug-free Workplace Policy shall be referred to the Contract Specialist, Public Works Contracting Group.

20. AMERICANS WITH DISABILITIES ACT:

- a) General: City projects are subject to City of San Diego Resolution No. R-282153 adopted on June 14, 1993. The Bidders shall become aware of the provisions of Council Policy 100-04 which was established by Resolution No. R-282153. The policy applies equally to the Contractor and all Subcontractors. The elements of the policy are outlined below.

b) Definitions:

"Qualified individual with a disability" means an individual with a disability who satisfies the requisite skill, experience, education and other job-related requirements of the employment position such individual holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.

"Employee" means the employee of the Contractor directly engaged in the performance of Work.

c) The City Requirements: Every person or organization entering into a contractual agreement with or receiving a grant from the City of San Diego shall certify to the City of San Diego that it will comply with the ADA by adhering to all of the provisions of the ADA listed below.

- i. The Contractor shall not discriminate against qualified persons with disabilities in any aspects of employment, including recruitment, hiring, promotions, conditions and privileges of employment, training, compensation, benefits, discipline, layoffs, and termination of employment.
- ii. No qualified individual with a disability may be excluded on the basis of disability, from participation in, or be denied the benefits of services, programs, or activities by the Contractor or Subcontractors providing services for the City.
- iii. The Contractor shall post a statement addressing the requirements of the ADA in a prominent place at the worksite. The Contractor shall include in each subcontract agreement, language which indicates the Subcontractor's agreement to abide by the provisions of subdivisions (a) through (c) inclusive of Section 3. The Contractor and Subcontractors shall be individually responsible for their own ADA employment programs. Questions about the City's ADA Policy should be referred to the Contract Administrator.

21. CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE: This contract is subject to City of San Diego Municipal Code §22.3224 as amended 11/24/08 by ordinance O-19808. Bidders shall become aware that the requirements apply to Contractors and Subcontractors for contracts greater than \$50,000 in value.

Upon award, amendment, renewal, or extension of this contract, the Contractors shall complete a Pledge of Compliance attesting under penalty of perjury that they complied with the requirements of this section.

The Contractors shall ensure that their Subcontractors whose subcontracts are greater than \$50,000 in value complete a Pledge of Compliance attesting under penalty of perjury that they complied with the requirements of this section. Subcontractors may access the Pledge of Compliance at:

http://www.sandiego.gov/purchasing/pdf/contractor_standards_questionnaire.pdf

The Contractors shall include in each subcontract agreement, language which requires Subcontractors to abide by the provisions of City of San Diego Municipal Code §22.3224. A sample provision is as follows:

“**Compliance with San Diego Municipal Code §22.3224:** Subcontractor acknowledges that it is familiar with the requirements of San Diego Municipal Code §22.3224 (“Contractor Standards”), and agrees to comply with requirements of that section. The Subcontractor further agrees to complete the Pledge of Compliance, incorporated herein by reference.”

- 22. NOTICE OF LABOR COMPLIANCE PROGRAM APPROVAL:** The City of San Diego received initial approval as a Labor Compliance Program on August 11, 2003. The Labor Compliance Program Manual is available at:

<http://www.sandiego.gov/eoc/laborcompliance/#manual>.

The limited exemption from prevailing wages pursuant to Labor Code §1771.5(a) does not apply to contracts under jurisdiction of the Labor Compliance Program. Inquiries, questions, or assistance about the Labor Compliance Program should be directed to: Equal Opportunity Contracting Program, 1200 Third Ave., Suite 200 MS56P, San Diego, CA 92101, Tel. 619-236-6000.

- 23. PAYROLL RECORDS:** The Contractor's attention is directed to the City of San Diego Labor Compliance Program, Section IV, pages 4-7, and the State of California Labor Code §§ 1771.5(b) and 1776 (Stats. 1978, Ch. 1249). These require, in part, that the Contractor and Subcontractors maintain and furnish to the City, at a designated time, a certified copy of each weekly payroll containing a statement of compliance signed under penalty of perjury.

The Contractor and Subcontractors shall submit weekly certified payrolls online via Prism® i.e., the City's web-based labor compliance program. Instructions on how to use the system will be provided to the Contractor after the award.

The Contractor shall be responsible for the compliance with these provisions by Subcontractors. The City shall withhold contract payments when payroll records are delinquent or inadequate, or when it is established after investigation that underpayment has occurred.

- 24. APPRENTICES ON PUBLIC WORKS:** The Contractor shall abide by the requirements of §§1777.5, 1777.6, and 1777.7 of the State of California Labor Code concerning the employment of apprentices by contractors and subcontractors performing public works contracts.

- 25. EQUAL BENEFITS:** This contract is subject to the City's Equal Benefits Ordinance (EBO), Chapter 2, Article 2, Division 43 of the San Diego Municipal Code (SDMC).

CONTRACT FORMS AGREEMENT

DESIGN-BUILD AGREEMENT

This Design-Build agreement [Contract] is made and entered into this 01 day of February, 20 13, by and between The City of San Diego [City], a municipal corporation, and **ORION CONSTRUCTION CORPORATION** [Design-Builder], for the purpose of designing and constructing the **OTAY WATER TREATMENT PLANT CONCRETE WORK DESIGN-BUILD CONTRACT** in the amount of ONE MILLION TWO HUNDRED EIGHTY SEVEN THOUSAND DOLLARS AND 00/100 (\$1,287,000.00). City and Design-Builder are referred to herein as the "Parties."

RECITALS

- A. City desires to construct the Project located in the City of San Diego, California.
- B. City desires to contract with a single entity for design and construction of the Project, as set forth in this agreement.
- C. The City has issued a Request for Proposals [RFP] for **K-12-5581-DBA-3** pursuant to which the City solicited Proposals from design-build teams to design, rehabilitate, and build the Project.
- D. In accordance with City's RFP, Design-Builder submitted a Proposal for the Project and is prepared to enter into this agreement.
- E. The City has selected the Design-Builder to perform, either directly or pursuant to Subcontracts, hereinafter defined, the design, engineering, and construction services set forth in this agreement and the Contract Documents, hereinafter defined.
- F. The Design-Builder is ready, willing, and able to perform the services required in accordance with the terms and conditions of this agreement.
- G. Execution of this agreement by the Design-Builder is a representation that the Design-Builder has visited the Site, become familiar with the local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

In consideration of the above recitals and the mutual covenants and conditions set forth herein, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby set forth their mutual covenants and understandings as follows.

INTRODUCTORY PROVISIONS

- A. The above referenced recitals are true and correct and are incorporated into this agreement by this reference.
- B. All Exhibits referenced in this agreement are incorporated into the Contract by this reference.
- C. This agreement amends the Standard Specifications for Public Works Construction [The GREENBOOK], including supplement amendments set forth in the City of San Diego Supplement [City Supplement]. All changes and or additions are stated herein and all other provisions remain unchanged.

**CONTRACT FORMS (continued)
AGREEMENT**

IN WITNESS WHEREOF, this agreement is signed by the City of San Diego, acting by and through its Mayor or designee, pursuant to Resolution No. R - 307852 authorizing such execution.

THE CITY OF SAN DIEGO

APPROVED AS TO FORM AND LEGALITY

Jan I. Goldsmith, City Attorney

By Paul D. Chopin By Mark M. Mercer

Print Name: Paul D. Chopin
Principal Contract Specialist

Print Name: Mark M. Mercer
Deputy City Attorney

Date: 02/01/13

Date: 2/14/13

CONTRACTOR

By Richard Dunking

Print Name: RICHARD DUNKING

Title: PRESIDENT

Date: 12/11/2012

City of San Diego License No.: 549309

State Contractor's License No.: B1992002970

CONTRACT FORMS (continued)
PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND

FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:

ORION CONSTRUCTION CORPORATION, a corporation, as principal, and LIBERTY MUTUAL INSURANCE COMPANY, a corporation authorized to do business in the State of California, as Surety, hereby obligate themselves, their successors and assigns, jointly and severally, to The City of San Diego a municipal corporation in the sum of ONE MILLION TWO HUNDRED EIGHTY SEVEN THOUSAND DOLLARS AND 00/100 (\$1,287,000.00) for the faithful performance of the annexed contract, and in the sum of ONE MILLION TWO HUNDRED EIGHTY SEVEN THOUSAND DOLLARS AND 00/100 (\$1,287,000.00) for the benefit of laborers and materialmen designated below.

Conditions:

If the Principal shall faithfully perform the annexed contract OTAY WATER TREATMENT PLANT CONCRETE WORK DESIGN-BUILD CONTRACT; Bid No. K-12-5581-DBA-3, San Diego, California then the obligation herein with respect to a faithful performance shall be void; otherwise it shall remain in full force.

If the Principal shall promptly pay all persons, firms and corporations furnishing materials for or performing labor in the execution of this contract, and shall pay all amounts due under the California Unemployment Insurance Act then the obligation herein with respect to laborers and materialmen shall be void; otherwise it shall remain in full force.

The obligation herein with respect to laborers and materialmen shall inure to the benefit of all persons, firms and corporations entitled to file claims under the provisions of Chapter 3 of Division 5 of Title I of the Government Code of the State of California or under the provisions of Section 3082 et seq. of the Civil Code of the State of California.

Changes in the terms of the annexed contract or specifications accompanying same or referred to therein shall not affect the Surety's obligation on this bond, and the Surety hereby waives notice of same.

CONTRACT FORMS (continued)
PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND

The Surety shall pay reasonable attorney's fees should suit be brought to enforce the provisions of this bond.

Dated December 13, 2012

Approved as to Form and Legality

ORION CONSTRUCTION CORPORATION

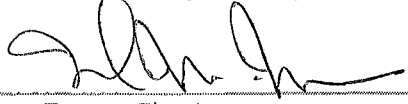
Principal

By 

RICHARD DOWLING, PRESIDENT

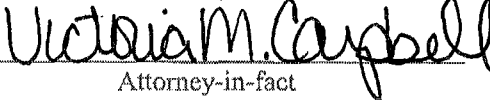
Printed Name of Person Signing for Principal

Jan I. Goldsmith, City Attorney

By 
Deputy City Attorney

LIBERTY MUTUAL INSURANCE COMPANY

Surety

By 
Attorney-in-fact

VICTORIA M. CAMPBELL

330 N Brand Blvd., Ste 500

Local Address of Surety

Glendale, CA 91203

Local Address (City, State) of Surety

818-956-4257

Local Telephone No. of Surety

Premium \$ 15,452.00

Bond No. 024043814

Approved:


Paul D. Chopin
Principal Contract Specialist

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

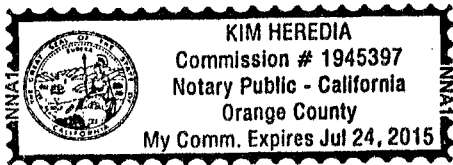
State of California

County of Orange

On DEC 13 2012 before me, Kim Heredia, Notary Public
DATE NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"

personally appeared Victoria M Campbell, who proved to me on the basis of satisfactory evidence to be the person(s) whose names (s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.



WITNESS my hand and official seal.

[Signature]
SIGNATURE OF NOTARY

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

- INDIVIDUAL
- CORPORATE OFFICER

TITLE(S)

- PARTNER(S) LIMITED
- GENERAL

ATTORNEY-IN-FACT

TRUSTEE(S)

GUARDIAN/CONSERVATOR

OTHER: _____

DESCRIPTION OF ATTACHED DOCUMENT

TITLE OR TYPE OF DOCUMENT

NUMBER OF PAGES

DEC 13 2012

DATE OF DOCUMENT

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

Liberty Mutual Insurance Company

SIGNER(S) OTHER THAN NAMED ABOVE

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 5570780

American Fire and Casualty Company
The Ohio Casualty Insurance Company
West American Insurance Company

Liberty Mutual Insurance Company
Peerless Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of Ohio, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, that Peerless Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Christina Johnson; Erik Johansson; Kim Heredia; Linde Hotchkiss; Melissa Tetzlaff; Shirley Bauman; Victoria M. Campbell

all of the city of Irvine, state of CA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 17th day of September, 2012.



American Fire and Casualty Company
The Ohio Casualty Insurance Company
Liberty Mutual Insurance Company
Peerless Insurance Company
West American Insurance Company

By: Gregory W. Davenport
Gregory W. Davenport, Assistant Secretary

STATE OF WASHINGTON ss
COUNTY OF KING

On this 17th day of September, 2012, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, Peerless Insurance Company and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Seattle, Washington, on the day and year first above written.



By: KD Riley
KD Riley, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company, which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Gregory W. Davenport, Assistant Secretary to appoint such attorney-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, David M. Carey, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 13th day of December, 2012.



By: David M. Carey
David M. Carey, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, bank deposit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

CONTRACTOR CERTIFICATION

DRUG-FREE WORKPLACE


PROJECT TITLE: Otay Water Treatment Plant Concrete Work Design-Build Contract

I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-17 regarding Drug-Free Workplace as outlined in INSTRUCTION TO BIDDERS, "Drug-Free Workplace", of the project specifications, and that;

ORION CONSTRUCTION CORPORATION

(Name under which business is conducted)

has in place a drug-free workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of subdivisions a) through c) of the policy as outlined.

Signed 
Printed Name RICHARD DOWSING
Title PRESIDENT

CONTRACTOR CERTIFICATION

AMERICAN WITH DISABILITIES ACT (ADA) COMPLIANCE CERTIFICATION

PROJECT TITLE: Otay Water Treatment Plant Concrete Work Design-Build Contract

I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-4 regarding the American With Disabilities Act (ADA) outlined in the INSTRUCTION TO BIDDERS, "American With Disabilities Act", of the project specifications, and that;

ORION CONSTRUCTION CORPORATION

(Name under which business is conducted)

has in place workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of the policy as outlined.

Signed R. Dowsing

Printed Name RICHARD DOWSING

Title PRESIDENT

CONTRACTOR CERTIFICATION

CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE

PROJECT TITLE: Otay Water Treatment Plant Concrete Work Design-Build Contract

I declare under penalty of perjury that I am authorized to make this certification on behalf of OPION CONSTRUCTION CORPORATION, as Contractor, that I am familiar with the requirements of City of San Diego Municipal Code § 22.3224 regarding Contractor Standards as outlined in INSTRUCTION TO BIDDERS ("Contractor Standards"), of the project specifications, and that Contractor has complied with those requirements.

I further certify that each of the Contractor's subcontractors whose subcontracts are greater than \$50,000 in value has completed a Pledge of Compliance attesting under penalty of perjury of having complied with City of San Diego Municipal Code § 22.3224.

Dated this 11 Day of 12, 2 012.

Signed 

Printed Name RICHARD DOWSING

Title PRESIDENT

AFFIDAVIT OF DISPOSAL

WHEREAS, on the _____ DAY OF _____, 2____, the undersigned entered into and executed a contract with the City of San Diego, a municipal corporation, for:

OTAY WATER TREATMENT PLANT CONCRETE WORK DESIGN-BUILD CONTRACT
(Name of Task)

as particularly described in said contract and identified as Bid No. **K-12-5581-DBA-3**; SAP No. (WBS/CC/IO) **S-11059**, and **WHEREAS**, the specification of said contract requires the Contractor to affirm that "all brush, trash, debris, and surplus materials resulting from this project have been disposed of in a legal manner"; and **WHEREAS**, said contract has been completed and all surplus materials disposed of:

NOW, THEREFORE, in consideration of the final payment by the City of San Diego to said Contractor under the terms of said contract, the undersigned Contractor, does hereby affirm that all surplus materials as described in said contract have been disposed of at the following location(s):

and that they have been disposed of according to all applicable laws and regulations.

Dated this _____ DAY OF _____, 2_____.

by _____ Contractor

ATTEST:

State of _____
County of _____

On this _____ DAY OF _____, 2____, before the undersigned, a Notary Public in and for said County and State, duly commissioned and sworn, personally appeared _____
_____ known to me to be the _____ Contractor named in the foregoing Release, and whose name is subscribed thereto, and acknowledged to me that said Contractor executed the said Release.

Notary Public in and for said County and State

SUPPLEMENTARY SPECIAL PROVISIONS (SSP)

THESE SUPPLEMENTARY SPECIAL PROVISIONS CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (THE GREENBOOK) CURRENTLY ADOPTED BY THE CITY, INCLUDING ITS CURRENT SUPPLEMENT AMENDMENTS (CITY SUPPLEMENTS INCLUDED IN THE WHITEBOOK), EXCEPT FOR THE FOLLOWING:

STYLE OF SPECIFICATIONS

The City is gradually standardizing the style and language of the standard specifications for the public works construction. The new style and language follows the Federal guidelines for “Plain Language” to the extent possible.

The use of this new style does not change the meaning of a specification not yet using this style. Where used in the Contract Documents, statement or command type phrases (i.e., active voice and imperative mood) refer to and are directed at the Bidder or Contractor as applicable. The specifications are written to the Bidder before award and the Contractor after. Before award, interpret sentences written in the imperative mood as starting with "The Bidder must" and interpret "you" as "the Bidder" and "your" as "the Bidder's." After award, interpret sentences written in the imperative mood as starting with "The Contractor must" and interpret "you" as "the Contractor" and "your" as "the Contractor's." Similarly, interpret "we" and “us” as "the City" and "our" as "the City's.”

PART 1 – GENERAL PROVISIONS

SECTION 1 – TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

1-2 TERMS AND DEFINITIONS.

Agency – ADD the following:

Regulatory activities handled by the City of San Diego Developmental Services, Fire and Planning Departments, or any other City Department are not subject to the responsibilities of the City under this contract.

Certificate of Compliance – To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Certificate of Compliance – A written document signed and submitted by a supplier or manufacturer that certifies that the material or assembled material supplied to the Work site complies with the requirements of the Contract Documents.

Contract Documents – To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

The Agreement, Addendum, Invitation to Bid, Instructions to Bidders, special notice page, funding agency provisions, Bid and documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award when attached as an exhibit to the Contract, Bonds, permits from jurisdictional regulatory agencies, Supplementary Special Provisions (SSP), City’s EOCP Requirements, City Supplement, Plans, Standard Plans, Construction Documents, Reference

Specifications listed in the Invitation to Bid or the RFP for Design-Build contracts, Request for Qualifications (RFQ), Statement of Qualifications (SOQ), Request for Proposals (RFP), modifications issued after the execution of the Contract e.g., Change Orders, Construction Manager At Risk's Guaranteed Maximum Price including written qualifications, assumptions and conditions thereto and Pre-construction Services Agreement.

Limited Notice To Proceed – A written notice given from the City to the Contractor that authorizes the Contractor to start a limited amount of work that is not Construction Work, such as finalizing subcontract agreements, ordering materials, mobilization, furnishing a field office, and any other preliminary work done prior to performing Construction Work.

Normal Working Hours - To the City Supplement, ADD the following:

The Normal Working Hours shall be 8:30 AM to 3:30 PM.

Notice of Completion (NOC) – ADD the following:

See California Civil Code section 3093.

Samples - Physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be evaluated.

SECTION 2 - SCOPE AND CONTROL OF WORK

2-1.2.2 Joint Venture Contractors. To the City Supplement, last paragraph, DELETE in its entirety and SUBSTITUTE with the following:

The Joint Venture shall designate an on-site representative and an alternate in writing. The on-site representative and the alternate shall have the full authority to bind all Joint Venture partners.

The Joint Venture shall provide a copy of the Joint Venture agreement and the Joint Venture license to the City within 10 Working Days after receipt by the Bidder of Contract forms.

2-3.1.2 Subcontractor List. ADD the following:

For Extra Work, the Contractor shall submit Form CC10, "CONTRACT CHANGE ORDER (CCO)" with each CCO proposal. Form CC10 is available for download from the EOCP site at: <http://www.sandiego.gov/eoc/pdf/cc10.pdf>

2-3.2 Self Performance. DELETE in its entirety and SUBSTITUTE with the following:

The Contractor shall perform, with its own organization, Contract work amounting to at least **50 percent** of the base bid alone or base bid and any additive or deductive alternate(s) that together when added or deducted form the basis of determining the Apparent Low Bidder as specified. The self performance percentage requirement will be waived for contracts when a "B" License is required or allowed.

2-3.3 Status of Subcontractors. ADD the following:

With every request for payment, the Contractor shall submit to the Engineer a breakdown showing monthly and cumulative amounts of the Work performed under Change Order by the Contractor and the Subcontractors. The reporting format shall be approved by the Engineer.

2-3.4 Subcontract Requirements. To the City Supplement, ADD the following paragraph:

The Contractor shall ensure that all of its Subcontractors are licensed at the time of the execution of their subcontract agreements. In the event a Subcontractor is not properly licensed, the Contractor shall cease payment to Subcontractor for all work performed when the Subcontractor was improperly licensed. Any payment made by the Contractor to a Subcontractor for work performed when the Subcontractor was unlicensed shall be returned to the City.

Where the Contract Documents require that a particular product be installed or applied by an applicator approved by the manufacturer, it is the Contractor's responsibility to ensure the Subcontractor or Supplier employed for such work is approved by the manufacturer.

2-5.2 Precedence of Contract Documents. To the Cit Supplement, DELETE in its entirety and SUBSTITUTE with the following:

2-5.2 Precedence of Contract DocumentsError! Bookmark not defined.. If there is a conflict between any of the Contract Documents, the document highest in the order of precedence shall control. The order of precedence, from highest to lowest, shall be as follows:

- 1) Permits (i.e., issued by jurisdictional regulatory agencies)
- 2) Change Orders and Supplemental Agreements; whichever occurs last
- 3) Contract and Agreement
- 4) Addenda
- 5) Bid (e.g., price Proposal for Design-Build contracts)
- 6) Request for Proposal (RFP)
- 7) Invitation to Bid
- 8) Instruction to Bidders
- 9) Request for Qualifications (RFQ)
- 10) Special Provisions (i.e., City's EOCB Requirements, City Supplement, and Supplementary Special Provisions (SSP))
- 11) Plans
- 12) Construction Documents (for Design-Build contracts)
- 13) Standard Drawings

14) Reference Specifications (e.g., GREENBOOK)

15) Technical Proposal (for Design-Build contracts)

16) Statement of Qualifications (SOQ)

When additional requirements by the funding sources are physically or by reference incorporated in the Contract Documents, the funding source's requirements shall govern **unless specified otherwise**.

Figured dimensions shall take precedence over scaled dimensions. Detailed drawings shall take precedence over general drawings.

2-5.3.1 General. DELETE in its entirety and SUBSTITUTE with the following:

When required by the Contract Documents or when requested by the Engineer, the Contractor shall provide the submittals as specified in 2-5.3.2, 2-5.3.3, and 2-5.3.4 to the Engineer. Materials shall neither be furnished nor fabricated, nor shall any work for which submittals are required be performed before the required submittals have been reviewed and accepted by the Engineer. The payment for the submittals shall be included in the various Bid items. Neither review nor acceptance of submittals by the Engineer shall relieve the Contractor from responsibility for errors, omissions, or deviations from the Contract Documents, unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal. The Contractor shall be responsible for the correctness of the submittals.

The Contractor shall allow a minimum of 20 working days for review of submittals unless otherwise specified in the Special Provisions. Each submittal shall be accompanied by a letter of transmittal.

2-5.4.1 General. ADD the following:

Source Identification e.g., RFI numbers and Change Order numbers as required to identify the source of the change to the Contract Documents shall be noted.

2-5.5 As-built Drawings. ADD the following:

As-built Drawings shall be the responsibility of the Contractor.

2-6 WORK TO BE DONE. ADD the following:

In accordance with the provisions of California Law, the Contractor shall possess or require the Subcontractor(s) to possess valid appropriate license(s) for the Work being performed.

2-9.1 Permanent Survey Markers. DELETE in its entirety and SUBSTITUTE with the following:

The Contractor shall notify the Engineer or the owner on a Private Contract, at least 7 days before starting the Work to allow for the preservation of survey markers, survey monuments, lot stakes (tagged), and benchmarks. The Engineer or the owner on a Private Contract, will, at its cost, file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb or permanently cover survey markers, survey monuments, lot stakes (tagged), or benchmarks without the consent of the Engineer or the owner on a Private Contract. The Contractor shall bear the expense of uncovering and replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Registered Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the State of California. When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall adjust the monument cover to the new grade within 7 days of finished paving unless otherwise specified in the Special Provisions.

2-10 AUTHORITY OF BOARD AND ENGINEER. ADD the following:

Regulating agencies of the City, such as Developmental Services, Fire and Planning Departments, enforce Legal Requirements and standards. These enforcement activities are not subject to the responsibilities of the Engineer under this Agreement.

2-11 INSPECTION. ADD the following:

The City may utilize field inspectors to assist the Engineer during construction in observing performance of the Contractor. The inspector is for the purpose of assisting the Engineer and shall not be confused with an inspector with a City regulatory agency or with a Special Inspector.

Code compliance testing (including all Geotechnical requirements) and inspections required by codes or ordinances, or by a plan approval authority, shall be the responsibility of and shall be paid by the Contractor, unless otherwise provided in the Contract Documents.

The Contractor's quality control testing and inspections shall be the sole responsibility of the Contractor and paid by the Contractor included in the Bid price.

ADD: 2-17 CONTRACTOR REGISTRATION. The Contractor, Subcontractors, and Suppliers shall register with the City's EOCP via Prism® i.e., the City's web-based contract compliance portal at: <https://pro.prisecompliance.com/contractor/plugins/pages/contractormenu.aspx>.

The Contractor shall ensure that proposed Subcontractors and Suppliers have completed the registration prior to Notice of Intent to Award. If the Contractor fails to have its Subcontractors and Suppliers registered after the NTP has been issued, the City will withhold a minimum of 10% in addition to the Retention from all invoices submitted until the Contractor and all listed Subcontractors and Suppliers are properly registered in PRISM.

SECTION 3 – CHANGES IN WORK

3-3.2.2 Basis for Establishing Costs (a) Labor, City Supplement, first and second paragraphs, DELETE in entirety and SUBSTITUTE with the following:

The City reserves the right to request financial records of salaries for an employee, wages, bonuses and deductions to substantiate the actual cost of labor certified by a California licensed Certified Public Accountant. The Contractor shall use the City provided form i.e., “PUBLIC WORKS PAYROLL REPORTING FORM” which is available at <http://www.sandiego.gov/eoc/pdf/payrollreport.pdf> to list the labor rates of its personnel and Subcontractors who work on this Project. An initial submittal shall be made prior to NTP.

The payment for payroll records shall be included in the various Bid item unless a separate Bid item has been provided.

SECTION 4 - CONTROL OF MATERIALS

4-1.3.4 Inspection Paid For By the Contractor. To the City Supplement, ADD the following:

The Contractor shall employ and pay for the services of qualified inspection entity to perform specialty inspection services as specified here:

Concrete work and Corrosion Protection

4-1.3.5 Special Inspections. To the City Supplement, ADD the following:

Special Inspection and testing by the Special Inspectors shall meet the minimum requirements of the prevailing Codes and by the City’s Development Services Department (DSD) and reference in <http://www.sandiego.gov/development-services/industry/special.shtml>

4-1.5 Certificates of Compliance. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

4-1.5 Certificates of Compliance. DELETE in its entirety and SUBSTITUTE with the following:

Certificates of Compliance shall be furnished to the Engineer prior to the use of any material or assembled material for which these Specifications so require or if so required by the Engineer.

The Engineer may waive the materials testing requirements of the Specifications and accept a Certificate of Compliance. Manufacturing test data may be required by the Engineer to be included with the submittal.

Materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The submission of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the Work which conforms to the requirements of the Contract Documents, and any material not conforming to the requirements will be subject to rejection whether in place or not.

When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the City shall be entitled to rely upon the accuracy and completeness of such calculations and certifications.

4-1.6 Trade Names or Equals. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Whenever materials or equipment are indicated in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the naming of the item is intended to establish the type, function, and quality required. Unless stated otherwise, materials or equipment of other Suppliers may be accepted if sufficient information is submitted to the Engineer for review to determine whether the material or equipment proposed is equivalent or equal to that named.

- a) The Contractor shall submit its list of proposed substitutions for “an equal” (“or equal”) item(s) **no less than 15 Working Days prior to Bid due date** and on a City form when provided by the City.
 - i. The City will respond to the Contractor’s substitution proposal by at least 3 Working Days prior to the Bid due date. If the City fails to respond to the Contractor’s substitution proposal within the specified time period, the substitution proposal will be deemed denied.
 - ii. The Contractor may bring forward a substitution proposal after Award that was denied based on the City’s failure to respond by submitting a “Cost Reduction Proposal” in accordance with 3-1.3.
- b) The request for substitution shall include the following information:
 - i. Whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents to adopt the design to the proposed substitute.
 - ii. Whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty.
 - iii. All variations of the proposed substitute from the items originally specified will be identified.
 - iv. Available maintenance, repair, and replacement service requirements. The manufacturer shall have a local service agency within 50 miles of the site which maintains properly trained personnel and adequate spare parts and is able to respond and complete repairs within 24 hours.
 - v. Certification that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, and be similar and of equal substance to that indicated, and be suited to the same use as that specified.
- c) There is no guaranteed time frame for the City’s review of the substitution requests.
- d) The burden of proof as to the type, function, and quality of any such substitute product, material or equipment shall be upon the Contractor. The Engineer may require at the Contractor’s expense additional data about the proposed substitute.

- e) If the Engineer takes no exceptions to the proposed substitution, it shall not relieve the Contractor from responsibility for the efficiency, sufficiency, quality, and performance of the substitute material or equipment, in the same manner and degree as the material and equipment specified by name.
- f) The lack of action(s) on the Engineer's side within the Contractor's requested time shall not constitute acceptance of the substitution.
- g) Acceptance by the Engineer of a substitute item shall not relieve the Contractor of the responsibility for full compliance with the Contract Documents.
- h) For the substitution review process or to have materials listed on the AML, refer to the AML standard review process.
- i) The Bid submittal shall be based on the material and equipment specified by name in the Contract. If the proposal is rejected by the Engineer, the Contractor shall not be entitled to either an extension in Contract Time, increase in the Contract Price, or both.
- j) As applicable, no Shop Drawing or Working Drawing submittals shall be made for a substitute item nor shall any substitute item be ordered, installed, or utilized without the Engineer's prior written.
- k) The Contractor shall reimburse the City for the charges of the Engineer for evaluating each proposed substitute.
- l) For Design-Build contracts, one copy of all designer reviewed submittals shall be provided to the Engineer.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-1.2 Commencement of Work. To the GREENBOOK and City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Unless specified otherwise, construction shall start within 5 Working Days after NTP and be diligently prosecuted to completion within the Contract Time. The Contractor shall not start any construction activity at the Site until the Pre-construction Meeting is held and the NTP has been issued by the Engineer.

Upon the Contractor's written request, the City may delay the NTP as follows:

- a) Up to 5 Working Days from the Pre-construction Meeting, or
- b) Up to 40 Working Days from the Limited NTP for the preparation, submittal, obtaining approval for and filing of the PRDs in accordance with 801, "STORM WATER POLLUTION CONTROL," or
- c) Up to 60 Working Days from the Limited NTP for the preparation, submittal, and approval of the TCP on "D-sheets" when specified in 7-10.2, "Traffic Control."

For areas that do not require engineered TCP on D-sheets, the Contractor may at any time after the Pre-construction Meeting obtain a TCP Permit via Working Drawings or the City's over the counter process and start the Work. If the Contractor decides to commence the construction work before the completion of the D-sheet TCPs, the Contractor shall forfeit the 60 Working Days specified here. The D-sheet TCP shall be done concurrently and no additional time will be granted.

For paving Work, the Contractor shall coordinate the Work to facilitate the installation and protection of the new curb ramps and associated concrete work prior to commencing the asphalt overlay operations. The Work at a specific location shall not commence until all layouts and measurements are agreed upon by both the Contractor and the Engineer.

The Contractor shall notify SDG&E at least 10 Working Days prior to excavating within 10' of SDG&E Underground High Voltage Transmission Power Lines (i.e., 69 KV and higher).

For the Design-Build contracts, the Design-Builder shall not begin construction of the Project or any portions thereof until the Engineer approves the design for the Project or portion thereof. No payment shall be made for any construction Work performed prior to the Engineer's approval. Applications for payment for such work shall not be binding on the City.

ADD: 6-1.8 Pre-construction Meeting. Within 20 Working Days from the Limited NTP the Engineer will schedule a mandatory pre-construction meeting (Pre-construction Meeting) with the Contractor. The agenda will include items such as NTP, design services and submittal and review process for Design-Build contracts, critical elements of the work schedule, submittal schedule, cost breakdown of major lump sum items, payment requests and processing, environmental and community concerns, coordination with the involved utility firms, the level of record project documents required and emergency telephone numbers for all representatives involved in the course of construction.

ADD: 6-8.1 Completion. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

6-8.1 Completion. The Contractor shall submit a written assertion that the Work has been completed. If, in the Engineer's judgment, the Work has been completed in accordance with the Contract Documents, the Engineer will set forth in writing the date the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect and maintain the Work.

6-8.2 Acceptance. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

6-8.2 Acceptance. Acceptance will occur after all of the requirements contained in the Contract Documents have been fulfilled. If, in the Engineer's judgment, the Contractor has fully performed the Contract, the Engineer will accept the Contractor's performance of the Contract.

6-8.3 Warranty. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

6-8.3 Warranty. Unless specified otherwise, the Work shall be warranted by the Contractor against defective workmanship and materials for a period of 1 year.

- a) The warranty period shall start on the date of completion of the Work as determined by the Engineer.
- b) The Contractor shall provide an unconditional warranty on all installed fiber optic cable for a minimum period of 2 years.
- c) The warranty period for the following items of the Work shall be 5 years:
 1. Work under Section 500
 2. DWT Construction
 3. LED signal modules
 4. Private sewer pumps including the alarm panel and all other accessories. The Contractor shall provide the City and property owner a copy of the warranty.
- d) The Contractor shall involve the manufacturer in the installation and startup as needed to secure any extended warranty required.
- e) The warranty period for specific items covered under manufacturers' or suppliers' warranties shall commence on the date they are placed into service at the direction of or as approved by the Engineer in writing.
- f) All warranties express or implied, from Subcontractors or Suppliers, of any tier, for the work performed and materials furnished shall be assigned, in writing, to the City, and such warranties shall be delivered to the Engineer prior to acceptance of the Contractor's performance of the Contract.
- g) The Contractor shall replace or repair defective Work in a manner satisfactory to the Engineer, after notice to do so from the Engineer, and within the time specified in the notice. If the Contractor fails to make such replacement or repairs within the time specified in the notice, the City may perform the replacement or repairs at the Contractor's expense. If the Contractor fails to reimburse the City for the actual costs, the Contractor's Surety shall be liable for the cost thereof.
- h) Nothing in this warranty is intended to limit any manufacturer's warranty which provides the City with greater warranty rights than set forth in this section or the Contract Documents.
- i) These specifications are not intended to constitute a period of limitations or waiver of any other rights or remedies City may have regarding the Contractor's other obligations under the Contract Documents or federal or state law.
- j) The Contractor shall respond and initiate corrective action within 24 hours of notice of nonconforming Work that poses an imminent threat to person or property.

ADD: 6-8.4 Latent and Patent Defect Warranty. For Design-Build contracts, the Contractor shall warrant to City that the construction, including all materials and equipment furnished as part of the construction, shall be free of latent and patent defects in materials and workmanship. The City will first provide the Contractor an opportunity to correct or replace any latent and patent defect at its own cost and expense, if notified by the City within 4 years after the date of Acceptance for patent deficiency and 10 years for a latent deficiency. If the Contractor fails to repair and replace the reported deficiency, the City will repair the deficiency and charge the Contractor for the repair.

6-9 LIQUIDATED DAMAGES. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

MODIFY to increase the daily value from \$250 to \$1,000 for contracts with a value of over \$100,000.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-3 LIABILITY INSURANCE. DELETE in its entirety and SUBSTITUTE with the following:

The insurance provisions herein must not be construed to limit your indemnity obligations contained in this contract.

ADD: 7-3.1 Policies and Procedures.

- a) You must procure the insurance described below, at your sole cost and expense, to provide coverage against claims for loss including injuries to persons or damage to property, which may arise out of or in connection with the performance of the Work by you, your agents, representatives, officers, employees or subcontractors.
- b) Insurance coverage for property damage resulting from your operations is on a replacement cost valuation. The market value will not be accepted.
- c) You must maintain this insurance for the duration of this contract and at all times thereafter when you are correcting, removing, or replacing Work in accordance with this contract. Your liabilities under this contract, e.g., your indemnity obligations, will is not deemed limited to the insurance coverage required by this contract.
- d) Payment for insurance is included in the various items of Work as bid by you, and except as specifically agreed to by the City in writing, you are not entitled to any additional payment. Do not begin any work under this contract until you have provided and the City has approved all required insurance.
- e) Policies of insurance must provide that the City is entitled to 30 days (10 days for cancellation due to non-payment of premium) prior written notice of cancellation or non-renewal of the policy. Maintenance of specified insurance coverage is a material element of this contract. Your failure to maintain or renew coverage or to provide evidence of renewal during the term of this contract may be treated by the City as a material breach of contract.

ADD: 7-3.2 Types of Insurance.

7-3.2.1 Commercial General Liability Insurance.

- a) Commercial General Liability Insurance must be written on the current version of the ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad.

- b) The policy must cover liability arising from premises and operations, XCU (explosions, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, bodily injury, property damage, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract).
- c) There must be no endorsement or modification limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. You must maintain the same or equivalent insurance for at least 10 years following completion of the Work.
- d) All costs of defense must be outside the policy limits. Policy coverage must be in liability limits of not less than the following:

<u>General Annual Aggregate Limit</u>	<u>Limits of Liability</u>
Other than Products/Completed Operations	\$2,000,000
Products/Completed Operations Aggregate Limit	\$2,000,000
Personal Injury Limit	\$1,000,000
Each Occurrence	\$1,000,000

7-3.2.2 Commercial Automobile Liability Insurance.

- a) You must provide a policy or policies of Commercial Automobile Liability Insurance written on the current version of the ISO form CA 00 01 12 90 or later version or equivalent form providing coverage at least as broad in the amount of \$1,000,000 combined single limit per accident, covering bodily injury and property damage for owned, non-owned, and hired automobiles ("Any Auto").
- b) All costs of defense must be outside the limits of the policy.

7-3.2.5 Contractors Builders Risk Property Insurance..

- a) You must provide at your expense, and maintain until Final Acceptance of the Work, a Special Form Builders Risk Policy or Policies. This insurance must be in an amount equal to the replacement cost of the completed Work (without deduction for depreciation) including the cost of excavations, grading, and filling. The policy or policies limits must be 100% of this contract value of the Work plus 15% to cover administrative costs, design costs, and the costs of inspections and construction management.
- b) Insured property must include material or portions of the Work located away from the Site but intended for use at the Site, and must cover material or portions of the Work in transit. The policy or policies must include as insured property scaffolding, falsework, and temporary buildings located at the Site. The policy or policies must cover the cost of removing debris, including demolition.
- c) The policy or policies must provide that all proceeds thereunder must be payable to the City as Trustee for the insured, and must name the City, you, Subcontractors, and Suppliers of all tiers as named insured. We as Trustee will collect, adjust, and receive all monies which may become due and payable under the policy or policies, may compromise any and all claims thereunder, and will apply the proceeds of such insurance to the repair, reconstruction, or replacement of the Work.

- d) Any deductible applicable to the insurance must be identified in the policy or policies documents and responsibility for paying the part of any loss not covered because of the application of such deductibles must be apportioned among the parties except for the City as follows: if there is more than one claimant for a single occurrence, then each claimant must pay a pro-rata share of the per occurrence deductible based upon the percentage of their paid claim to the total paid for insured. The City must be entitled to 100% of its loss. You must pay the City any portion of that loss not covered because of a deductible, at the same time the proceeds of the insurance are paid to the City as trustee.
- e) Any insured, other than the City, making claim to which a deductible applies must be responsible for 100% of the loss not insured because of the deductible. Except as provided for under California law, the policy or policies must provide that the City is entitled to 30 days prior written notice (10 days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

ADD: 7-3.3 Rating Requirements. Except for the State Compensation Insurance Fund, all insurance required by this contract as described herein must be carried only by responsible insurance companies with a rating of, or equivalent to, at least “A-, VI” by A.M. Best Company, that are authorized by the California Insurance Commissioner to do business in the State, and that have been approved by the City.

7-3.3.1 Non-Admitted Carriers. The City will accept insurance provided by non-admitted, “surplus lines” carriers only if the carrier is authorized to do business in the State and is included on the List of Eligible Surplus Lines Insurers (LESLI list).

All policies of insurance carried by non-admitted carriers must be subject to all of the requirements for policies of insurance provided by admitted carriers described herein.

ADD: 7-3.4 Evidence of Insurance. Furnish to the City documents e.g., certificates of insurance and endorsements evidencing the insurance required herein, and furnish renewal documentation prior to expiration of this insurance. Each required document must be signed by the insurer or a person authorized by the insurer to bind coverage on its behalf. We reserve the right to require complete, certified copies of all insurance policies required herein.

ADD: 7-3.5 Policy Endorsements.

7-3.5.1 Commercial General Liability Insurance

7-3.5.1.1 Additional Insured.

- a) You must provide at your expense policy endorsement written on the current version of the ISO Occurrence form CG 20 10 11 85 or an equivalent form providing coverage at least as broad.
- b) To the fullest extent allowed by law e.g., California Insurance Code §11580.04, the policy must be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured.
 - 1. The additional insured coverage for projects for which the Engineer’s Estimate is \$1,000,000 or more must include liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) Your products, (c) Your work, e.g., your completed operations performed by you or on your behalf, or (d) premises owned, leased, controlled, or used by you.

2. The additional insured coverage for projects for which the Engineer's Estimate is less than \$1,000,000 must include liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) Your products, or (c) premises owned, leased, controlled, or used by you.

7-3.5.1.2 Primary and Non-Contributory Coverage. The policy must be endorsed to provide that the coverage with respect to operations, including the completed operations, if appropriate, of the Named Insured is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives. Further, it must provide that any insurance maintained by the City and its elected officials, officers, employees, agents and representatives must be in excess of the Contractor's insurance and must not contribute to it.

7-3.5.1.3 Project General Aggregate Limit. The policy or policies must be endorsed to provide a Designated Construction Project General Aggregate Limit that will apply only to the Work. Only claims payments which arise from the Work must reduce the Designated Construction Project General Aggregate Limit. The Designated Construction Project General Aggregate Limit must be in addition to the aggregate limit provided for the products-completed operations hazard.

7-3.5.2 Commercial Automobile Liability Insurance.

7-3.5.2.1 Additional Insured. Unless the policy or policies of Commercial Auto Liability Insurance are written on an ISO form CA 00 01 12 90 or a later version of this form or equivalent form providing coverage at least as broad, the policy must be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured, with respect to liability arising out of automobiles owned, leased, hired or borrowed by you or on your behalf. This endorsement is limited to the obligations permitted by California Insurance Code §11580.04.

7-3.5.5 Builders Risk Endorsements.

7-3.5.5.1 Waiver of Subrogation. The policy or policies must be endorsed to provide that the insurer will waive all rights of subrogation against the City, and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from work performed by the Named Insured for the City.

7-3.5.5.2 Builders Risk – Partial Utilization. If we desire to occupy or use a portion or portions of the Work prior to Acceptance in accordance with this contract, we will notify you and you must immediately notify your Builder's Risk insurer and obtain an endorsement that the policy or policies must not be cancelled or lapse on account of any such partial use or occupancy. You must obtain the endorsement prior to our occupation and use.

ADD: 7-3.6 Deductibles and Self-Insured Retentions. You are responsible for the payment of all deductibles and self-insured retentions. Disclose deductibles and self-insured retentions to the City at the time the evidence of insurance is provided.

ADD: 7-3.7 Reservation of Rights. We reserve the right, from time to time, to review your insurance coverage, limits, deductibles and self-insured retentions to determine if they are acceptable to the City. We will reimburse you, without overhead, profit, or any other markup, for the cost of additional premium for any coverage requested by the Engineer but not required by this contract.

ADD: 7-3.8 Notice of Changes to Insurance. You must notify the City 30 days prior to any material change to the policies of insurance provided under this contract.

ADD: 7-3.9 Excess Insurance. Policies providing excess coverage must follow the form of the primary policy or policies e.g., all endorsements.

7-3.10 Architects and Engineers Professional Insurance (Errors and Omissions Insurance).

- a) For contracts with required engineering services (e.g., Design-Build, preparation of engineered Traffic Control Plans (TCP), etc. by you) for all of your employees or Subcontractors who provide professional engineering services under this contract, you must keep or must require your Subcontractor keep in full force and effect, Professional Liability coverage with a limit of **\$1,000,000** per claim and **\$2,000,000** annual aggregate.
- b) You must ensure both that: (a) the policy retroactive date is on or before the date of commencement of the Project; and (b) the policy will be maintained in force for a period of 3 years after completion of the Project or termination of this contract whichever occurs last. You agree that for the time period specified above, there will be no changes or endorsements to the policy that affect the specified coverage.
- c) If professional engineering services are to be provided solely by the Subcontractor, you must (a) certify this to the City in writing and (b) agree in writing to require the Subcontractor to procure Professional Liability coverage in accordance with the requirements set forth above.

7-4 WORKERS' COMPENSATION INSURANCE. DELETE in its entirety and SUBSTITUTE with the following:

7-4.1 Workers' Compensation Insurance and Employers Liability Insurance.

- a) In accordance with the provisions of §3700 of the California Labor Code, you must provide at its expense Workers' Compensation Insurance and Employers Liability Insurance to protect you against all claims under applicable state workers compensation laws. The City, its elected officials, and employees will not be responsible for any claims in law or equity occasioned by your failure to comply with the requirements of this section.
- b) Limits for this insurance must be not less than the following:

<u>Workers' Compensation</u>	<u>Statutory Employers Liability</u>
Bodily Injury by Accident	\$1,000,000 each accident
Bodily Injury by Disease	\$1,000,000 each employee
Bodily Injury by Disease	\$1,000,000 policy limit

- c) By signing and returning this contract you certify that you are aware of the provisions of §3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code and you will comply with such provisions before commencing the Work as required by § 1861 of the California Labor Code.

7-4.1.1 Waiver of Subrogation. The policy or policies must be endorsed to provide that the insurer will waive all rights of subrogation against the City, and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from work performed by the Named Insured for the City.

7-5.3 Payment. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

For Design-Build contracts, the City Contingency shall be used to reimburse the Design-Builder for the agency permit fee only

7-8.6 Water Pollution Control. ADD the following:

- a) The Project is subject to the Storm Water Pollution control requirements listed on the Plans or as specified in these specifications.
- b) For contracts subject to Construction General Permit (CGP), the Contractor’s QSD shall verify the City’s assessment prior to submittal through SMARTS.
- c) The Contractor’s attention is directed to Section 801, “WATER POLLUTION CONTROL” of these specifications for more information.

Based on a preliminary assessment by the City, this contract is subject to WPCP.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. ADD the following:

In any emergency affecting the safety of persons or property, the Contractor shall act, at its discretion, to prevent threatened damage, injury or loss. Any change in Contract Price or Contract Time resulting from emergency work shall be determined as provided in SECTION 3, “CHANGES IN WORK.”

7-10.1 Traffic and Access. To the City Supplement, DELETE the agency notification listing in its entirety and SUBSTITUTE with the following:

The Contractor shall notify Metropolitan Transit System (MTS), a minimum of 5 Working Days prior to excavation, construction, or traffic control affecting bus stops. The Contractor shall notify the remaining agencies a minimum of two 2 Working Days prior to construction activities affecting the agencies:

Fire Department Dispatch	(Street or alley closure)	(858) 573-1300
Police Department Traffic	(Street or alley closure)	(858) 495-7800
Street Division/Electrical	(Traffic signals)	(619) 527-7500
U.S. Navy	(32nd Street Naval Station)	(619) 556-1319
Underground Service Alert	(Any excavation)	(800) 422-4133
MTS	(Street Closure and Bus Stops)	(619) 238-0100 Ext 6451

7-13.2 Access for Disabled Persons. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

For Design-Build contracts, the Design-Builder shall warrant and certify that all Project Plans and Specifications prepared in accordance with this contract shall meet all current requirements of the California Building Code, California Code of Regulations, Title 24 (Title 24) and the Americans with Disabilities Act (ADA) and the ADA Standards for Accessible Design. When a conflict exists between the ADA Standards for Accessible Design, Title 24 and the WHITEBOOK - City Supplement, the most restrictive requirement shall be followed. As a condition precedent to Award of this contract, the Design-Builder shall submit to City the Design-Builder Certification for Title 24/ADA Compliance.

The Design-Builder shall comply with all portions of the ADA and Title 24. (For specific services and public accommodations, The Design-Builder may contact the Office of the Americans with Disabilities Act, Civil Rights Division, U.S. Department of Justice, P.O. Box 66118, Washington, D.C. 20035-6118; phone number (202) 514-0301.) The Design-Builder acknowledges and agrees that the Design-Builder is aware of and will comply with Council Policy 100-04, incorporated herein by this reference, adopted by Resolution No. R-282153, relating to the federally-mandated ADA. The Design-Builder and contractors will be individually responsible for administering their own ADA and Title 24 program.

Code Implementation:

- a) The 2010 Americans with Disabilities Act (ADA) regulations will take effect on April 15, 2011.
- b) The 2010 ADA Standards for Accessible Design will take effect on April 15, 2012. Designers may choose either the 1991 ADAAG or the 2010 ADA Standards if the project is to be designed before the adoption date but all new construction and alteration projects must comply with the 2010 ADA Standards if construction is to start on or after April 15, 2012.
- c) The 2010 California Building Code, California Code of Regulations, Title 24 will take effect on January 1, 2011.

The Design-Builder shall pay all claims, costs, losses and damages incurred by the City in undertaking remedial action to correct City determined violations of ADA or Title 24. To effectuate remedial action, the City will issue a Change Order incorporating the necessary revisions in the Construction Documents. The City will be entitled to an appropriate decrease in the Contract Price, and, if the Parties are unable to agree as to the amount thereof, The City may unilaterally issue the Change Order.

ADD: 7-15 INDEMNIFICATION AND HOLD HARMLESS AGREEMENT. The Contractor shall defend, indemnify, protect, and hold harmless the City, its agents, officers, and employees, from and against all claims asserted, or liability established for damages or injuries to any person or property resulting from the Contractor's action or failure to take the necessary measures to prevent such damages and injuries.

The Contractor shall be responsible for payment of any fines resulting from citations issued to the City by either the federal, state, or local environmental and safety enforcement agencies due to the Contractor's failure to abide by applicable safety, health, and environmental standards.

ADD: 7-16.2.2 Weekly Updates Recipients. The following recipients shall receive a weekly correspondence with updates, traffic control issues and locations, lane closures, and any other pertinent information (with additional contact names given during award process).

Mike Bajoua, Project Manager, MBajoua@san Diego.gov

Francisco Bordon, Project Engineer, FBordon@san Diego.gov

Resident Engineer, TBA, XXX@san Diego.gov

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-2 FIELD OFFICE FACILITIES. To the City Supplement, DELETE in its entirety.

PART 2 - CONSTRUCTION MATERIALS

SECTION 207 – PIPE

ADD: 207-17.2.3 Pipe Manufacturer. Pipe, fittings, couplings, and joints as manufactured or distributed by J-M Manufacturing Company shall not be used on this contract.

- a) finish

PART 3 – CONSTRUCTION METHODS

SECTION 306 – UNDERGROUND CONDUIT CONSTRUCTION

306-1.2.14 Thrust Blocks and Anchor Blocks. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

At least 10 Working Days prior to construction of thrust blocks and anchor blocks for 16” and larger water mains, the Contractor shall excavate via potholing and expose the soil to the depth of the proposed water main at locations approved by the Engineer. The Engineer will confirm the design when shown on the Plans or will provide the design details within 10 Working Days after the Engineer has observed the exposed Site.

If there are conflicts with adjacent utilities that prohibit the installation of the concrete blocks, the Contractor shall immediately notify the Engineer.

ADD: PART 8 – ENVIRONMENTAL WORKS

SECTION 801 – WATER POLLUTION CONTROL

801-9.3 BMP Requirements. To the City Supplement, ADD the following:

- c) WTAP shall be required when the Project exceeds the Maximum Disturbed Area Requirements unless the grading Work is performed in phases that do not exceed the limit shown on the Plans per phase.

SECTION 803 – ENCOUNTERING OR RELEASING HAZARDOUS SUBSTANCES

803-1 GENERAL. ADD the following:

A health and safety plan for this project has been prepared as set forth in Contract Appendix.

803-3 DEFINITIONS. ADD the following:

Treated Wood - Wood that is typically treated with preserving chemicals, as noted in 204-2.2, “Wood Preservatives” that protect the wood from insect attack and fungal decay during its use. Examples include fence posts, landscape timbers, pilings, railroad ties and utility poles.

803-16 PAYMENT. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Payment for waste management shall be included in the applicable Bid items as follows:

- a) Preparation of Hazardous Waste Management Plan and Reporting (LS)
- b) Monitoring, Testing, Sampling, Site Storage, and Handling of Soils Containing RCRA Hazardous Waste (TONS)
- c) Loading, Transportation, and Disposal of soils containing RCRA Hazardous Waste (TONS)
- d) Monitoring, Testing, Sampling, Site Storage and Handling of Petroleum Contaminated Soil (TONS)
- e) Loading, Transportation, and Disposal of Petroleum Contaminated Soil (TONS)
- f) Monitoring, Testing, Sampling Site Storage and Handling of Soils Containing Non-RCRA Hazardous Waste (TONS)
- g) Loading, Transportation, and Disposal of Soils Containing Non-RCRA Hazardous Waste (TONS)
- h) Testing, Sampling, Site Storage, Handling, Transportation, and Disposal of Containerized RCRA Hazardous Waste (55 Gal DRUMS)
- i) Testing, Sampling, Site Storage, Handling, Transportation, and Disposal of Containerized Non-RCRA Hazardous Waste (55 Gal DRUMS)
- j) Testing, Sampling, Site Storage, Handling, Transportation and Recycling/Disposal of Universal Waste (EACH)
- k) Testing, Sampling, Site Storage, Handling, Transportation and Recycling/Disposal of Regulated Waste (TONS)
- l) Testing, Sampling, Site Storage, Handling, Transportation, and Disposal of RCRA Hazardous Waste Contaminated Ground Water (GAL)
- m) Testing, Sampling, Site Storage, Handling, Transportation, and Disposal of Non-RCRA Hazardous Waste Contaminated Ground Water (GAL)

Shorter testing time and availability of preliminary results may be required by the Engineer and paid as Extra Work.

ADD: 803-17 TREATED WOOD WASTE (TWW) MANAGEMENT AND DISPOSAL.

- a) TWW is regulated under California Code Regulations Title 22, division 4.5, chapter 34 and Department of Toxic Substances Control (DTSC).
- b) TWW contains hazardous chemicals and shall be managed as hazardous waste or as specified on DTSC's website: http://www.dtsc.ca.gov/hazardouswaste/treated_wood_waste.cfm.
- c) The generation of TWW during construction projects shall be handled as described in DTSC's "Requirements for Generators of Treated Wood Waste Fact Sheet" under the section noted "Businesses generating TWW during the normal course of business."
- d) TWW shall be disposed of at an authorized composite lined solid waste facility or through a licensed hazardous waste facility.

803-17.1 Payment. Payment for the management and disposal of TWW will be made as Extra Work unless a separate lump sum Bid item has been provided.

SECTION 804 – SEWAGE SPILL PREVENTION

To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

804-1 GENERAL.

The Contractor shall observe and comply with the City's policy of zero spills. **The Contractor shall be liable for all damages and fines associated with sewage spills caused by improper support or damage to the existing sewer facilities.**

The Contractor shall designate a person responsible for the development and enforcement of the Sewage Spill Response Plan, and for ensuring sewer spills are minimized to the maximum extent possible. The Contractor shall provide a status of all bypass related work at biweekly progress meetings as requested by the City.

804-2 SEWAGE SPILL PREVENTION AND RESPONSE PLAN. Prior to the start of construction, the Contractor shall develop and submit to the Engineer, for review and approval, a written Sewage Spill Prevention and Response Plan. The plan shall include sewage spill response plan, spill containment and cleanup plan, staging area, and sewage bypass and pumping plan.

The Sewage Spill Prevention and Response Plan shall be developed to respond to any construction related sewage spill(s). The plan shall include:

- a) Identifying all nearby environmentally-sensitive areas such as waterways, channels, catch basins and entrances to existing underground storm drains.
- b) Making arrangements for an emergency response unit, stationed at or near the Site, comprised of emergency response equipment and trained personnel to be immediately dispatched in the event of a sewage spill(s). This includes field biologists, archaeologists, or both if in an environmentally-sensitive area such as a canyon.

- c) Developing an emergency notification procedure that includes an emergency response team with telephone numbers and arrangements for backup personnel and equipment. The emergency response unit shall be able to dispatch to the Site 24 hours a day 7 days a week including weekends and holidays. The Contractor shall designate primary and secondary representatives, their respective phone numbers, pager numbers, and mobile phone numbers. These Contractor's representatives shall be accessible and available at all times to respond immediately to any sewer spill event.
- d) Identifying any property owners who may be affected e.g., the City Park and Recreation Department.

At the pre-construction meeting the Contractor will be provided with a list of the City representatives to contact in case of sewage spill(s). In case of a sewage spill(s), the Contractor shall immediately call the Sewage Spill Hotline number at (619) 527-5481 and shall act immediately without instructions from the City, to control the spill and take all appropriate steps to contain it in accordance with the Sewage Spill Prevention and Response Plan and 804-2.1, "Sewage Bypass and Pumping Plan." The Contractor shall immediately notify the City representatives of the spill and shall report Project name, location, Contractor name, Project Engineer, and Engineer names.

The Contractor shall, within 3 Working Days from the occurrence of the spill, submit to the Engineer a written report describing the following information related to the spill: the location; the nature and estimated volume; the date and time; the duration; the cause; the type of remedial and/or clean up measures taken (including erosion control measures) and the date and time of implementation; the corrective and/or preventive actions taken to avoid further spills; equipment used in spill response; and the environmentally-sensitive habitat such as a water body, if any, impacted and results of any necessary monitoring. The Contractor shall provide a list of who from the City was notified, date and time of notification, date and time the Contractor was notified of the spill, date and time the Contractor arrived on Site.

The Engineer may institute further corrective actions, as deemed necessary, to fully comply with existing laws, ordinances, codes, order or other pertinent regulations. In addition to any penalties provided by federal, state, and local laws, the Contractor shall be responsible for all costs incurred for the corrective actions including mitigation measures (habitat restoration, etc.) and obtaining after-the-fact permits if necessary, in environmentally sensitive areas. These permits include but are not limited to those from the City Planning Department Development Services, California Coastal Commission, U.S. Army Corps of Engineers and the California Department of Fish and Game.

It shall be the Contractor's responsibility to assure that all field forces, including Subcontractors, know and obey all safety and emergency procedures, including the Sewage Spill Prevention and Response Plan applicable to the work, to be maintained and followed at the Site. If in an environmentally sensitive area, such as canyon, stream, or lagoon, impacts shall be minimized. Crews shall be aware at the start of the job of any sensitive environmental habitats, breeding season restrictions, etc.

The Contractor shall prevent spills when working on sewer lines, such as when making temporary connection, when connecting new lines into the sewer system, ensuring no laterals are connected to mains being abandoned, ensuring diversions are appropriately installed, and diversions are completely removed when finished so there are no blockages. The Contractor shall not trap debris and discharge rock or debris downstream. Avoidance of streams is paramount unless authorized via permits.

The Contractor shall defend, indemnify, protect, and hold harmless the City, its agents, officers, and employees, from and against all claims asserted, or liability established for damages or injuries to any person or property resulting from any sewage spill caused or claimed to be caused by the Contractor's action or failure to take measures to prevent a spill. **The Contractor shall be responsible for payment of any fines assessed against the City for such sewage spills.** The Contractor's duty to indemnify and hold harmless shall not include any claims or liability arising from the established active or sole negligence or willful misconduct of the City, its agents, officers or employees.

The Contractor shall obtain and maintain an additional insurance coverage for Pollution Liability with its limits and requirements as set forth in 7-3.5.3, "Contractors Pollution Liability Insurance Endorsements." The limits and requirements for Pollution Liability shall be in an amount sufficient to cover potential losses from sudden and accidental pollution. Unless otherwise provided for in the Bid Proposal, all costs associated with the requirements for Sewage Spill Prevention and Response Plan, including additional insurance, shall be included in the prices for other related Bid items.

804-2.1 Sewage Bypass and Pumping Plan. The Contractor shall submit to the Engineer for approval, a Sewage Bypass and Pumping Plan at least 15 Working Days prior to implementation of flow diversion in compliance with the City's policy of "ZERO SPILLS." The Sewage Bypass and Pumping Plan shall indicate the sequence of diversion operations, all other operations the Contractor will establish to maintain wastewater service during the construction period, and a quality assurance and quality control plan for the diversion Work. The Sewage Bypass and Pumping Plan shall include an emergency response plan indicating the procedures, equipment, and activities that will be implemented in the event of an emergency shutdown or failure of the flow diversion equipment used for construction. The Contractor shall be responsible for implementation of the emergency plan in accordance with 804-2 "Sewage Spill Prevention and Response Plan".

The Contractor's Sewage Bypass and Pumping Plan shall be reviewed and approved by the Wastewater Collection Division of the City before flow can be diverted. No deviation from the approved Sewage Bypass and Pumping Plan will be allowed without prior approval from the Engineer.

The Contractor shall observe and comply with all Federal, State, and local laws, ordinances, codes, orders, and regulations which in any manner affect the conduct of the work, specifically as it relates to sewage spills. The Contractor shall be fully responsible for preventing sewage spill(s), containing any sewage spill(s), recovery and legal disposal of any spilled sewage, any fines, penalties, claims and liability arising from negligently causing a sewage spill(s), and any violation of any law, ordinance, code, order, or regulation as a result of the spill(s).

The Contractor shall exercise care not to damage existing public and private improvements, interrupt existing services or facility operations which may cause a sewage spill(s). Any reasonably anticipated utility or improvement which is damaged by the Contractor shall be immediately repaired at the expense of the Contractor. In the event that the Contractor damages an existing utility or interrupts an existing service, which causes a sewage spill(s), the Contractor shall immediately call the emergency number at (619) 515-3525.

The Contractor shall exercise care not to damage any sensitive habitats or historic resources unless authorized via the discretionary permit and Mitigation, Monitoring and Reporting Program approved by the City.

The Contractor shall provide all facilities, labor, power, and appurtenances necessary to divert wastewater flows as necessary to allow proper installation of the pipeline and/or manhole linings.

The Contractor shall submit as part of their Sewage Bypass and Pumping Plan their monitoring procedure and frequency and shall continuously monitor the flow levels downstream and upstream of the flow diversion to detect any possible failure that may cause a sewage backup and spill(s). The Contractor shall maintain a log of the monitoring and provide daily copies to the Engineer in a manner acceptable to the Engineer.

The Contractor shall inspect and maintain the diversion system daily, including the back-up system. The Contractor shall submit with their Sewage Bypass and Pumping Plan their maintenance procedures and frequency. The Contractor shall maintain a log of all inspection, maintenance and repair records, and provide copies to the Engineer upon request in a manner acceptable to the Engineer.

The Contractor shall size the flow diversion system to handle the peak flow and shall include a 100% backup in the flow diversion system. The Contractor shall provide temporary means to maintain and handle the sewage flow in the existing system as required to complete the necessary construction. The Contractor shall utilize the flow diversion system to mitigate any additional wet weather flows, perform the necessary maintenance and repairs on the flow diversion system, and exercise and ensure the operation of the backup system. Each pump, including the backup pumps, shall be a complete unit with its own suction and discharge piping. The Contractor shall operate the backup flow diversion system for a minimum of 25% of the total diversion time on a weekly basis. The backup flow diversion system shall be fully installed, operational, and ready for immediate use. The diversion system shall be hydraulically tested with clean water prior to wastewater flow diversion. The Contractor shall demonstrate to the satisfaction of the Engineer that both the primary and backup flow diversion systems are fully functional and adequate, and shall certify the same, in writing, to the Engineer in a manner acceptable to the Engineer.

The Contractor shall provide one dedicated fuel tank for every single pump or generator, if fuel or generator driven pumps are used. The Contractor shall provide an emergency standby power generator, if electric power driven pumps are used. The Contractor shall provide a fuel level indicator outside each fuel tank. The Contractor shall continuously (while in use) monitor the fuel level in the tanks and ensure that the fuel level does not drop below a level equivalent of two hours of continuous flow diversion system operation. The Contractor shall take the necessary measures to ensure the fuel supply is protected against contamination. This includes but is not limited to fuel line water traps, fuel line filters, and protecting fuel stores from precipitation. The Contractor shall monitor all hoses and repair leaks immediately.

804-2.2 Payment Unless a Bid item has been provided, full compensation for the Sewage Bypass and Pumping Plan, its implementation e.g., labor, facilities, equipments, power, appurtenances and incidental, shall be included in the payment for sewer main.

SECTION 805 – WATER DISCHARGES

805-2.7 Payment. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Payment for dewatering will be made as follows:

- a) The Allowance Bid item for Permit and Discharge Fees shall cover the payment for monthly discharge fees as invoiced by Public Utilities Department and associated expenses e.g. water samples and lab testing to obtain the required permit from the City's Public Utilities Department for such discharges.
- b) The Lump Sum payment for "Treatment System for Hazardous Contaminated Water" shall include Equipment and Set up for contaminated water containing hazardous substances. It Payment shall include Dewatering Plan, installing and operating proper equipment to treat the hazardous contaminated water not treatable by the dewatering system to bring the discharged water to the level that is in compliance with the permitting agencies' requirements and water quality standards. Payment shall include but not limited to piping, wells, pumps, electrical system, and maintenance, water holding tank, water meters, chemicals, filters and other operating expenses.
- c) The Lump Sum payment for "Dewatering System" shall include Equipment and Set up for dewatering and cleaning groundwater containing non-hazardous substances e.g. sand and silt. This includes Dewatering Plan, installing and operating proper equipment to treat and bring the discharged water to the level that is in compliance with the permitting agencies' requirements and water quality standards. This payment shall include but not limited to piping, wells, pumps, electrical system, maintenance, water holding tank, water meters, operating expenses, 24 hour monitoring of the system to prevent the impacts of pump failure, vandalism, etc.
- d) For the payment for "Handling and Disposal of the Hazardous Contamination", see 803-16, "Payment."
- e) The payment for preparing "Community Health and Safety Plan" shall be included in the various Bid items unless a Bid Item has been provided.

SECTION 807 – RESOURCE DISCOVERIES

ADD: 807-1.1 Environmental Document. The City of San Diego Environmental Analysis Section (EAS) of the Development Services Department has prepared an Addendum to a Mitigated Negative Declaration (MND) for the Otay Water Treatment Plant Upgrades (Phase 3), DEP No. 40-0932, as referenced in Appendix C of Attachment A. The Contractor shall comply with all requirements of the MND as set forth in Appendix C of Attachment A.

END OF SUPPLEMENTARY SPECIAL PROVISIONS (SSP)

APPENDIX A
FIRE HYDRANT METER PROGRAM

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 1 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

1. **PURPOSE**

- 1.1 To establish a Departmental policy and procedure for issuance, proper usage and charges for fire hydrant meters.

2. **AUTHORITY**

- 2.1 All authorities and references shall be current versions and revisions.
- 2.2 San Diego Municipal Code (NC) Chapter VI, Article 7, Sections 67.14 and 67.15
- 2.3 Code of Federal Regulations, Safe Drinking Water Act of 1986
- 2.4 California Code of Regulations, Titles 17 and 22
- 2.5 California State Penal Code, Section 498B.0
- 2.6 State of California Water Code, Section 110, 500-6, and 520-23
- 2.7 Water Department Director

Reference

- 2.8 State of California Guidance Manual for Cross Connection Programs
- 2.9 American Water Works Association Manual M-14, Recommended Practice for Backflow Prevention
- 2.10 American Water Works Association Standards for Water Meters
- 2.11 U.S.C. Foundation for Cross Connection Control and Hydraulic Research Manual

3. **DEFINITIONS**

- 3.1 **Fire Hydrant Meter:** A portable water meter which is connected to a fire hydrant for the purpose of temporary use. (These meters are sometimes referred to as Construction Meters.)

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 2 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

- 3.2 **Temporary Water Use:** Water provided to the customer for no longer than twelve (12) months.
- 3.3 **Backflow Preventor:** A Reduced Pressure Principal Assembly connected to the outlet side of a Fire Hydrant Meter.

4. **POLICY**

- 4.1 The Water Department shall collect a deposit from every customer requiring a fire hydrant meter and appurtenances prior to providing the meter and appurtenances (see Section 7.1 regarding the Fees and Deposit Schedule). The deposit is refundable upon the termination of use and return of equipment and appurtenances in good working condition.
- 4.2 Fire hydrant meters will have a 2 ½" swivel connection between the meter and fire hydrant. The meter shall not be connected to the 4" port on the hydrant. All Fire Hydrant Meters issued shall have a Reduced Pressure Principle Assembly (RP) as part of the installation. Spanner wrenches are the only tool allowed to turn on water at the fire hydrant.
- 4.3 The use of private hydrant meters on City hydrants is prohibited, with exceptions as noted below. All private fire hydrant meters are to be phased out of the City of San Diego. All customers who wish to continue to use their own fire hydrant meters must adhere to the following conditions:
 - a. Meters shall meet all City specifications and American Water Works Association (AWWA) standards.
 - b. Customers currently using private fire hydrant meters in the City of San Diego water system will be allowed to continue using the meter under the following conditions:
 - 1. The customer must submit a current certificate of accuracy and calibration results for private meters and private backflows annually to the City of San Diego, Water Department, Meter Shop.

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 3 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

2. The meter must be properly identifiable with a clearly labeled serial number on the body of the fire hydrant meter. The serial number shall be plainly stamped on the register lid and the main casing. Serial numbers shall be visible from the top of the meter casing and the numbers shall be stamped on the top of the inlet casing flange.
3. All meters shall be locked to the fire hydrant by the Water Department, Meter Section (see Section 4.7).
4. All meters shall be read by the Water Department, Meter Section (see Section 4.7).
5. All meters shall be relocated by the Water Department, Meter Section (see Section 4.7).
6. These meters shall be tested on the anniversary of the original test date and proof of testing will be submitted to the Water Department, Meter Shop, on a yearly basis. If not tested, the meter will not be allowed for use in the City of San Diego.
7. All private fire hydrant meters shall have backflow devices attached when installed.
8. The customer must maintain and repair their own private meters and private backflows.
9. The customer must provide current test and calibration results to the Water Department, Meter Shop after any repairs.
10. When private meters are damaged beyond repair, these private meters will be replaced by City owned fire hydrant meters.

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 4 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

11. When a private meter malfunctions, the customer will be notified and the meter will be removed by the City and returned to the customer for repairs. Testing and calibration results shall be given to the City prior to any re-installation.
12. The register shall be hermetically sealed straight reading and shall be readable from the inlet side. Registration shall be in hundred cubic feet.
13. The outlet shall have a 2 ½ "National Standards Tested (NST) fire hydrant male coupling.
14. Private fire hydrant meters shall not be transferable from one contracting company to another (i.e. if a company goes out of business or is bought out by another company).

4.4 All fire hydrant meters and appurtenances shall be installed, relocated and removed by the City of San Diego, Water Department. All City owned fire hydrant meters and appurtenances shall be maintained by the City of San Diego, Water Department, Meter Services.

4.5 If any fire hydrant meter is used in violation of this Department Instruction, the violation will be reported to the Code Compliance Section for investigation and appropriate action. Any customer using a fire hydrant meter in violation of the requirements set forth above is subject to fines or penalties pursuant to the Municipal Code, Section 67.15 and Section 67.37.

4.6 **Conditions and Processes for Issuance of a Fire Hydrant Meter**

Process for Issuance

- a. Fire hydrant meters shall only be used for the following purposes:
 1. Temporary irrigation purposes not to exceed one year.

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 5 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

2. Construction and maintenance related activities (see Tab 2).
 - b. No customer inside or outside the boundaries of the City of San Diego Water Department shall resell any portion of the water delivered through a fire hydrant by the City of San Diego Water Department.
 - c. The City of San Diego allows for the issuance of a temporary fire hydrant meter for a period not to exceed 12 months (365 days). An extension can only be granted in writing from the Water Department Director for up to 90 additional days. A written request for an extension by the consumer must be submitted at least 30 days prior to the 12 month period ending. No extension shall be granted to any customer with a delinquent account with the Water Department. No further extensions shall be granted.
 - d. Any customer requesting the issuance of a fire hydrant meter shall file an application with the Meter Section. The customer must complete a "Fire Hydrant Meter Application" (Tab 1) which includes the name of the company, the party responsible for payment, Social Security number and/or California ID, requested location of the meter (a detailed map signifying an exact location), local contact person, local phone number, a contractor's license (or a business license), description of specific water use, duration of use at the site and full name and address of the person responsible for payment.
 - e. At the time of the application the customer will pay their fees according to the schedule set forth in the Rate Book of Fees and Charges, located in the City Clerk's Office. All fees must be paid by check, money order or cashiers check, made payable to the City Treasurer. Cash will not be accepted.
 - f. No fire hydrant meters shall be furnished or relocated for any customer with a delinquent account with the Water Department.
 - g. After the fees have been paid and an account has been created, the

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 6 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

meter shall be installed within 48 hours (by the second business day). For an additional fee, at overtime rates, meters can be installed within 24 hours (within one business day).

4.7 Relocation of Existing Fire Hydrant Meters

- a. The customer shall call the Fire Hydrant Meter Hotline (herein referred to as "Hotline"), a minimum of 24 hours in advance, to request the relocation of a meter. A fee will be charged to the existing account, which must be current before a work order is generated for the meter's relocation.
- b. The customer will supply in writing the address where the meter is to be relocated (map page, cross street, etc). The customer must update the original Fire Hydrant Meter Application with any changes as it applies to the new location.
- c. Fire hydrant meters shall be read on a monthly basis. While fire hydrant meters and backflow devices are in service, commodity, base fee and damage charges, if applicable, will be billed to the customer on a monthly basis. If the account becomes delinquent, the meter will be removed.

4.8 Disconnection of Fire Hydrant Meter

- a. After ten (10) months a "Notice of Discontinuation of Service" (Tab 3) will be issued to the site and the address of record to notify the customer of the date of discontinuance of service. An extension can only be granted in writing from the Water Department Director for up to 90 additional days (as stated in Section 4.6C) and a copy of the extension shall be forwarded to the Meter Shop Supervisor. If an extension has not been approved, the meter will be removed after twelve (12) months of use.
- b. Upon completion of the project the customer will notify the Meter Services office via the Hotline to request the removal of the fire hydrant meter and appurtenances. A work order will be generated

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 7 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

for removal of the meter.

- c. Meter Section staff will remove the meter and backflow prevention assembly and return it to the Meter Shop. Once returned to the Meter Shop the meter and backflow will be tested for accuracy and functionality.
- d. Meter Section Staff will contact and notify Customer Services of the final read and any charges resulting from damages to the meter and backflow or its appurtenance. These charges will be added on the customer's final bill and will be sent to the address of record. Any customer who has an outstanding balance will not receive additional meters.
- e. Outstanding balances due may be deducted from deposits and any balances refunded to the customer. Any outstanding balances will be turned over to the City Treasurer for collection. Outstanding balances may also be transferred to any other existing accounts.

5. **EXCEPTIONS**

- 5.1 Any request for exceptions to this policy shall be presented, in writing, to the Customer Support Deputy Director, or his/her designee for consideration.

6. **MOBILE METER**

- 6.1 Mobile meters will be allowed on a case by case basis. All mobile meters will be protected by an approved backflow assembly and the minimum requirement will be a Reduced Pressure Principal Assembly. The two types of Mobile Meters are vehicle mounted and floating meters. Each style of meters has separate guidelines that shall be followed for the customer to retain service and are described below:

- a) **Vehicle Mounted Meters:** Customer applies for and receives a City owned Fire Hydrant Meter from the Meter Shop. The customer mounts the meter on the vehicle and brings it to the Meter Shop for

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 8 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

inspection. After installation is approved by the Meter Shop the vehicle and meter shall be brought to the Meter Shop on a monthly basis for meter reading and on a quarterly basis for testing of the backflow assembly. Meters mounted at the owner's expense shall have the one year contract expiration waived and shall have meter or backflow changed if either fails.

- b) **Floating Meters:** Floating Meters are meters that are not mounted to a vehicle. **(Note: All floating meters shall have an approved backflow assembly attached.)** The customer shall submit an application and a letter explaining the need for a floating meter to the Meter Shop. The Fire Hydrant Meter Administrator, after a thorough review of the needs of the customer, (i.e. number of jobsites per day, City contract work, lack of mounting area on work vehicle, etc.), may issue a floating meter. At the time of issue, it will be necessary for the customer to complete and sign the "Floating Fire Hydrant Meter Agreement" which states the following:

- 1) The meter will be brought to the Meter Shop at 2797 Caminito Chollas, San Diego on the third week of each month for the monthly read by Meter Shop personnel.
- 2) Every other month the meter will be read and the backflow will be tested. This date will be determined by the start date of the agreement.

If any of the conditions stated above are not met the Meter Shop has the right to cancel the contract for floating meter use and close the account associated with the meter. The Meter Shop will also exercise the right to refuse the issuance of another floating meter to the company in question.

Any Fire Hydrant Meter using reclaimed water shall not be allowed use again with any potable water supply. The customer shall incur the cost of replacing the meter and backflow device in this instance.

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 9 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

7. FEE AND DEPOSIT SCHEDULES

7.1 **Fees and Deposit Schedules:** The fees and deposits, as listed in the Rate Book of Fees and Charges, on file with the Office of the City Clerk, are based on actual reimbursement of costs of services performed, equipment and materials. These deposits and fees will be amended, as needed, based on actual costs. Deposits, will be refunded at the end of the use of the fire hydrant meter, upon return of equipment in good working condition and all outstanding balances on account are paid. Deposits can also be used to cover outstanding balances.

All fees for equipment, installation, testing, relocation and other costs related to this program are subject to change without prior notification. The Mayor and Council will be notified of any future changes.

8. UNAUTHORIZED USE OF WATER FROM A HYDRANT

8.1 Use of water from any fire hydrant without a properly issued and installed fire hydrant meter is theft of City property. Customers who use water for unauthorized purposes or without a City of San Diego issued meter will be prosecuted.

8.2 If any unauthorized connection, disconnection or relocation of a fire hydrant meter, or other connection device is made by anyone other than authorized Water Department personnel, the person making the connection will be prosecuted for a violation of San Diego Municipal Code, Section 67.15. In the case of a second offense, the customer's fire hydrant meter shall be confiscated and/or the deposit will be forfeited.

8.3 Unauthorized water use shall be billed to the responsible party. Water use charges shall be based on meter readings, or estimates when meter readings are not available.

8.4 In case of unauthorized water use, the customer shall be billed for all applicable charges as if proper authorization for the water use had been obtained, including but not limited to bi-monthly service charges, installation charges and removal charges.

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 10 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

- 8.5 If damage occurs to Water Department property (i.e. fire hydrant meter, backflow, various appurtenances), the cost of repairs or replacements will be charged to the customer of record (applicant).

Water Department Director

- Tabs: 1. Fire Hydrant Meter Application
2. Construction & Maintenance Related Activities With No Return To Sewer
3. Notice of Discontinuation of Service

APPENDIX

Administering Division: Customer Support Division

Subject Index: Construction Meters
Fire Hydrant
Fire Hydrant Meter Program
Meters, Floating or Vehicle Mounted
Mobile Meter
Program, Fire Hydrant Meter

Distribution: DI Manual Holders



Application For Fire Hydrant Meter

(EXHIBIT A)

For Office Use Only

Department: METER SHOP 619 527 7449
2797 Caminito Chollas • San Diego, California 92105-5097 • FAX 619 527 3125

NS Rec:	Fac #:
Date:	By:

Application Date:	Requested Install Date:
-------------------	-------------------------

Fire Hydrant Location: (Attach detailed map, Thomas Bros. map location or construction drawing.)

Specific Use of Water:

Any return to Sewer or Storm Drain, if so, explain:

Estimated Duration of Meter Use: Check Box if Reclaimed Water

Company Information

Company Name:

Mailing Address:

City: State: Zip Code: Phone: ()

*Business License #: *Contractor License #:

*A copy of the Contractor's License and/or Business License is required at the time of meter issuance.

Name and Title of Agent: Phone: ()

Site Contact Name and Title: Phone: ()

Pager #: Cell: ()

Responsible Party Name: Title:

Social Security or Cal ID #: Phone: ()

Signature: Date:

Guarantees payment of all charges resulting from the use of this meter. Insures that employees of this organization understand the proper use of Fire Hydrant Meter.

Fire Hydrant Meter Removal Request

Check Box to Request Removal of Above Meter Requested Removal Date:

Provide current Meter location if different from above:

Signature: Title: Date:

Phone: () Pager: ()

For Office Use Only

<input type="checkbox"/> City Meter	<input type="checkbox"/> Private Meter		
CIS Account #:	Deposit Amount: \$	Fees Amount: \$	
Meter Serial #:	Meter Size:	Meter Make & Style:	
Backflow #:	Backflow Size:	Meter Make & Style:	
Name:	Signature:	Date:	

\$1,108.45 - FOR 24 HR INSTALLATION
 \$1,052.26 - FOR 48 HR INSTALLATION

FHM App Created: 11/2/00-htp

"Exhibit B"

CONSTRUCTION AND MAINTENANCE RELATED ACTIVITIES WITH NO RETURN TO SEWER:

**Auto Detailing
Backfilling
Combination Cleaners (Vactors)
Compaction
Concrete Cutters
Construction Trailers
Cross Connection Testing
Dust Control
Flushing Water Mains
Hydro blasting
Hydro Seeding
Irrigation (for establishing irrigation only; not continuing irrigation)
Mixing Concrete
Mobile Car Washing
Special Events
Street Sweeping
Water Tanks
Water Trucks
Window Washing**

Note: If there is any return to sewer or storm drain, then sewer and/or storm drain fees will be charged.

"Exhibit C"

Date

Name of Responsible Party

Company Name and address

Account Number: _____

Subject: Discontinuation of Fire Hydrant Meter Service

Dear Water Department Customer:

The authorization for use of Fire Hydrant Meter # _____ located at (Meter location address) ends in 60 days and will be removed on or after (Date authorization expires). Extension requests for an additional 90 days must be submitted in writing for consideration 30 days prior to the discontinuation date. If you require an extension, please refer to the Water Departments', Department Instruction (D.I.) 55.27 for further information and procedure.

Mail your request for an extension to :

City of San Diego, Water Department
Attn: Meter Services
2797 Caminito Chollas
San Diego, Ca. 92105-5097

Should you have any questions regarding this matter, please call the Fire Hydrant "Hot Line" at: (xxx) xxx-xxx.

Sincerely,

City of San Diego Water Department



Fire Hydrant Meter Relocate/Removal Request

(EXHIBIT D)

For Office Use Only

NS Req:	FHM Fac #:
Date:	By:

Date:

Instruction: Complete pertinent information then FAX both form and map to (xxx) xxx-xxxx, mail, or hand-deliver to the City of San Diego, Water Department/Meter Shop at: 2707 Caminito Chollas San Diego, CA 92105

Meter Information

Billing Account #:	Requested Move Date:
Current Fire Hydrant Meter Location:	
New Meter Location: (Attach a detailed map, Thomas Bros map location or construction drawing.)	

Company Information

Company Name:			
Mailing Address			
City:	State:	Zip Code:	Phone: ()
Name and Title of Requestor:			Phone: ()
Site Contact Name and Title			Phone: ()
Pager #:			Cell: ()
Responsible Party Name authorizing relocation fee:			
Signature:	Title:	Date:	

Fire Hydrant Meter Removal Request

<input type="checkbox"/> Check Box to Request Removal of Above Meter	Requested Removal Date:	
Provide current Meter location if different from above:		
Signature:	Title:	Date:
Phone: ()	Pager: ()	

For Office Use Only

CIS Account #:	Fees Amount: \$		
Meter Serial #:	Size:	Make/Style	
Backflow #:	Size:	Make/Style	
Name:	Signature:	Date:	

FHM Relocate_Removal Form

FHM App Created: 11/2/00-htp

APPENDIX B
SAMPLE CITY INVOICE

City of San Diego, Field Engineering Div., 9485 Aero Drive, SD CA 92123						Contractor's Name:					
Project Name:						Contractor's Address:					
SAP No. (WBS/IO/CC)											
City Purchase Order No.						Contractor's Phone #:			Invoice No.		
Resident Engineer (RE):						Contractor's Fax #:			Invoice Date:		
RE Phone#:			RE Fax#:			Contact Name:			Billing Period:		
Item #	Item Description	Contract Authorization				Previous Estimate		This Estimate		Totals to Date	
		Unit	Qty	Price	Extension	%/QTY	Amount	% / QTY	Amount	% / QTY	Amount
1	2 Parallel 4" PVC C900	LF	1,380	\$34.00	\$46,920.00						
2	48" Primary Steel Casing	LF	500	\$1,000.00	\$500,000.00						
3	2 Parallel 12" Secondary Steel	LF	1,120	\$53.00	\$59,360.00						
4	Construction and Rehab of PS 49	LS	1	\$150,000.00	\$150,000.00						
5	Demo	LS	1	\$14,000.00	\$14,000.00						
6	Install 6' High Chain Link Fence	LS	1	\$5,600.00	\$5,600.00						
7	General Site Restoration	LS	1	\$3,700.00	\$3,700.00						
8	10" Gravity Sewer	LF	10	\$292.00	\$2,920.00						
9	4" Blow Off Valves	EA	2	\$9,800.00	\$19,600.00						
10	Bonds	LS	1	\$16,000.00	\$16,000.00						
11	Field Orders	AL	1	80,000	\$80,000.00						
11.1	Field Order 1	LS	5,500	\$1.00	\$5,500.00						
11.2	Field Order 2	LS	7,500	\$1.00	\$7,500.00						
11.3	Field Order 3	LS	10,000	\$1.00	\$10,000.00						
11.4	Field Order 4	LS	6,500	\$1.00	\$6,500.00						
12	Certified Payroll	LS	1	\$1,400.00	\$1,400.00						
CHANGE ORDERS											
Change Order 1			4,890								
Items 1-4					\$11,250.00						
Item 5-Deduct Bid Item 3		LF	120	-\$53.00	(\$6,360.00)						
Change Order 2			160,480								
Items 1-3					\$95,000.00						
Item 4 Deduct Bid Item 1		LF	380	-\$340.00	(\$12,920.00)						
Item 5-Encrease bid Item 9		LF	8	\$9,800.00	\$78,400.00						
Change Order 3 (Close Out)			-121,500								
Item 1 Deduct Bid Item 3			53	-500.00	(\$26,500.00)						
Item 2 Deduct Bid Item 4		LS	-1	45,000.00	(\$45,000.00)						
Items 3-9			1	-50,500.00	(\$50,500.00)						
SUMMARY								Total This	\$ -	Total Billed	\$0.00
A. Original Contract Amount						Retention and/or Escrow Payment Schedule					
B. Approved Change Order 1 Thru 3						Total Retention Required as of this billing					
C. Total Authorized Amount (A+B)						Previous Retention Withheld in PO or in Escrow					
D. Total Billed to Date						Add'l Amt to Withhold in PO/Transfer in Escrow:					
E. Less Total Retention (5% of D)						Amt to Release to Contractor from PO/Escrow:					
F. Less Total Previous Payments											
G. Payment Due Less Retention						Contractor Signature and Date:					
H. Remaining Authorized Amount											

APPENDIX C

HYDROSTATIC DISCHARGE FORM

APPENDIX

Hydrostatic Discharge Requirements Certification (Discharge Events < 500,000 gpd)

All discharge activities related to this project comply with the Regional Water Quality Control Board (RWQCB) Order No. 2002-0020, General Permit for Discharges of Hydrostatic Test Water and Potable Water to Surface Water and Storm Drains as referenced by (http://www.swrcb.ca.gov/rwqcb9/board_decisions/adopted_orders/2002/2002_0020.shtml), and as follows:

Discharged water has been dechlorinated to below 0.1 (mg/l) level; and effluent has been maintained between 6 and 9 (PH) based on:							<i>is discharge within acceptable limits?</i>		<i>Comment</i>
Event #	Discharge Date & Amount (GAL)	Discharge Time	Meter Readings (at source)	Test Results (Chlorine / PH)	Name of Personnel Conducting Tests (print)	*signature of personnel	yes	no	
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
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	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						

**By signing, I certify that all of the statements and conditions for hydrostatic discharge events are correct.*

Project Name: _____

Work Order No.(s): _____

Have any thresholds have been exceeded? Per Order No. 2002-0020, would this be a reportable discharge and must be reported **within 24 hours** of the event? [Reportable discharge would include violation of maximum gallons per day, any upset which exceeds any effluent limit]

APPENDIX D
HAZARDOUS LABELS/FORMS

INCIDENT/RELEASE ASSESSMENT FORM ¹

If you have an emergency, Call 911

Handlers of hazardous materials are required to report releases. The following is a tool to be used for assessing if a release is reportable. Additionally, a non-reportable release incident form is provided to document why a release is not reported (see back).

Questions for Incident Assessment:

	YES	NO
1. Was anyone killed or injured, or did they require medical care or admitted to a hospital for observation?	<input type="checkbox"/>	<input type="checkbox"/>
2. Did anyone, other than employees in the immediate area of the release, evacuate?	<input type="checkbox"/>	<input type="checkbox"/>
3. Did the release cause off-site damage to public or private property?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is the release greater than or equal to a reportable quantity (RQ)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Was there an uncontrolled or unpermitted release to the air?	<input type="checkbox"/>	<input type="checkbox"/>
6. Did an uncontrolled or unpermitted release escape secondary containment, or extend into any sewers, storm water conveyance systems, utility vaults and conduits, wetlands, waterways, public roads, or off site?	<input type="checkbox"/>	<input type="checkbox"/>
7. Will control, containment, decontamination, and/or clean up require the assistance of federal, state, county, or municipal response elements?	<input type="checkbox"/>	<input type="checkbox"/>
8. Was the release or threatened release involving an unknown material or contains an unknown hazardous constituent?	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the incident a threatened release (a condition creating a substantial probability of harm that requires immediate action to prevent, reduce, or mitigate damages to persons, property, or the environment)?	<input type="checkbox"/>	<input type="checkbox"/>
10. Is there an increased potential for secondary effects including fire, explosion, line rupture, equipment failure, or other outcomes that may endanger or cause exposure to employees, the general public, or the environment?	<input type="checkbox"/>	<input type="checkbox"/>

If the answer is YES to any of the above questions – report the release to the California Office of Emergency Services at 800-852-7550 and the local CUPA daytime: (619) 338-2284, after hours: (858) 565-5255. Note: other state and federal agencies may require notification depending on the circumstances.

Call 911 in an emergency

If all answers are NO, complete a Non Reportable Release Incident Form (page 2 of 2) and keep readily available. Documenting why a “no” response was made to each question will serve useful in the event questions are asked in the future, and to justify not reporting to an outside regulatory agency.

If in doubt, report the release.

¹ This document is a guide for accessing when hazardous materials release reporting is required by Chapter 6.95 of the California Health and Safety Code. It does not replace good judgment, Chapter 6.95, or other state or federal release reporting requirements.

NON REPORTABLE RELEASE INCIDENT FORM

1. RELEASE AND RESPONSE DESCRIPTION

Incident # _____

Date/Time Discovered	Date/Time Discharge	Discharge Stopped <input type="checkbox"/> Yes <input type="checkbox"/> No
Incident Date / Time:		
Incident Business / Site Name:		
Incident Address:		
Other Locators (Bldg, Room, Oil Field, Lease, Well #, GIS)		
Please describe the incident and indicate specific causes and area affected. Photos Attached?: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Indicate actions to be taken to prevent similar releases from occurring in the future.		

2. ADMINISTRATIVE INFORMATION

Supervisor in charge at time of incident:	Phone:
Contact Person:	Phone:

3. CHEMICAL INFORMATION

Chemical	Quantity <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT ³
Chemical	Quantity <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT ³
Chemical	Quantity <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT ³
Clean-Up Procedures & Timeline:	
Completed By:	Phone:
Print Name:	Title:

EMERGENCY RELEASE FOLLOW - UP NOTICE REPORTING FORM

A	BUSINESS NAME	FACILITY EMERGENCY CONTACT & PHONE NUMBER () -	
B	INCIDENT DATE MO DAY YR	TIME OES NOTIFIED (use 24 hr time)	OES CONTROL NO.
C	INCIDENT ADDRESS LOCATION	CITY / COMMUNITY	COUNTY ZIP
D	CHEMICAL OR TRADE NAME (print or type)	CAS Number	
E	CHECK IF CHEMICAL IS LISTED IN 40 CFR 355, APPENDIX A <input type="checkbox"/>	CHECK IF RELEASE REQUIRES NOTIFICATION UNDER 42 U.S.C. Section 9603 (a) <input type="checkbox"/>	
F	PHYSICAL STATE CONTAINED <input type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> GAS	PHYSICAL STATE RELEASED <input type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> GAS	QUANTITY RELEASED
G	ENVIRONMENTAL CONTAMINATION <input type="checkbox"/> AIR <input type="checkbox"/> WATER <input type="checkbox"/> GROUND <input type="checkbox"/> OTHER	TIME OF RELEASE	DURATION OF RELEASE — DAYS — HOURS — MINUTES
H	ACTIONS TAKEN		
I	KNOWN OR ANTICIPATED HEALTH EFFECTS (Use the comments section for addition information)		
J	<input type="checkbox"/> ACUTE OR IMMEDIATE (explain) _____ <input type="checkbox"/> CHRONIC OR DELAYED (explain) _____ <input type="checkbox"/> NOTKNOWN (explain) _____		
K	ADVICE REGARDING MEDICAL ATTENTION NECESSARY FOR EXPOSED INDIVIDUALS		
L	COMMENTS (INDICATE SECTION (A - G) AND ITEM WITH COMMENTS OR ADDITIONAL INFORMATION)		
M	CERTIFICATION: I certify under penalty of law that I have personally examined and I am familiar with the information submitted and believe the submitted information is true, accurate, and complete. REPORTING FACILITY REPRESENTATIVE (print or type) _____ SIGNATURE OF REPORTING FACILITY REPRESENTATIVE _____ DATE: _____		

EMERGENCY RELEASE FOLLOW-UP NOTICE REPORTING FORM INSTRUCTIONS

GENERAL INFORMATION:

Chapter 6.95 of Division 20 of the California Health and Safety Code requires that written emergency release follow-up notices prepared pursuant to 42 U.S.C. § 11004, be submitted using this reporting form. Non-permitted releases of reportable quantities of Extremely Hazardous Substances (listed in 40 CFR 355, appendix A) or of chemicals that require release reporting under section 103(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [42 U.S.C. § 9603(a)] must be reported on the form, as soon as practicable, but no later than 30 days, following a release. The written follow-up report is required in addition to the verbal notification.

BASIC INSTRUCTIONS:

- The form, when filled out, reports follow-up information required by 42 U.S.C § 11004. Ensure that all information requested by the form is provided as completely as possible.
- If the incident involves reportable releases of more than one chemical, prepare one report form for each chemical released.
- If the incident involves a series of separate releases of chemical(s) at different times, the releases should be reported on separate reporting forms.

SPECIFIC INSTRUCTIONS:

Block A: Enter the name of the business and the name and phone number of a contact person who can provide detailed facility information concerning the release.

Block B: Enter the date of the incident and the time that verbal notification was made to OES. The OES control number is provided to the caller by OES at the time verbal notification is made. Enter this control number in the space provided.

Block C: Provide information pertaining to the location where the release occurred. Include the street address, the city or community, the county and the zip code.

Block D: Provide information concerning the specific chemical that was released. Include the chemical or trade name and the Chemical Abstract Service (CAS) number. Check all categories that apply. Provide best available information on quantity, time and duration of the release.

Block E: Indicate all actions taken to respond to and contain the release as specified in 42 U.S.C. § 11004(c).

Block F: Check the categories that apply to the health effects that occurred or could result from the release. Provide an explanation or description of the effects in the space provided. Use Block H for additional comments/information if necessary to meet requirements specified in 42 U.S.C. § 11004(c).

Block G: Include information on the type of medical attention required for exposure to the chemical released. Indicate when and how this information was made available to individuals exposed and to medical personnel, if appropriate for the incident, as specified in 42 U.S.C. § 11004(c).

Block H: List any additional pertinent information.

Block I: Print or type the name of the facility representative submitting the report. Include the official signature and the date that the form was prepared.

MAIL THE COMPLETED REPORT TO:

**State Emergency Response Commission (SERC)
Attn: Section 304 Reports
Hazardous Materials Unit
3650 Schriever Avenue
Mather, CA 95655**

NOTE: Authority cited: Sections 25503, 25503.1 and 25507.1, Health and Safety Code. Reference: Sections 25503(b)(4), 25503.1, 25507.1, 25518 and 25520, Health and Safety Code.

ATTACHMENT D
CONTRACT FRONT END VOLUME 2

City of San Diego

CONTRACTOR'S NAME: ORION CONSTRUCTION CORP.
ADDRESS: 2185 LA MIRADA DRIVE, VISTA, CA 92081
TELEPHONE NO.: 760-597-9660 FAX NO.: 760-597-9661
CITY CONTACT: Mike Bajoua/Francisco Bordon, 600 B Street, Suite 800, MS 908A, San Diego, CA 92101-4520
Mbajoua@sandiego.gov/Fbordon@sandiego.gov, Ph: 619-533-4628/533 6625, Fax: 619-533-6627

NB/CA/RIR



CONTRACT DOCUMENTS

FOR

OTAY WATER TREATMENT PLANT CONCRETE WORK DESIGN-BUILD CONTRACT

VOLUME 2 OF 2

RFQ NO.: As-Needed Design-Build Services for the Engineering & Capital Projects Department – 5151DB
RFP NO.: 5581DBA
TASK ORDER NO.: 11DB01
BID NO.: K-12-5581-DBA-3
SAP NO. (WBS/IO/CC): S-11059
CLIENT DEPARTMENT: 2013
PROJECT TYPE: BI

THIS CONTRACT IS SUBJECT TO THE FOLLOWING:

- THE CITY'S SUBCONTRACTING PARTICIPATION REQUIREMENTS FOR SLBE PROGRAM.

THIS BIDDING DOCUMENT TO BE SUBMITTED IN ITS ENTIRETY

TABLE OF CONTENTS

Volume 2 - Bidding Documents

The following forms must be completed in their entirety and submitted with the Bid. Include the form(s) even if the information does not apply. Where the information does not apply write in N/A. Failure to include any of the forms may cause the Bid to be deemed **non-responsive**. If you are uncertain or have any questions about any required information, contact the City no later than 14 days prior to Bid due date.

<u>DESCRIPTION</u>	<u>PAGE NUMBER</u>
1. Bid/Proposal.....	145-147
2. Non-Collusion Affidavit to be executed by Bidder and Submitted with Bid under 23 USC 112 and PCC 7106	148
3. Contractors Certification of Pending Actions.....	149
4. Equal Benefits Ordinance Certification of Compliance.....	150
5. Design-Build Proposal	151
6. Price Proposal Forms (Design Build)	152-154
7. Form AA05 – Design-Build List of Subcontractors	155
8. Form AA15 - Design-Build List of Subcontractors.....	156
9. Form AA25 - Design-Build Named Equipment/Material Supplier List.....	157
10. Form AA30 - Design-Build Named Equipment/Material Supplier List.....	158

BIDDING DOCUMENTS

PROPOSAL

Bidder's General Information

To the City of San Diego:

Pursuant to "Invitation to Bids", specifications, and requirements on file with the City Clerk, and subject to all provisions of the Charter and Ordinances of the City of San Diego and applicable laws and regulations of the United States and the State of California, the undersigned hereby proposes to furnish to the City of San Diego, complete at the prices stated herein, the items or services hereinafter mentioned. The undersigned further warrants that this bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

The undersigned bidder(s) further warrants that bidder(s) has thoroughly examined and understands the entire Contract Documents (plans and specifications) and the Bidding Documents therefore, and that by submitting said Bidding Documents as its bid proposal, bidder(s) acknowledges and is bound by the entire Contract Documents, including any addenda issued thereto, as such Contract Documents incorporated by reference in the Bidding Documents.

IF A SOLE OWNER OR SOLE CONTRACTOR SIGNS HERE:

- (1) Name under which business is conducted _____
- (2) Signature (Given and surname) of proprietor _____
- (3) Place of Business (Street & Number) _____
- (4) City and State _____ Zip Code _____
- (5) Telephone No. _____ Facsimile No. _____

IF A PARTNERSHIP, SIGN HERE:

- (1) Name under which business is conducted _____
- (2) Name of each member of partnership [indicate character of each partner, general or special (limited):

BIDDING DOCUMENTS

(3) Signature (Note: Signature must be made by a general partner)

Full Name and Character of partner

(4) Place of Business (Street & Number)
(5) City and State Zip Code
(6) Telephone No. Facsimile No.

IF A CORPORATION, SIGN HERE:

(1) Name under which business is conducted ORION CONSTRUCTION CORP.

(2) Signature, with official title of officer authorized to sign for the corporation:

Signature: [Handwritten Signature]
(Printed Name): RICHARD DOWSING
(Title of Officer): PRESIDENT

(Impress Corporate Seal Here)

(3) Incorporated under the laws of the State of CALIFORNIA
(4) Place of Business (Street & Number) 2185 LA MIRADA DRIVE
(5) City and State VISTA, CA Zip Code 92081
(6) Telephone No. 760-577-9660 Facsimile No. 760-577-9661

THE FOLLOWING SECTIONS MUST BE FILLED IN BY ALL PROPOSERS:

In accordance with the "INVITATION TO BIDS", the bidder holds a California State Contractor's license for the following classification(s) to perform the work described in these specifications:

LICENSE CLASSIFICATION A

LICENSE NO. 549309 EXPIRES 11/30, 2012

This license classification must also be shown on the front of the bid envelope. Failure to show license classification on the bid envelope may cause return of the bid unopened.

TAX IDENTIFICATION NUMBER (TIN): [Redacted]

E-Mail Address: ROB@ORIONCONSTRUCTION.COM

BIDDING DOCUMENTS

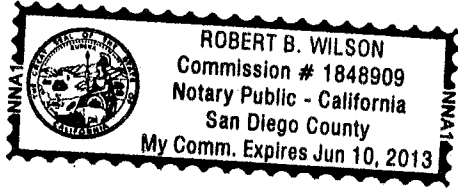
THIS PROPOSAL MUST BE NOTARIZED BELOW:

I certify, under penalty of perjury, that the representations made herein regarding my State Contractor's license number, classification and expiration date are true and correct.

Signature *R. Dawson* Title PRESIDENT

SUBSCRIBED AND SWORN TO BEFORE ME, THIS 3rd DAY OF APRIL, 2012,
Notary Public in and for the County of SAN DIEGO, State of CALIFORNIA

Robert B. Wilson
(NOTARIAL SEAL)



NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID UNDER 23 USC 112 AND PCC 7106

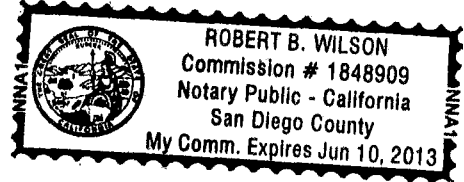
State of California)
County of SAN DIEGO) ss.

RICHARD DOWSING, being first duly sworn, deposes and says that he or she is PRESIDENT of the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Signed: [Signature]
Title: PRESIDENT

Subscribed and sworn to before me this 3rd day of APRIL, 2012
[Signature]
Notary Public

(SEAL)



CONTRACTORS CERTIFICATION OF PENDING ACTIONS

As part of its bid or proposal (Non-Price Proposal in the case of Design-Build contracts), the Bidder shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against the Bidder in a legal or administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

CHECK ONE BOX ONLY.

The undersigned certifies that within the past 10 years the Bidder has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers.

The undersigned certifies that within the past ten years the Bidder has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers. A description of the status or resolution of that complaint, including any remedial action taken and the applicable dates is as follows:

Contractor Name ORION CONSTRUCTION CORP.

Certified By RICHARD DOWNSING Title PRESIDENT

R. Downsing Date 04/03/12
Signature

USE ADDITIONAL FORMS AS NECESSARY

BIDDING DOCUMENTS

**EQUAL BENEFITS ORDINANCE
CERTIFICATION OF COMPLIANCE**



For additional information, contact:
CITY OF SAN DIEGO
EQUAL BENEFITS PROGRAM
 202 C Street, MS 9A, San Diego, CA 92101
 Phone (619) 533-3948 Fax (619) 533-3220

COMPANY INFORMATION	
Company Name: ORION CONSTRUCTION CORP.	Contact Name: ROB WILSON
Company Address: 2125 LA MIRADA DRIVE	Contact Phone: 760-597-9660
VISTA, CA 92081	Contact Email: ROB@ORIONCONSTRUCTION.COM

CONTRACT INFORMATION	
Contract Title: OTAY WATER TRT. PLANT CONCRETE WORK	Start Date: JUNE 2012
Contract Number (if no number, state location): BID # K-12-5581-DBA-3	End Date: JUNE 2013

SUMMARY OF EQUAL BENEFITS ORDINANCE REQUIREMENTS

The Equal Benefits Ordinance [EBO] requires the City to enter into contracts only with contractors who certify they will provide and maintain equal benefits as defined in SDMC §22.4302 for the duration of the contract. To comply:

- Contractor shall offer equal benefits to employees with spouses and employees with domestic partners.
 - Benefits include health, dental, vision insurance; pension/401(k) plans; bereavement, family, parental leave; discounts, child care; travel/relocation expenses; employee assistance programs; credit union membership; or any other benefit.
 - Any benefit not offer an employee with a spouse, is not required to be offered to an employee with a domestic partner.
- Contractor shall post notice of firm's equal benefits policy in the workplace and notify employees at time of hire and during open enrollment periods.
- Contractor shall allow City access to records, when requested, to confirm compliance with EBO requirements.
- Contractor shall submit *EBO Certification of Compliance*, signed under penalty of perjury, prior to award of contract.

NOTE: This summary is provided for convenience. Full text of the EBO and Rules Implementing the EBO are available at www.sandiego.gov/administration.

CONTRACTOR EQUAL BENEFITS ORDINANCE CERTIFICATION

Please indicate your firm's compliance status with the EBO. The City may request supporting documentation.

- I affirm **compliance** with the EBO because my firm (*contractor must select one reason*):
- Provides equal benefits to spouses and domestic partners.
 - Provides no benefits to spouses or domestic partners.
 - Has no employees.
 - Has collective bargaining agreement(s) in place prior to January 1, 2011, that has not been renewed or expired.
- I request the City's approval to pay affected employees a cash equivalent in lieu of equal benefits and verify my firm made a reasonable effort but is not able to provide equal benefits upon contract award. I agree to notify employees of the availability of a cash equivalent for benefits available to spouses but not domestic partners and to continue to make every reasonable effort to extend all available benefits to domestic partners.

It is unlawful for any contractor to knowingly submit any false information to the City regarding equal benefits or cash equivalent associated with the execution, award, amendment, or administration of any contract. [San Diego Municipal Code §22.4307(a)]

Under penalty of perjury under laws of the State of California, I certify the above information is true and correct. I further certify that my firm understands the requirements of the Equal Benefits Ordinance and will provide and maintain equal benefits for the duration of the contract or pay a cash equivalent if authorized by the City.

RICHARD DOWSING / PRES.
 Name/Title of Signatory

[Signature]
 Signature

04/03/12
 Date

FOR OFFICIAL CITY USE ONLY

Receipt Date:	EBO Analyst:	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved – Reason:
---------------	--------------	-----------------------------------	---

(Rev 02/15/2011)

BIDDING DOCUMENTS


Design-Build Proposal

1. The undersigned Design-Builder proposes and agrees, if this Proposal is accepted, to enter into an agreement with the City in the form included in the Contract Documents to perform the Work as specified or indicated in said Contract Documents entitled **Otay Water Treatment Plant Concrete Work Design-Build Contract**.
2. The Design-Builder accepts all of the terms and conditions of the Contract Documents, including without limitation those in the RFP.
3. This Proposal will remain open for the period stated in the RFP unless otherwise required by law. The Design-Builder will enter into an agreement within the time and in the manner required in the RFP and will furnish the insurance certificates, Payment Bond, and Performance Bond required by the Contract Documents.
4. The Design-Builder has examined copies of all the Contract Documents including the following addenda (receipt of all of which is hereby acknowledged):
5. The Design-Builder has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules, and regulations), and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as Design-Builder deems necessary.

To all the foregoing, and including all Proposal schedule(s) and information required of the Design-Builder contained in this Proposal Form, said Design-Builder further agrees to complete the Work and Services required under the Contract Documents within the Contract Time stipulated in said Contract Documents, and to accept in full payment therefore the Contract Price based on the Total Proposal Price(s) named in the aforementioned Proposal schedule(s).

Dated: APRIL 3, 2012

Design-Builder: ORION CONSTRUCTION CORP.

By: 
(Signature)

Title: PRESIDENT

**BIDDING DOCUMENTS
PRICE PROPOSAL FORMS**

The Bidder agrees to the design and construction of **OTAY WATER TREATMENT PLANT CONCRETE WORK DESIGN-BUILD CONTRACT**, for the City of San Diego, in accordance with these contract documents for the prices listed below. The Bidder guarantees the Contract Price for a period of 120 days (90 days for federally funded contracts and contracts valued at \$500,000 or less) from the date of Bid opening to Award of the Contract. The duration of the Contract Price guarantee shall be extended by the number of days required for the City to obtain all items necessary to fulfill all conditions precedent e.g., bond and insurance.

Item No.	NAICS CODE	Description	Quantity	D*	Unit	Unit Price	Extension
BASE BID							
1	237110	Bonds (Payment and Performance)	1		LS	 	\$15,000. ⁰⁰
2	541330	Engineering and Design Services	1	D	LS	 	\$30,000. ⁰⁰
3	237110	Field Construction	1		LS	 	\$1,169,500. ⁰⁰
4	541330	Storm Water Pollution Prevention	1		LS	 	\$10,000. ⁰⁰
5	238990	Disposal of Class I Regulated Waste Material	1		TONS	\$1,500.	\$1,500. ⁰⁰
6	238990	Disposal of Class II Regulated Waste Material	1		TONS	\$1,000.	\$1,000. ⁰⁰
7	237110	City Contingency	1		AL	 	\$60,000.00
TOTAL PROPOSED PRICE (ITEMS NO 1 THROUGH 7 INCLUSIVE):							\$1,287,000. ⁰⁰

* Design Element (For City Use)

BIDDING DOCUMENTS

Total Price For Design-Build Proposal, (items 1 through 7, inclusive) amount written in words:

ONE MILLION, TWO HUNDRED EIGHTY SEVEN THOUSAND DOLLARS

Design-Builder: ORION CONSTRUCTION CORP. AND NO CENTS

Title: PRESIDENT

Signature: [Handwritten Signature]

The names of all persons interested in the foregoing proposal as principals are as follows:

RICHARD DOWSING, PRES/SEC/TREAS.

IMPORTANT NOTICE: If Bidder or other interested person is a corporation, state secretary, treasurer, and manager thereof; if a co-partnership, state true name of firm, also names of all individual co-partners composing firm; if Bidder or other interested person is an individual, state first and last names in full.

BIDDING DOCUMENTS

NOTES:

- A. The Contract Price to be used in the selection process will be determined as described in Section 5.6 of the RFP.
- B. Prices and notations shall be in ink or typewritten. All corrections (which have been initiated by the Bidder using erasures, strike out, line out, or "white-out") shall be typed or written in with ink adjacent thereto, and shall be initialed in ink by the person signing the Proposal.
- C. Failure to initial all corrections made in the bidding documents shall cause the Proposal to be rejected as **non-responsive** and ineligible for further consideration.
- D. Blank spaces must be filled in, using figures. The Design-Builder's failure to submit a price for any Bid item that requires the Design-Builder to submit a price shall render the Proposal **non-responsive** and shall be cause for its rejection.
- E. Unit prices shall be entered for all unit price items. Unit prices shall not exceed two (2) decimal places. If the Unit prices entered exceed two (2) decimal places, the City will only use the first two digits after the decimal points without rounding up or down.
- F. All extensions of the unit prices bid will be subject to verification by the City. In the case of inconsistency or conflict between the product of the Quantity x Unit Price and the Extension, the product shall govern.
- G. In the case of inconsistency or conflict, between the sums of the Extensions with the estimated total Bid, the sum of the Extensions shall govern.
- H. Proposals shall not contain any recapitulation of the Work. Conditional Bids will be rejected as being **non-responsive**. Alternative proposals will not be considered unless called for.
- I. The Proposal shall contain an acknowledgment of receipt of all addenda as specified in the RFP. Failure to acknowledge addenda shall render the Bid **non-responsive** and shall be cause for its rejection.

BIDDING DOCUMENTS

DESIGN-BUILD LIST OF SUBCONTRACTORS TO BE INCLUDED IN THE PRICE PROPOSAL ONLY

In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act", Division 2, Part 1, Chapter 4 of the Public Contract Code, the Design-Builder shall list below the name and address of each Subcontractor who will perform work, labor, render services or specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Design-Builder's total Bid. The Design-Builder shall also list below the portion of the work which will be done by each Subcontractor. The Design-Builder shall list only one Subcontractor for each portion of the Work. The **DOLLAR VALUE** of the total Bid to be performed shall be stated for all Subcontractors listed. Failure to comply with this requirement shall result in the Bid being rejected as non-responsive and ineligible for award. The Design-Builder's attention is directed to the Special Provisions - General; Paragraph 2-3 Subcontracts, which stipulates the percent of the Work to be performed with the Design-Builder's own forces. The Design-Builder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors that Design-Builder are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OF DESIGNER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone OR SDVOSB (1)	WHERE CERTIFIED (2)	CHECK IF JOINT VENTURE PARTNERSHIP
Harris & Associates 750 B Street, Suite 1800 San Diego, CA 92101 (619) 236-1778	DESIGNER	Principal Designer	\$16,000.00 PD \$16,800.00	OBE		
Wedgeco Inc. DBA Hydrodynamics 2651 Commercial Street San Diego, CA 92113 (619) 236-8928	CONSTRUCTOR	Surface Preparation and Coatings	\$527,000.00 PD \$564,100.00	ELBE	CITY	

- (1) As appropriate. Design-Builder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):
- | | | | |
|---|--------|--|---------|
| Certified Minority Business Enterprise | MBE | Certified Woman Business Enterprise | WBE |
| Certified Disadvantaged Business Enterprise | DBE | Certified Disabled Veteran Business Enterprise | DVBE |
| Other Business Enterprise | OBE | Emerging Local Business Enterprise | ELBE |
| Small Local Business Enterprise | SLBE | Small Disadvantaged Business | SDB |
| Woman-Owned Small Business | WoSB | HUBZone Business | HUBZone |
| Service-Disabled Veteran Owned Small Business | SDVOSB | | |
- (2) As appropriate. Design-Builder shall indicate if Subcontractor is certified by:
- | | | | |
|--|--------|---|----------|
| City of San Diego | CITY | State of California Department of Transportation | CALTRANS |
| California Public Utilities Commission | CPUC | San Diego Regional Minority Subcontractor Diversity Council | SRMSDC |
| State of California's Department of General Services | CADoGS | City of Los Angeles | LA |
| State of California | CA | U.S. Small Business Administration | SBA |

The Design-Builder will not receive any subcontracting participation percentages if the Design-Builder fails to submit the required proof of certification (except for OBE, SLBE, and ELBE)

BIDDING DOCUMENTS

DESIGN-BUILD NAMED EQUIPMENT/MATERIAL SUPPLIER LIST TO BE INCLUDED IN THE PRICE PROPOSAL ONLY

The Design-Builder seeking the recognition of equipment, materials, or supplies obtained from Suppliers towards achieving any mandatory, voluntary, or both subcontracting participation percentages shall submit with the Bid the Named Equipment/Material Supplier List. The Named Equipment/Material Supplier List, at a minimum, shall have the name, locations (City) and the **DOLLAR VALUE** of the Suppliers. The Design-Builder will be credited up to 60% of the amount to be paid to the Suppliers for such materials/supplies unless vendor manufactures or substantially alters materials/supplies in which case 100% will be credited. The Design-Builder shall indicate (Yes/No) whether listed firm is a supplier or manufacturer. In calculating the subcontractor participation percentages, vendors/suppliers will receive 60% credit of the listed **DOLLAR VALUE**, whereas manufacturers will receive 100% credit. If no indication provided, listed firm will be credited at 60% of the listed **DOLLAR VALUE** for purposes of calculating the subcontractor participation percentages, Suppliers will receive 60% credit of the listed **DOLLAR VALUE**, whereas manufacturers will receive 100% credit. If no indication provided, listed firm will be credited at 60% of the listed **DOLLAR VALUE** for purposes of calculating the subcontractor participation percentages.

NAME, ADDRESS AND TELEPHONE NUMBER OF VENDOR/SUPPLIER	MATERIALS OR SUPPLIES	DOLLAR VALUE OF MATERIALS OR SUPPLIES	SUPPLIER (Yes/No)	MANUFACTURER (Yes/No)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB (1)	WHERE CERTIFIED (2)

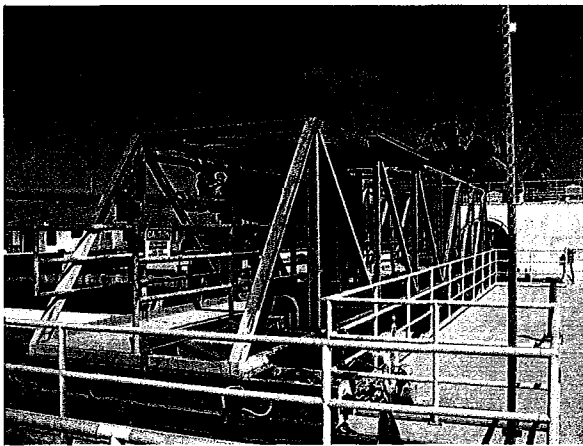
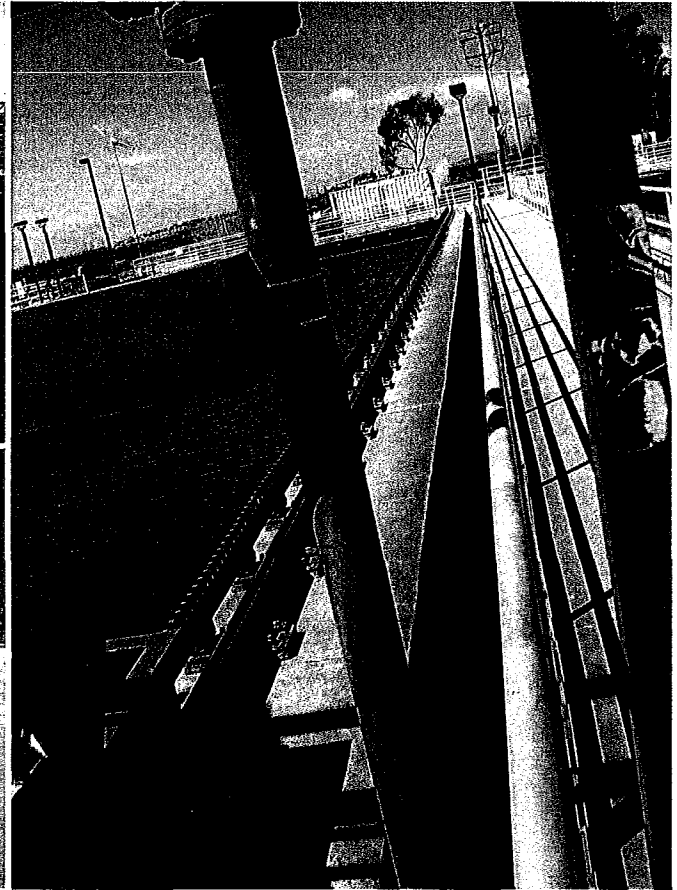
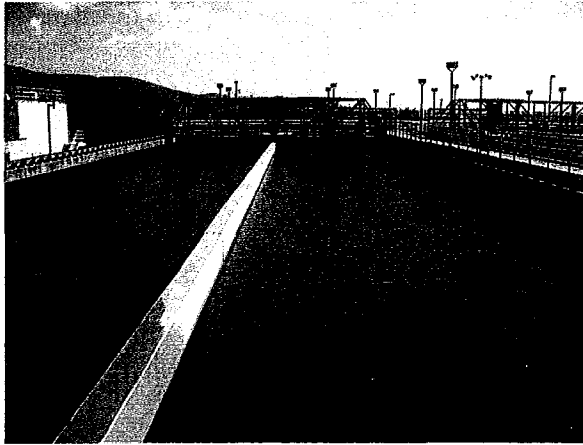
- (1) As appropriate, Design-Builder shall identify Vendor/Supplier as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):
- | | | | |
|---|--------|--|---------|
| Certified Minority Business Enterprise | MBE | Certified Woman Business Enterprise | WBE |
| Certified Disadvantaged Business Enterprise | DBE | Certified Disabled Veteran Business Enterprise | DVBE |
| Other Business Enterprise | OBE | Emerging Local Business Enterprise | ELBE |
| Small Local Business Enterprise | SLBE | Small Disadvantaged Business | SDB |
| Woman-Owned Small Business | WoSB | HUBZone Business | HUBZone |
| Service-Disabled Veteran Owned Small Business | SDVOSB | | |
- (2) As appropriate, Design-Builder shall indicate if Vendor/Supplier is certified by:
- | | | | |
|--|--------|---|----------|
| City of San Diego | CITY | State of California Department of Transportation | CALTRANS |
| California Public Utilities Commission | CPUC | San Diego Regional Minority Vendor/Supplier Diversity Council | SRMSDC |
| State of California's Department of General Services | CADoGS | City of Los Angeles | LA |
| State of California | CA | U.S. Small Business Administration | SBA |

The Design-Builder will not receive any subcontracting participation percentages if the Design-Builder fails to submit the required proof of certification (except for OBE, SLBE, and ELBE)

ORIGINAL

City of San Diego

APRIL 3, 2012



Technical Proposal for Otay Water Treatment Plant Concrete Work



Harris & AssociatesSM

Table of Contents

Section 1: Addenda to this RFP	1
Section 2: Exceptions to this RFP	2
Section 3: Executive Summary	3-4
Section 4: Project Team	5-10
Section 5: Technical Approach and Design Concept	11-16
A. Water Treatment Plant System:	11-15
A.1 Water Treatment Plant Flocculation and Sedimentation Basin, Holding and Storage Protective and Anti-Corrosion Coating Application.....	11
A.2 Appurtenance Equipment, Valves, Piping, Metal Plates, and Strips.....	12
A.3 Appurtenance Structures Cross Bridges and Columns	12
A.4 Preparation of Surfaces to be Coated for Restoration.....	12-13
A.5 Quality Assurance/Quality Control Plan (QA/QC Plan)	13-14
A.6 Best Management Practices	15
A.7 Environmental Testing, Monitoring and Mitigation including Handling of Hazardous/Contaminated Materials.....	15
A.8 Corrosion Protection	15
B. Proposed Design Schedule	15-16
Section 6: Construction Plan	17-22
A.1 Construction Approach and Methods	17
A.2 Plan for Operation of Facility during Construction	17-18
A.3 Plan for Phasing of Construction Activities	18
A.4 General Plan for Functional Testing and Start-Up	18-19
A.5 Proposed Safety Program	19-20
A.6 Proposed Emergency Response Plan	20-21
A.7 Proposed Construction Schedule	21
A.8 Traffic Control Management	22

Table of Contents

A.9 Community Impact.....	22
Section 7: Equal Employment and Contracting Opportunity	23
Section 8: Reference Checks	24-25

Appendices:

Appendix A: Orion/Harris Team Member Full Resumes

Appendix B: Project Schedule

Appendix C: Work Force Report

Appendix D: Subcontractor Documentation

Appendix E: Equal Employment Opportunity Plan

Section 1: Addenda to this RFP

Orion Corporation and our Design Partner, Harris & Associates have not received any addenda to this RFP.

Section 2: Exceptions to this RFP

Orion Construction Corporation and our Design Partner, Harris & Associates take no exceptions to this RFP.

Section 3: Executive Summary

Orion Construction Corporation (Orion) is a locally owned and operated general engineering construction company that specializes in public water and wastewater infrastructure construction projects. Orion, which opened for business in 1988, has steadily grown in size and capabilities, reaching a level where it has now provided construction and management services for single projects up to \$25 million in value. With a permanent staff of over 80 experienced local employees and a fleet of construction equipment Orion has the resources necessary to complete a project of this magnitude. Orion has an excellent history of completing quality projects for the City that are on schedule and on budget, in a cooperative relationship with the City staff and the local residents affected by the construction.

Harris & Associates (Harris), Orion Construction's design partner for the Design-Build Otay Water Treatment Plant Concrete Work, specializes in the planning, design, and construction management of Public Infrastructure water supply facilities. The Harris team has a long history working on the City of San Diego water treatment plants.

Design-Build Team (Orion/Harris). The corporate level of this design-build team, including Rob Wilson, Jason Danks, Javier Saunders, and Manuel Najjar each have years of experience working toward completion of various projects within San Diego County. This is not a team which was formed for the sake of convenience. Rather, this team was formed as strategic collaboration that leverages the industry leading strengths that each firm is capable of providing to fulfill, the mandates of this assignment, and to demonstrate our commitment to working relationships with the City of San Diego.

Project Team

The Orion/Harris project manager will be Rob Wilson and will be solely responsible for the team's schedule and delivery of the project. He will be assisted by a fully integrated design and construction staff with specific segments undertaken by local Subcontractors and Vendors selected for their local knowledge of the City of San Diego environment.

In addition, for this project we have engaged Mr. Manuel Najjar of V&A Consultanting as the Corrosion Engineer. Mr. Najjar is well qualified through his experience and education to serve in this capacity, and will review and provide recommendations for the content of the technical specifications for coatings and concrete repairs.

The team as proposed has extensive and direct experience constructing design-build water projects together and the organization charts clearly defines roles and responsibility of individual members ensuring a clear chain of command and accountability. The principal team members are available and committed to the team for the duration of the project. Rob Wilson and Jason Danks as Orion team principals have worked closely on the current D/B Water Group 790 with Harris team member Javier Saunders, forging a close effective professional working relationship as the 790 project is brought to completion.

Technical Approach and Design Concept

As our design partner, Harris will focus their extensive experience in delivering design-build plans and specification documents for City of San Diego projects. Utilizing a standardized design sequence developed from direct experience, they are well qualified to engage all of the project stakeholders in the design process and ensure that all points of view are considered in the

Section 3: Executive Summary (cont'd)

development of the final approved design. As an integral component of our proposal they have incorporated up to date knowledge from our recent design build and design bid build projects, with special emphasis placed on previous City and Harris quality control design review comments and the Orion field team constructability review to ensure all past lessons learned are incorporated into the design process.

Our approach to this project will result in a complete and durable coating system for the concrete basins and steel moving bridges at the Otay WTP. Our design team will evaluate the specifications and recommend the best procedures and products conforming to current industry standards. We will develop and implement a comprehensive quality control plan supported by our own on-site Quality Control Manager (QCM), who will oversee all surface preparation and application of coatings and coordinate closely with the City's Coating Specialist Inspector (CSI).

Construction Plan

Orion as the Design Builder will accept full responsibility for the design, construction, quality, cost, and schedule for the project. Rob Wilson as a single point of contact through the design and construction phases will ensure continuity as the project moves from design into the field construction, and he will be assisted by Jason Danks, the Construction Manager. Jason will continue with the aggressive quality assurance plan into the construction phase and will control the day-to-day field operation of the project. Working closely with the City, a construction-phasing plan will be implemented with all project stakeholders having input. As work proceeds the project coordination will be consistent utilizing regularly documented scheduled construction progress meetings to measure the successful implementation of project phasing, adherence to schedule milestones, community impacts, and the maintenance of up to date as-built plans onsite.

Our approach to the construction of this project will ensure that the Otay WTP continues to fulfill its primary mission of supplying treated water to the City of San Diego without interruption. We will develop a phasing plan for construction activities in close coordination with the plant superintendent. Our on-site safety and best management practices will ensure that the quality of the water produced at the plant is never compromised.

Equal Employment and Contracting Opportunity

The Orion/Harris team affirmatively provides equal opportunity to all employees and qualified applicants for employment without regard to race, color, national origin, ancestry, sex, sexual orientation, marital status, citizenship status, military service status, or any other characteristics protected by State or Federal law or local ordinance.

We will engage Hydrodynamics, a local small specialty subcontractor certified as a ELBE by the City, to perform over 40% of the work. Hydrodynamics will provide hydro blasting and sandblasting for preparation of surfaces prior to coating, and coating work.



Richard Dowsing, President
Orion Construction Corporation

Section 4: Project Team

Purpose and Objective

The Project Management Plan is provided as a guide for the implementation of management procedures and processes associated with the design and construction of Otay Water Treatment Plant Concrete Work. This document formalizes key management issues including organizational structure, communications, coordination, quality control, and other technical efforts affecting overall project control. The ultimate objective of the project management plan is to focus the Orion/Harris team in delivering the project in a manner well above the expectations of the City of San Diego. Completion of the project on or ahead of schedule with the highest degree of quality and in a safe manner, all while maintaining the public's support and trust in the City and our project team, these are the metrics by which project success will be measured.

Each section of this plan will prescribe detailed management procedures developed to address issues which affect the overall success of the project as defined above. In order to properly define the project management protocols, the plan will address each of the following issues in detail:

- Staffing Plan
- Organizational Chart
- Key Personnel Resumes
- Time Commitment

Project Organization and Staffing

The Orion/Harris team brings the City of San Diego a local, highly reputable experienced design-build team, able to provide quality construction, design, and exceptional service, on time and on budget - every time. Rob Wilson will be the Project Manager and will be solely responsible for the team's schedule and delivery and provide the best design solutions possible, Rob will be assisted by a fully integrated design and construction staff.

Staffing Plan

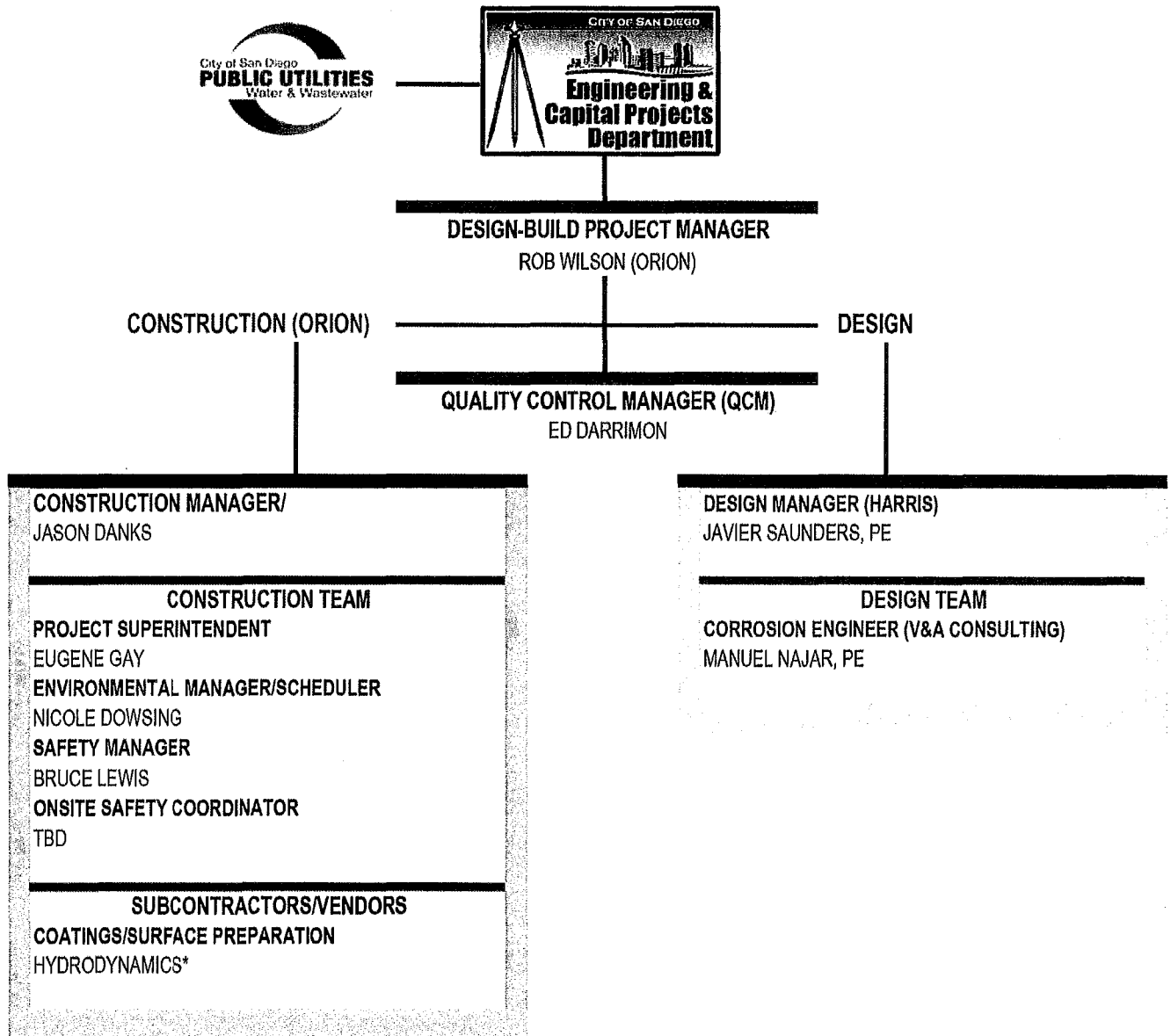
As discussed earlier the Orion/Harris team is comprised of Orion serving as the Prime Proposer and constructor with Harris & Associates providing design services, supported by V&A Consulting for corrosion engineering services.

In accordance with Attachment A, Section 3.0, our DB team includes a Corrosion Engineer (Mr Manuel Najar of V&A Consulting), who has extensive experience in coating and restoration of water treatment facilities. Mr Najar will review the specification included in Section 09810 of this RFP to ensure that it meets current industry standards, and will provide recommendations for revisions to the specification if necessary.

Key Staff

The Orion/Harris team has extensive and direct experience that is ideally applicable to water treatment plant designs, including work accomplished under design-build contracts. The following presentation validates our technical capabilities by briefly summarizing key personnel to be assigned to the project, including relevant design and construction experience of the key members of the Orion/Harris team. As illustrated in the Team Chart, the organization and management of the Orion/Harris team will ensure a clear chain of command and accountability of each team member. Personnel available for assignment to this project (see org chart) are on staff, immediately available, and committed to fulfilling their respective assignments for the full term of the project.

Section 4: Project Team (cont'd)



LEGEND

* City of San Diego SLBE/ELBE Certified

Strength of Key Team Personnel

- Civil - Harris & Associates
- Structural – Harris & Associates
- Mechanical – Harris & Associates
- Electrical – Harris & Associates
- Environmental – Harris & Associates
- Corrosion – V&A Consulting

Section 4: Project Team (cont'd)

Construction Team

Rob Wilson - Design-Build Project Manager

Rob Wilson has 30 years' experience in the construction industry in managing and estimating water and wastewater construction projects. He is the Director of Design-Build Services for Orion Construction and an active member of the Design Build Institute of America (DBIA). His experience includes sewer and water pumping stations, water and wastewater treatment plants, underground utilities, and water storage facilities. Clients served include the City of San Diego, Otay Water District, Padre Dam Municipal Water District, Sweetwater Authority, and many other local public entities. Rob will be directly responsible for the delivery of this successfully completed D/B project to the City.

Rob is instrumental in preparation of proposals, scheduling, procurement, and long range planning on all of Orion's recent Design-Build projects, including D-B Water/Wastewater pipelines at Camp Pendleton, D-B Old Rose Canyon Trunk Sewer, D-B Harvard Ave Trunk Sewer, and D-B Water Group 790. Rob also served as program manager for multiple Design-Build projects for the U.S. Navy at Coronado, which comprised the rehabilitation of a total of ten (10) pump stations.

Jason Danks - Construction Manager

Jason is a construction professional talented at scheduling and coordinating people, equipment and material resources. Jason consistently completes numerous City of San Diego underground utility projects for which he has been responsible; they are completed on time, within budget, and of a quality standard appreciated by the City.

His broad experience includes wastewater and water treatment plant and pump station construction, rehabilitations, and retrofits as well as water and wastewater pipeline construction. Jason completed the trenchless microtunnel Design-Build Harvard Ave 42" Trunk Sewer and Pump Station for the Irvine Ranch Water District which won the 2008 ASCE Project Achievement award. As Construction Manager he recently completed D/B Water Group 790 which has been City nominated for both ASCE and APWA awards by the City.

Jason currently holds certifications in Safety with an OSHA 10 and 30 hr Construction Industry Safety Training, and 40 hr HAZWOPPER Specialty Safety training for the recognition and handling of hazardous materials. These certifications along with direct access to all of the company's labor and equipment resources make Jason the top choice for the construction management that this project will require.

Gene Gay – Project Superintendent

Eugene Gay has 29+ years of Experience on the Construction Industry in Southern California in the Field Operations and Office Management. He has completed projects ranging from Water, Sewer, Storm Drains, Wastewater Treatment Plants. His specific City treatment plant experience is as follows:

- Alvarado Water Filtration Plant, Upgrade and Expansion Phase 1 for the City of San Diego (Project Value: 55 Million)
 - ⇒ Worked on quality control for the rehabilitation of the existing sedimentation and filter basins.
 - ⇒ In charge of mechanical startup and commissioning for the Phase 1 Expansion

Section 4: Project Team (cont'd)

- ⇒ In house quality control for the special coatings and industrial painting.
- ⇒ Coordinated subcontractors and special inspections for the new sedimentation basins installed as part of the Phase 1 Expansion.

- *Point Loma Wastewater Treatment Plant New Sedimentation Basins 11 & 12 for the City of San Diego (Project Value: 8.5 Million)*
 - ⇒ Project Manager in charge of mechanical piping and startup.
 - ⇒ Coordinated with coatings and industrial painting subcontractors.
 - ⇒ In charge of quality control for special metal coatings, handrails, steps, and access man ways.

- *Point Loma Wastewater Treatment Plant Central Boiler Facility and Gallery Upgrades for the City of San Diego (Project Value: 13.5 Million)*
 - ⇒ Project Manager of entire project overseeing all self-performed activities and subcontractor coordination.
 - ⇒ In charge of startup and commissioning of gallery piping, sludge preheat system, and boilers.
 - ⇒ In charge of specialty subcontractors that fabricated offsite, visited fabrication facilities to insure quality control.
 - ⇒ Worked on startup of Comnet system, loop testing, and integration of boilers with the existing plant natural gas system.
 - ⇒ Coordinated with plant operators during the entire project.

Currently Gene is responsible for construction of two ongoing design-build projects for Orion, the Cummings Road Waterline Upgrade project for the U.S. Navy and the Colony Hill Waterline Replacement project with the City of San Diego, both of which will be completed prior to his assignment to this project.

Nicole Dowsing – Environmental Manager/Scheduler

Nicole Dowsing will be acting as the Environmental Manager for the Otay Water Treatment Plant Concrete Work Project. Nicole has a B.S. in Chemistry from University of California Irvine (UCI) and an M.S. in Environmental Management from the University of San Francisco. Nicole is an environmental specialist with a specialty in Ecology. Nicole began her career with the UCI Ocean and Climate Group and has worked for municipalities including Orange County Water District and the City of Salinas. She is currently pending publication of her article on pollutant removal utilizing constructed wetlands in the Journal of Water Science and Technology and will be a valued asset.

Design Team

Javier Saunders, PE – Design Manager

Javier has 27 years of experience leading and managing projects for the public sector. Javier has successfully managed and completed over \$400 million in Public Works Construction contracts of which \$250 million were in the water and wastewater field. Prior to joining Harris & Associates, Javier served as the Assistant Director of Engineering Design for the Port of San Diego where he implemented and managed the Port's first Design-Build Project.

Javier also spent fourteen years with the City of San Diego Water and Wastewater Department

Section 4: Project Team (cont'd)

managing such notable projects as the expansion of Alvarado Reservoirs, upgrades to the Otay Water Treatment Plant, and various trenchless technology projects. Javier handled all aspects of large and small water and wastewater facilities including the design and construction of over 40 miles of pipelines including water and sewer group jobs in various communities throughout San Diego. He participated in the development of the City of San Diego's Water and Sewer Design Guide and in the in the Regional Green Book trench less technology specification committee along with development of Section 500-Pipeline Rehabilitation.

V&A Consulting Engineers (See Appendix A)

Manuel Najar, PE – Corrosion Engineer

With more than 10 years of coating experience, Manuel has been involved with the condition assessment of coating and lining systems for metal and concrete structures including digesters, pipelines, tanks, and other appurtenances for water and wastewater facilities. He is a registered California chemical engineer and a NACE Level 2 Coatings Inspector. Manuel has been involved with plant-wide coating systems management plans and preparation of standard coating design specifications for multiple municipalities. His recent experience includes: West Basin Municipal Water District Reclaimed Water Facility in the City of El Segundo, CA, City of Fernley Raw Water Storage Tank Assessment and Coating Design, City of Sunnyvale Wright Avenue Tank Assessment and Coating Design, and City of Millbrae Water Tank Assessment and Coating Design.

Subcontractor

Wedgeco Inc. DBA Hydrodynamics—Coatings/Surface Preparation

See Appendix A for Hydrodynamics' Brochure.

Time Commitment

The partnership of Orion/Harris team as the Design-Build team for the Design-Build Otay Water Treatment Plant Concrete Work Project, assert our commitment to keeping the identified Project Manager, Design Manager, Construction Manager, QA/QC Manager, and Design Engineers employed on the project for the duration of the project. We have carefully reviewed project expectations and assessed the staff levels necessary. For a project of this size and scope, the Orion/Harris team has confirmed the availability of the key members of the team as identified and their commitment to this project for the duration of the project or their employment by their respective firms, whichever is shorter. Should a key member have to be replaced, the City will have the opportunity to review and approve the resume and experience record of the suggested replacement prior to their assignment to this project. Since this project will begin in June 2012 the Orion/Harris team can and has committed the proposed staff without conflict with ongoing work.

Section 4: Project Team (cont'd)

Staff Availability

PERSON	ROLE	AVAILABILITY	TIME COMMITMENT	ACCOUNTABLE TO
MANAGEMENT TEAM				
Rob Wilson	D/B Project Manager	From NTP- Throughout Project	40% Design- 30% Construction	City of San Diego
CONSTRUCTION TEAM				
Jason Danks	Construction Manager	From NTP- Throughout Project	10% Design- 50% Construction	Rob Wilson
Gene Gay	Senior Project Engineer	From NTP- Throughout Project	10% Design- 75% Construction	Jason Danks
Nicole Dowsing	Environmental Manager/Scheduler	From NTP- Throughout Project	10% Design- 75% Construction	Jason Danks
Bruce Lewis	Safety Manager	From NTP- Throughout Project	10% Design- 20% Construction	Jason Danks
TBD	Onsite Safety Coordinator	From NTP- Throughout Project	0% Design- 100% Construction	Jason Danks
DESIGN TEAM				
Javier Saunders, PE	Project Director	From NTP- Throughout Project	30% Design- 10% Construction	Rob Wilson
Manuel Najar, PE	Corrosion Engineer	From NTP- Throughout Project	30% Design- 10% Construction	Javier Saunders
QUALITY CONTROL TEAM				
Ed Darrimon	Quality Control Manager	From NTP- Throughout Project	0% Design- 100% Construction	Rob Wilson

Orion/Harris Team Member Full Resumes

Please see Appendix A.

Section 5: Technical Approach and Design Concept

The project provides for concrete repair and protective coatings for the Flocculation and Sedimentation Basins 1 and 2 at the City of San Diego Otay Water Treatment Plant. Specific areas to be coated also include valves, piping, supports, plates, and strips including the two movable bridges associated with each sedimentation basin.

As the design builder, we have engaged V&A Consulting for corrosion services. Their assigned corrosion engineer will be Manuel Najjar who will work with Harris and Associates in the review of the Specification Section 9810 to assure that it meets the current industry standard. After a site visit and review by Manuel a formal submittal will be made to the City Project Manager of any comments or revisions to the Section 9810. A second follow up review will be undertaken once plant operations can drain the basins and all submerged surfaces can be inspected, any modifications will be submitted for City approval. As surface preparation and coating work proceeds he will review daily progress reports from the QCM and CSI as well as the results from the coating material manufacturers' observations and site specific recommendations.

A. Water Treatment Plant System

A.1 Water Treatment Plant Flocculation and Sedimentation Basin

Based on our review the existing concrete basin surfaces appear to be coated have previously been coated with a HYDRO-POX 204 system. Surface preparation will be in accordance with Item A.4 below. The new coating will be a two component 100 percent solid, epoxy coating system which will comply with ANSI/NSF 61 Standard for contact with potable water and be suitable to coat over the existing system. Proposed system for concrete surfaces is as follows:

System No. 1:

Product:	HYDRO-POX 204 (NSF Approved) Epoxy
Finish Color:	Gray
Applied Thickness Over Concrete Surfaces:	40 mils DFT
Applied Thickness Over Steel Surfaces:	16 mils DFT
Primer:	Per manufacturer's recommendation
Manufacturer:	Con-Tech of California, 2211 Navy Drive, Stockton, CA

In addition the existing floor expansion joints in the basins will be cleaned out, removing the backer rod and sealant. This will be substantially completed prior to hydroblast and final sandblast. During final sandblast special attention will be taken to ensure that the edges of the joints are abrasively blasted to ensure that the new sealant has a clean porous surface to attach to. A new backer rod sized to prevent three-sided adhesion and provide control of the sealant depth will be installed. The expansion joints shall be sealed with Sika 1A which complies with the ANSI/NSF 61 Standard for contact with potable water.

Section 5: Technical Approach and Design Concept (cont'd)

A.2 Appurtenance Equipment, Valves, Piping, Metal Plates, and Strip

The existing coating surfaces of the submerged carbon steel components have previously been coated with a 100% solids epoxy. Surface preparation will be in accordance with Item A.4 below. The new coating will be a two component 100 percent solids, epoxy coating system which will comply with ANSI/NSF 61 Standard for contact with potable water. Proposed system for carbon steel that is immersed is as follows:

System No. 1:

Product:	HYDRO-POX 204 (NSF Approved) Epoxy
Finish Color:	Gray
Applied Thickness Over Concrete Surfaces:	40 mils DFT
Applied Thickness Over Steel Surfaces:	16 mils DFT
Primer:	Per manufacturer's recommendation
Manufacturer:	Con-Tech of California, 2211 Navy Drive, Stockton, CA

No Stainless Steel is to be coated.

A.3 Appurtenance Structures Cross Bridges and Columns

The steel moving bridge at each set of basins will be coated with the following system.

System No. 4 (for Moving Bridge):

Product (finish):	Series 750 Endura-Shield
Finish Color:	Blue
Applied Thickness Over Concrete Surfaces:	N/A
Applied Thickness Over Steel Surfaces:	2-5 mils
Primer and Intermediate Coat:	Series 135 Chembuild 135
Primer Color:	White
Applied Primer Thickness:	4-5 mils
Manufacturer:	Tnemec Co. Inc., 6800 Corporate Drive, Kansas City

A.4 Preparation of Surfaces to be coated for Restoration

Concrete

- a) Blisters in the existing coating system to be identified by Orion and the CSI and cut open.
- b) Power wash 3,000 psi to remove staining, debris, dirt, loose coating material.
- c) High-pressure water blast minimum and maximum nozzle pressures 6,000 psi and 10,000 psi to provide a final surface texture of the concrete substrate equal or better than 80 grit sand paper.
- d) Repair any large holes, voids, bug holes, and deteriorated surfaces. With a final step being vacuum cleaning immediately prior to coating application.

Section 5: Technical Approach and Design Concept (cont'd)

- e) Existing coating that has adhered to concrete will be roughened by sand blasting, inspected and certified by the manufacturer (Contech) as suitable for re-coating.

Carbon Steel

All steel substrates to be abrasive blasted will have all welds inspected to ensure that they are free of pinholes, undercutting fins, weld splatter, or sharp edges. The requirements of NACE RP -0178 fabrication details, surface finish and design consideration for immersion service application guidelines will be utilized. All defects or variations noted will be submitted to the City's CSI for review and direction as to corrective action.

- a) All grease, oil, and other detrimental contaminants will be removed by solvent cleaning in accordance with SSPC-SP1.
- b) All carbon steel surfaces that are fully immersed during service will be abrasive blasted to the requirements of SSPC SP10 "near white metal" blast, and will have a profile of 2.0 mils minimum, 3.5 mils maximum and have a uniform anchor pattern.
- c) At the completion of all abrasive blast operations and before the first application of coatings a Hold Point will be established and work will not proceed until the surface cleanliness and profile has been determined by the CSI to be in conformance with contract specification.

A.5 Quality Assurance/Quality Control Plan (QA/QC Plan)

A QA/QC plan will be specifically developed for this project and it will comply with the City's guidelines. The goal of the QC plan is to provide a road map to assure that the application work process produces a usable finished product that satisfies the specified objectives of the project. Orion's Project Manager and onsite Superintendent in cooperation with our Quality Control Manager (QCM) will be thoroughly familiar with all the stated requirements and understand the specific quality objectives so that they can be implemented ensuring that the engineering, design, and service life expectations of the protective coating materials will be met or exceeded. In this way quality can be filtered down into the work process and to the craft worker levels to be integrated into the finished product.

The Orion/Harris team QCM has been designated as Ed Darrimon, he will be issued with a letter of authority and reporting functions with a copy provided to the City PM for approval. He will be onsite full time and at a minimum he will be experienced in the operation and have instrumentation available onsite as follows:

- Wet film and dry film thickness gauges
- Calibration 10 standards
- Sling psychrometer
- Psychrometric charts
- Surface thermometer
- Low voltage wet sponge holiday detector
- High voltage holiday detector
- Testex replica tape
- Micrometer

A formal written program will be submitted to the City for approval prior to start of work.

Section 5: Technical Approach and Design Concept (cont'd)

Highlights of the plan and QCM responsibilities be at a minimum as follows:

1. The QCM is responsible for daily examination of the compressed air supply in accordance with ASTM D 4285 to determine that the air is free from detrimental amounts of water, and is free from any visually observable amount of oil.
2. The QCM is responsible for daily examination of each nozzle operator's work production so that it meets Specification requirements in terms of profile and surface cleanliness.
3. The QCM is responsible for examination of abrasive blasted surfaces, so that adjacent previously primed areas have not been damaged by overblast, or that these damaged areas have been repaired in accordance with approved procedures.

Quality Control of Coatings Operations as follows:

1. The QCM is qualified and experienced in the use of a sling psychrometer and psychrometric tables to determine that the temperature of the surfaces designated to receive protective coatings is not less than 5° F above the dew point of the ambient air. Determination of the dew point and surface temperature will be made immediately prior to commencement of any coating work.
2. The QCM will examine all surfaces to be coated prior to application to insure that these surfaces are clean, dry, and free from dust or other contaminants.
3. The QCM will insure that the application crew understands how to use wet film gauges in coatings application, and that each painter is furnished with, and does use a wet film gauge in work process. The QCM will also take wet film thickness readings during application of each coating to ensure the applications meet Specification requirements.
4. The QCM will determine that each coat has satisfied the manufacturer's minimum re-coat times, prior to application of the succeeding coat. Maximum re-coat times will not be exceeded since additional surface preparation maybe required. The City's CSI or Resident Engineer shall be notified if or when the maximum re-coat window is exceeded.
5. The QCM will determine that the coating dry film thickness (DFT) test is in accordance with the Specification requirements. Areas testing below the minimum specified DFT will be repaired by adding sufficient material to conform to Specification requirements. Repairs will follow manufacturer's re-coat times closely and will be accomplished prior to the final forced cure.
6. The QCM will determine that the final coating is free from pinholes, blisters, dry spray, or other surface defects prior to the final forced cure. Appropriate re-work or repairs will be required.
7. The QCM will determine that the applied coating is holiday free prior to force cure by testing with a 67 ½ volt DC (80,000 ohm resistance) wet sponge Holiday Detector in accordance with NACE Standard RP-0188 on steel substrates. Holiday detection by testing with high voltage equipment will be required on concrete substrates. The coating shall be 100% holiday free. Any defects detected shall be marked with chalk and repaired by removing the coating at the spot down to the depth of the defect with a grinding or deburring tip, feather edging the exposed area by sanding, and applying two coats of the applicable coating material. Repairs shall then be tested for holidays as above, when dry.

Section 5: Technical Approach and Design Concept (cont'd)

A.6 Best Management Practices

- a) All non-hazardous construction debris to be cleaned up at the completion of each days' work and secured in an onsite dumpster with a fixed closable lid.
- b) Spent abrasive media will be staged onsite in a designated area in sealed containers to prevent any fugitive material being blown around and removed offsite no less than weekly in accordance with the project hazardous materials handling plan.
- c) Wash water from hydroblast operations will be pumped into segmented steel holding tanks to separate out solid debris for separate disposal with the effluent water trucked offsite for disposal.
- d) All paint, solvents, and chemicals to be stored onsite to be in a designated area in full conformance with State requirements for secondary containment and warning signs.

A.7 Environmental Testing, Monitoring and Mitigation including Handling of Hazardous/Contaminated Materials

HANDLING OF HAZARDOUS/CONTAMINATED MATERIALS

- a) Prior to work starting the Environmental Manager will submit to the City and the Safety Coordinator a list identifying solvents, detergents, buffers, cleaners, emulsions, and all other materials utilized onsite including manufacturer's information on safe handling and MSDS data sheets.
- b) Disposal of used solvents, thinners, coating components, and other related material will be the Orion/Harris team's responsibility. The QCM will ensure that all waste paints and solvents are disposed of in 55 gallon drums in accordance with applicable City, County, State, and Federal regulations.
- c) Spent abrasive blast media and debris could potentially be considered a hazardous substance by the State. We will analyze this material to determine its hazardous status in conformance with current State standards. The material will be removed offsite at a minimum on a weekly basis and we take full responsibility for its removal, haulage, and safe disposal. This will be accomplished in conformance with State of California, Department of Health Services regulation.

A.8 Corrosion Protection

By engaging V&A Consulting as our Corrosion Engineer and making available to them the resources needed to field review existing coating systems, intended applications, and the well developed Specification Section 9810 in the RFP we can guarantee that the project corrosion design will exceed industry standards. The experience Harris brings as the D/B Engineer of Record and as the Construction Manager for the City on the recently completed Otay plant expansion enhances their insight into City design protocol, and ensures a complete and comprehensive set of deliverables to the City.

B. Proposed Design Schedule

As the project schedule is developed into its work break down structure we recognize the importance of the critical input from the Otay Plant Superintendent as a major stakeholder. Maintaining ongoing uninterrupted plant operations will be paramount. During this stage of development we will capture in detail all of the milestones in design, procurement of materials and field inspections. Special attention will be focused on cooperation with the City's designated Coatings Specialist Inspector (CSI) and the "Hold Points" established for the surface preparation,

Section 5: Technical Approach and Design Concept (cont'd)

concrete repair, and coatings application for this project.

Please refer to Appendix B for our fully integrated Design-Build CPM progress schedule. The design elements and proposed dates included in this schedule are as follows:

- August 2, 2012 (42 calendar days from NTP): Submit 100% design (coating and concrete repair specification)
- August 30, 2012 (70 calendar days from NTP): City approval of 100% design
- September 14, 2012 (84 calendar days from NTP): Submit product data for selected coating and concrete repair materials
- October 12, 2012 (112 calendar days from NTP): City approval of product data

Please note that we are proposing going directly to 100% design followed by material product data submittal and approval. We do not expect the need for 30/60/90/final design submittals, since the design work will only consist of review and possible revisions to the Section 09810 Coating and Concrete Repair specification.

Section 6: Construction Plan

The construction plan for this design-build project is based on the Orion/Harris team's complete understanding of the project goals and our knowledge and our experience working on the design and construction of water treatment plant upgrades. Our team is well aware of the complexities and challenges of this design-build construction project. To address the level of effort involved in the design-build process, the Orion/Harris team will complete a detailed work breakdown structure that will be integrated into the final critical path schedule. The work breakdown structure will include responsibilities so that the entire team knows the relationships of the project tasks and the potential for delays if the work is not completed in a timely manner.

Orion will operate as the Design Builder, accepting full responsibility for the overall design and construction quality, cost, and schedule. The single point of contact for the city staff will be Rob Wilson. To properly manage this design-build project, Orion will maintain control of the schedule and procurement, as described below. An aggressive quality assurance/quality control program will be followed in all phases of design, construction, and activation of the flocculation basins and sedimentation basins.

All communications will either be routed through Rob or he will be "carbon copied" on all major communications between team members, this will allow Rob to monitor the progress of each construction task within the project and keep the project and take the necessary steps to stay on schedule.

Project management for construction begins with the establishment of project accounting, scheduling, procurement, submittal, and other field engineering systems. This work will be accomplished both on site and in the administration office.

Project Waste Recycling

In accordance with the City's and the Orion/Harris team's commitment to sustainable design and maximizing the reduction and recycling of construction waste, the project will be in full conformance with the City's 2008 Construction and Demolition Ordinance.

A.1 Construction Approach and Methods

The project will be logistically supported from our fully staffed construction yards in North County and in Metropolitan San Diego. A field office trailer will be maintained onsite to keep project documentation and as-builts onsite.

Our full time Project Superintendent Eugene Gay, responsible for the overall construction will be onsite daily and will be responsible for all construction activities. The project will also be staffed by an experienced full time Environmental Manager to ensure environmental and safety standards are enforced at all times.

A.2 Plan for Operation of Facility during Construction

The Orion team will coordinate our work schedule with the construction manager and plant superintendent based on the operational supply demands and shutdowns of the plant. Pursuant to Attachment A, Section 1.7, the City will be responsible for taking the basins out of service, including electrical lockout and tag-out for the basins, pumps, motors, and associated equipment. Once the City shuts down a set of basins, the coating and concrete repair work can commence. The

Section 6: Construction Plan (cont'd)

work will be sequenced so that one set of basins remains in service at all times so that the facility continues to operate and treat water without interruption.

A.3 Plan for Phasing of Construction Activities

As shown on the DB progress schedule (Appendix B), the construction work will be split into two major phases. Each phase will include one set of basins (high speed flocculation, low speed flocculation, and sedimentation) and the corresponding steel moving bridge. Each phase will include the following work elements:

1. Drain, de-water, and lock-out/tag-out the basins (by City).
2. Install scaffolding with truss work and shrink wrap for containment of the basins and the traveling bridge.
3. Power wash all concrete and metal surfaces to remove all existing staining, debris, dirt, loose coating material and other surface contamination.
4. Sandblast (or high pressure water blast) to condition concrete substrates and metal surfaces to receive protective coatings.
5. Apply prime coat to metal surfaces immediately after completion of sandblast.
6. After sandblasting, inspect and test concrete surfaces to determine extent of concrete repair required.
7. Repair identified concrete surfaces using the specified Sitka cement mortar repair products.
8. Cure the repaired concrete surfaces for a sufficient period of time prior to coating.
9. Coat the concrete surfaces and all submerged carbon steel surfaces with a 100% solids epoxy coating system.
10. Inspect and test all applied coatings for conformance with the approved specifications.
11. Remove the scaffolding and shrink wrap containment system.
12. Fill the basins and place back into service (by City).

The work for each phase is estimated to take 74 workdays (about 15 weeks).

The total contract time is 260 workdays (about 52 weeks). Pursuant to Section 8.0 of the RFP, the Notice to Proceed date has been set at June 21, 2012. Design and other pre-construction activities are estimated to take about 16 weeks. Mobilization to the job site for construction is scheduled for mid-October 2012, with work on the first set of basins to start in early November 2012. The first set of basins is scheduled to be completed by late February 2013, with work on the second set to start thereafter and to be completed in June 2013.

Please see Construction Schedule in Appendix B.

A.4 General Plan for Functional Testing and Start Up

As noted in the RFP, shutdown and start-up of the flocculation and sedimentation basin equipment will be performed by City forces. Orion crews will coordinate with City crews for these operations, and if requested will provide physical assistance at the direction of the City plant superintendent. During the course of the coating and concrete repair work, our Quality Control Manager (QCM) will be continually inspecting and testing the operations of the coating and repair crews. Our QCM will be capable of calibrating and properly using an array of testing equipment, including wet film and dry film thickness gauges, sling psychrometer, surface thermometer, holiday detectors, and other required test equipment. In addition, the City will be providing a third party Coating Specialist

Section 6: Construction Plan (cont'd)

Inspector (CSI) who will be on site to verify compliance with the specifications. The CSI will conduct several "Hold Point Inspections" at key times during the work progression. Hold points will be established for the surface preparation, concrete repair, and coatings application for this project. Our QCM and the City's CSI will fully document all inspections and tests and will provide written reports, which will be submitted, to the City during and at the conclusion of each phase. These controls will ensure that the applied coatings are fully tested and in compliance with the approved coating specifications.

A.5 Proposed Safety Program

The Orion/Harris team will prepare a written site-specific Safety Plan/Illness and Injury Prevention Program for submission to the City prior to start of construction. Our Safety Plan will include all applicable requirements of CAL/OSHA. Our Safety Manager will consult with our Superintendent to define the scope and sequence of work, and to then develop specific Job Task Analyses (JTA's) to identify the sequence of events, associated hazards, and implement control measures.

At a minimum the site specific plan will encompass the following key elements:

1. As the design builder, Orion will take all necessary precautions for the safety of employees on the work site, and shall comply with all applicable plant, federal, state, and municipal safety laws and codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed. We will ensure that all Subcontractors are familiar with the Company's safety programs and shall be familiar with the requirements of SSPC-PA Guide 3, "A Guide to Safety in Paint Application". In addition, the Contractor shall comply with the following items.
2. Erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workmen and public, and shall post "Danger Sandblast and Painting Operations" signs to warn against the hazards created by the construction.
3. Designate a responsible member of its organization at the work site as a Safety Coordinator, whose duty shall be the prevention of accidents. The name and position of the person so designated shall be reported to the City Resident Engineer 15 days prior to initiation of the Project.
4. Provide and maintain on the job site location a complete set of Manufacturer Safety Data Sheets (MSDS) for all materials brought on to the site. Additionally, a full set of these Specifications, including all codes, standards, and references shall be available on the project site through the duration of the work.
5. All pressure vessels, such as sand hoppers and compressed air volume tanks shall be protected from over-pressurization with automatic pressure relieving devices.
6. At all times, the work site and adjacent premises shall be kept free from accumulation of waste materials or rubbish caused by Orion employees or work process, and at the completion of the work, Orion will remove all waste from around the job site. All tools and surplus materials will be removed, leaving the premises in a neat and orderly condition.
7. Provide and install sufficient scaffolding and staging to provide easy access during surface preparation, coating application and inspection of all surfaces. The rigging structure shall be constructed so that the workers will have free use of body and arms, and shall comply with all applicable OSHA requirements.
8. Examine thoroughly, all scaffolding and lighting equipment and accessories for their safe

Section 6: Construction Plan (cont'd)

and usable condition. Frayed, loose and other defective equipment shall be replaced with new and safe apparatus.

9. A safe area shall be established and clearly identified for handling and storage of all flammable materials and for waste disposal. No source of ignition shall be permitted within the safe area at any time. Proper signs shall be posted.

Additionally, all of our project managers, engineers, superintendents, foremen and crew leaders receive regular training in all aspects of safety such as fall prevention, scaffolding, hazardous materials, trench protection, confined space entry and other areas appropriate to our industry.

During the course of construction, we will constantly be monitoring the effectiveness of the JTA's and will modify them and/or write new JTA's as necessary to ensure that a safe work environment is necessary to ensure that a safe work environment is maintained. Our Construction Manager will conduct weekly Planning/Scheduling Meetings with all supervisors on the project to review the safety strategies, identify all possible hazards, and coordinate interaction between the various activities and crafts. The discussions at these meetings will be documented in writing. In addition, we will conduct informal meetings at the beginning of each day with supervisors and workers to discuss safety issues related to that day's work.

We will ensure that personal protective equipment is available to all workers and is used properly. As a minimum, we require the use of high visibility safety vest; ANSI approved hard hats, safety glasses with side shields, and footwear appropriate to the construction activity.

Every new employee that comes to the jobsite receives safety orientation and training prior to starting work. Apprentices receive special attention because of their relative unfamiliarity with the overall construction process. Additionally, all new employees wear a hardhat with a distinctively colored band for the first month identifying them as new to the jobsite. We have found from this practice that long-term employees are much more willing to assist new employees in the safety practices of the company. We also designate a key craft worker on the job as a "safety monitor" responsible for assuring safe working conditions. This individual is empowered to correct any deficiencies in work practices immediately as the conditions are identified.

The Orion/Harris team understands and shares the goals articulated in the City Safety Program, namely:

- Pursue Error free Performance
- Aim for Zero Incidents
- Achieve True "World Class" Safety Performance

A.6 Proposed Emergency Response Plan

Orion Construction will create a chain of communications between the City, subcontractors, utility agencies, and other related public entities for after-hours communications in the event of an emergency. Orion Construction will work with the City to develop a specific emergency response plan tailored for this project.

Prior to the start of construction, Orion will develop and submit to the City, for review and approval, a written Emergency Response Plan. Orion will observe and comply with the City's

Section 6: Construction Plan (cont'd)

policy of zero hazardous material spills. The Emergency Response Plan shall be developed to respond to any construction related spill(s). This plan will include but not limited to:

- Identify all nearby environmentally sensitive areas such as waterways, channels, catch basins and entrances to existing underground storm drains and adjacent water plant facilities.
- Making arrangements for an emergency response unit, stationed at or near the job site, comprised of emergency response equipment and trained personnel to be immediately dispatched in the event of spill(s). This could also include field biologists and/or archaeologists if in an environmentally sensitive area such as a canyon.
- Developing an emergency notification procedure, this includes an emergency response team with telephone numbers and arrangements for backup personnel and equipment. The emergency response unit shall be able to dispatch to the site 24 hours a day 7 days a week including weekends and holidays. Orion will designate primary and secondary representatives, their respective phone numbers, pager numbers, and mobile phone numbers. Orion's representatives will be accessible and available at all times to respond immediately to any sewer spill event.

A.7 Proposed Construction Schedule

Orion will be utilizing the latest version of Primavera Project Management Software to further develop and update the schedule as follows:

- The schedule takes into consideration any City design reviews.
- Comprehensive Work Breakdown Structure into logical jobsite activities
- Implement interface procedures to communication between Orion computer network scheduling software and City network scheduling software
- Activity network for submittal to the City for review and concurrence
- Orion will furnish activity status and network updates on disc formatted for interface with city scheduling software.

The development will be accomplished in a minimum of three steps:

- Development of work breakdown structure by Orion and submittal to the City for review and comment.
- Orion will develop interface procedure to communicate from Orion computer network to City computer network.
- Final step being Orion activity network submitted to the City for review and approval.

The project CPM schedule will serve as a baseline schedule from which work progress will be measured. Included in the construction plan that identifies all Project Milestones set forth in this RFP, as well as all critical activities, Orion anticipates performing and coordinating with others to complete the Project prior to the Final Completion Date. The schedule has a final completion date 260 working days from NTP. The final design phases are shown as well as the City review and approval times of 4 weeks for each phase. Included in the 100% design phase is the City plan check review.

Please see Appendix B for the Design and Construction Schedule.

Section 6: Construction Plan (cont'd)

A.8 Traffic Control Management

With the work being performed in an operating treatment plant special attention will be focused on delivery of material and equipment for both the project and the City.

A.9 Community Impact

We anticipate no community impact resulting from this project. All proposed construction activities will be phased and schedule to minimize impacts to ongoing water treatment operations.

Section 7: Equal Employment and Contracting Opportunity

Work Force Report

Please see Appendix C for Orion's Work Force Report.

Subcontractor Documentation

Please see Appendix D for a listing of subcontractors, design professionals, and vendors that we propose to use for this project. As a local company, Orion supports the goals of the City's SLBE program to increase participation of SLBE and ELBE firms in City contracting. We have regularly used many of the subcontractors and vendors on the City's List of Certified SLBE/ELBE's and will continue to do so as opportunities arise. In addition, we will encourage other qualified local small businesses to become certified in the City program. We believe that the City SLBE program can be a powerful asset to promote equal opportunity for all segments of the contracting community.

The bid form includes a "City Contingency" allowance in the amount of \$60,000.00, which is included in the total contract price. Since the allowance amount is not available for subcontracting opportunities, we have deducted this amount from the total contract price before calculating the percentages for the listed subcontractors and vendors. Based on these calculations we have computed the following percentages for participation.

In accordance with Section 2.3 of the RFP, We have exceeded the mandatory and voluntary goals for subcontracting participation in this project as follows:

	GOAL	Actual
Mandatory SLBE-ELBE Subcontracting	10%	45.16%
Voluntary Additional Subcontracting	10%	1.37%
Mandatory & Voluntary Total Subcontracting	20%	46.53%

Also, in accordance with RFP, Attachment B, Item 8, we have attained the following percentages of subcontractor and vendor participation for SLBE/ELBE/DVBE/DBE:

Wedgeco Inc. DBA Hydrodynamics (ELBE)	<u>45.16%</u>
TOTAL	45.16%

The percentage exceeds the 25% participation level required for award of 25 points under this factor.

Equal Employment Opportunity Plan

Please see Appendix E for Orion's EEO Plan.

Section 8: Reference Checks

References for Orion Construction are as follows:

Federal ID: 33-0339762

License: 549309 A, B, C-27, HAZMAT Cert

Dun & Bradstreet: 60-796-0929

Bonding Company: Safeco Insurance Company of America
330 N. Brand Blvd., 10th Floor
Glendale, CA 91203

Through: Willis Risk & Insurance Services
4250 Executive Square, Suite 200
La Jolla, CA 92037
Contact Erik Johansson
Phone: (858) 678-2000

Bank References: Citibank (West), FSB
740 S. Rancho Santa Fe Rd.
San Marcos, CA 92078
Contact: Dee Moncrief
Phone: (760) 727-4801

Trade References: Hanson Aggregates, Inc.
9229 Harris Plant Road
San Diego, CA 92145
(858) 277-5481 Phone
(925) 244-6525 Fax
Credit Department

Robertson's Ready Mix
P.O. Box 3600
Corona, CA 92878
(800) 834-7557 Phone
(951) 493-6426 Fax
Credit Department

J. Cloud, Inc.
2094 Willow Glen Drive
El Cajon, CA 92019
(619) 593-9020 Phone
(619) 593-6403 Fax
Credit Department

Section 8: Reference Checks (cont'd)

Recent Project
References:

City of San Diego—Field Engineering Division
Contact: Anh Nguyen (619) 533-7413
Nariman Khomamizadeh (858) 627-3286
Samir Abuqaoud (619) 980-9868
Luis Schaar (619) 533-5242

U.S. Navy
ROICC Camp Pendleton
Reservoir Lining
Contact: Jacob Wittler (760) 725-0785

City of Carlsbad
Contact: Patrick Vaughan (760) 602-2780
Joe McMann (760) 602-2780

Irvine Ranch Water District
Contact: Richard Mori (949) 453-5571

Grossmont Union High School District
Contact: Janea Quirk (619) 644-8149

Appendix A

Orion/Harris Team Member Full Resumes

PROFESSIONAL EXPERIENCE

**ORION CONSTRUCTION CORPORATION
DIRECTOR OF DESIGN/BUILD/CHIEF ESTIMATOR**

NOV 1998 – PRESENT

- ◆ Responsible for the preparation of Design-Build proposals and post-award planning and implementation of design-build policies and procedures. Representative D/B projects.
 - \$5.2 Million P-113 Brine Pipeline, MCB Camp Pendleton, CA
 - \$5.2 Million Old Rose Canyon Trunk Sewer Relocation Project, City of San Diego, CA
 - \$5.4 Million Water Group 790, City of San Diego, CA
 - \$1.7 Million Rehabilitation of Reservoir 20813, MCB Camp Pendleton, CA
- ◆ Responsible for preparation of detailed estimating for bidding on public works construction projects. This includes sewer and water pumping stations, water and wastewater treatment plants, underground utilities, and water storage facilities. Clients include the City of San Diego, Otay Water District, Padre Dam Municipal Water District, Sweetwater Authority, and many other public entities.

**C. E. WYLIE CONSTRUCTION CO., SAN DIEGO, CA
PROJECT MANAGER/ESTIMATOR**

FEB 1993 – OCT 1998

- ◆ Responsible for managing ongoing contracts for a general and engineering contractor. Also responsible for preparation of detailed mechanical estimates for sewer and water treatment facilities.
 - \$16.3 Million Rancho Penasquitos Trunk Sewer Relief/Pump Station, San Diego, CA
 - \$10.0 Million Infrastructure Phase II, California State University, San Marcos, CA
 - \$3.0 Million Carlton Hills Reservoir, Padre Dam Municipal Water District, Santee, CA

**CAL SOUTHWEST CONSTRUCTION INC.
PROJECT MANAGER**

NOV 1988 – JAN 1993

- ◆ Responsible for managing ongoing contracts for a general and engineering contractor, and for preparation of detailed estimates for bidding. Projects included Sewage and Water Pump Stations, Wastewater Treatment Plants, Water Storage Facilities, Underground Utilities, and Groundwater Remediation Systems.

COMMERCIAL BUILDERS AND CONTRACTORS, INC.

JAN 1988 – OCT 1988

- ◆ Responsible for managing ongoing contracts for a general and engineering contractor, and estimating.

**CROWN CONTRACTING, INC.
VICE PRESIDENT**

NOV 1981 – DEC 1987

- ◆ Responsible for managing ongoing contracts for a mechanical contracting company, and estimating. Also responsible for major equipment purchases and sub-contract negotiations. The primary focus of the company was military and government construction as a prime contractor. Projects managed and estimated included major wastewater, steam distribution, boiler and cogeneration plants, pier utilities, and fuel distribution projects. Clients included the US Navy, Army Corps of Engineers, City of San Diego, and San Diego State University. Value of contracts ranged from \$100,000 to \$4 million.

**ROICC SAN DIEGO AREA AND PT. MUGU/PORT HUENEME
SUPERVISORY CIVIL ENGINEER**

APRIL 1977 – JAN 1981

- ◆ Administrated over 100 contracts worth more than \$80 million, the largest being \$24 million. These contracts involved major electrical and mechanical utility work, waterfront construction, sewage treatment facilities, new industrial, recreational, medical, educational, and warehouse facilities.

**ROICC CAMP PENDLETON, CA
CIVIL ENGINEER**

APRIL 1975 – APRIL 1977

- ◆ Assisted in the administration of over 30 contracts, including construction of new barracks, dental facilities, water distribution systems, and sewage treatment plants.

**PROFESSIONAL DEVELOPMENT PROGRAM OF THE NAVAL FACILITIES ENGINEERING
COMMAND
CIVIL ENGINEER**

JULY 1973 – APRIL 1975

- ◆ Participated in a two year internship program, rotating through a variety of jobs in Washington, D. C., San Bruno, CA, and Camp Pendleton, CA. Assignments included construction management, civil and structural design, cost estimating, and

specification writing.

EDUCATION

Design Build

- Principals of Design-Build Project Delivery, 2009, Design-Build Institute of America (DBIA)
- Avoiding Unintended Economic Consequences of Poorly Planned Growth on Water and Sewer Service, 2009, American Society of Civil Engineers (ASCE)

Construction Safety

- OSHA 30 Construction Course, 2009, Click Safety
- Trenching & Shoring / Competent Person, 2009, Pacific Safety Council
- Hazwoper 40 Hour, 2009, Safety Trainer Online
- Fall Protection, 2009, presented by National Environmental Trainers
- C2 CAL HAZCOM, 2009, Click Safety
- Confined Space, 2006, Orion Construction
- Adult/Pediatric CPR, 2009, Cuyamaca College
- C1 CAL IIPP, 2009, Click Safety
- G2 CAL/OSHA Heat Illness R2, 2009, Click Safety

Quality Control

- Quality Management in the Design Organization, 2009, ASCE
- NAVFAC Contractor Quality Management (CQM) 2009, NAVFAC
- Fundamentals of CQC, 2009, American General Contractor's Association/NAVFAC

Anti-Terrorism Standards

- CFATS Chemical Facility Anti Terrorism Standards, 2009, ASIS International

Sustainability

- Introduction to Green Design, 2009, ASCE
- Green Building Basics and LEED Course, 2009, U.S. Green Building Council
- LEED Core Concepts and Strategies Workshop, 2009, U.S. Green Building Council

B. S. in Civil Engineering, 1973

Union College, Schenectady, New York

PROFESSIONAL EXPERIENCE**ORION CONSTRUCTION CORPORATION****OCT 2003 – PRESENT**

PROJECT MANAGER: Manages construction operations from rough grading to structural concrete. Provides direct management and oversight in the installation of mechanical and buried pipe systems, installation and operation of water and sewer pumps, and all related process equipment.

Current Projects:

- ◆ **NAVFAC Southwest – Replace 16" Potable Water NAS North Island**
Work includes removal and installation of a new 16" 4,200 LF watermain on Quentin Roosevelt and McCain Blvd including removal of existing 12" and 16" AC pipe. The existing system service is maintained during installation until the new pipeline is tested and chlorinated with final tie-ins accomplished by line stops.
- ◆ **NAVFAC Southwest – Design-Build Repair Watermain, Cummings Rd NAVAL Base San Diego**
The D/B repair of 3,000 LF of 10" potable watermain by a slip lining method with cured in place NSF approved liner. The existing system is highlined and service maintained during replacement and repairs. Scope included final pressure test, disinfection, and pre and post CCTV of the system as repairs proceeded.
- ◆ **NAVFAC Southwest – Design-Build Advanced Water Treatment Plant P-113**
Installation of 56,000 LF of 14" HDPE water/brineline from the newly constructed plant to the Oceanside Harbor diffuser along Vandergrift Blvd. Installation by conventional open cut trench excavation and trenchless methods used for crossing North County Transit District Railroad and Oceanside Harbor Tank pads.

Work is being accomplished with alternating day and night shifts to accommodate Base traffic flows with two mainline installation, pipe appurtenant and paving crews. A separate traffic control crew lead by a foreman is onsite at all times maintaining up to 1 mile of traffic lane diversion supporting aggressive pipeline installation schedules. The pipeline is hydrostatically tested in 5,000 LF section with final chlorination prior to pump station and reservoir connections.

Recent Projects:

- ◆ **City of San Diego – Miramar Water Pipeline Corrosion Inspection**
The dewatering and inspection of 33,000 LF of 54" and 66" diameter watermain for the City of San Diego, scope included constructing new pipeline access manways, dewatering and dechlorinating pipeline and rechlorinating pipeline in segments as it was placed back in service.
- ◆ **City of San Diego – Design-Build Water Group 790**
 - Project is 100% complete removing and replacing deteriorating cast iron and ACP waterlines-a total of 30,000 L.F.
 - Service laterals, fire hydrants, new ADA compliant handicap ramps with final slurry seal, and trench cap.
 - Developed existing service highline plan, purchased and implemented system hydrostatically testing and chlorinating to City health standards.
 - During course of construction, consistently informed home owners and other community stakeholders of the project schedule and impacts utilizing public meetings, written notices, and verbal communications.
- ◆ **City of San Diego – Water and Sewer Group 684A**
 - Removal and replacement of 20,000 L.F. old deteriorating clay cast iron and ACP sewer and waterlines located in the metropolitan areas of San Diego.
 - Existing waterlines were highlined and service maintained to customers during replacement
 - The sewage system was bypassed and diverted one section at a time, allowing for timely replacement with a zero spill policy
 - Trenchless methods used to minimize impacts to the public and environment
- ◆ **NAVFAC Southwest – Design-Build Replace Steam and Condensate Piping MCRD**
Replace 1,200 LF of 6" to 12" steam and condensate buried piping, scope included demolition of all existing piping provision of temporary steam/condensate lines to provide work stop page at MCRD buildings. Upgrade pipe, valve, pumps, and tanks at mechanical pump room.
 - Project received overall outstanding CCASS Rating and a Safety Star Award
- ◆ **NAVFAC Southwest – Design-Build Repair Natural Gas Distribution System Phase 1, 2, & 3**
Basewide upgrade of natural gas system both the mainline distribution system, primarily in paved roadways and airfield areas. The scope included the installation of 42,000 LF of new gasline and of the testing and commissioning system to the end users. Following installation, the existing system was purged with nitrogen and abandoned in place.
- ◆ **Irvine Ranch Water District – Design-Build Harvard Avenue Sewer & Pump Station**
 - Design-Build and installation of 1,200 lineal feet of 42" polycrrete sewer pipe utilizing microtunnel trenchless method
 - Construction of a 46 foot deep buried reinforced concrete pump station and diversion structure, requiring extensive dewatering and shoring.

◆ **Grossmont Union High School District – Wet Utilities at Five High Schools**

- Replacement of underground utilities at high school campuses, including sewer, water, storm drain, and natural gas piping, sizes from 6" to 24", 120,000 LF total.
- Surface restoration, including asphalt paving, concrete hardscape, landscaping, retaining walls, metal guard rails, and ADA ramps.
- All work was accomplished on a fast track basis during summer recess, utilizing multiple crews with extensive overtime.

◆ **City of San Diego – Sewer Pump Station 19**

- Complete Sewer Pump Station Rehab of existing station
- Includes new cast in place concrete pump station and colored architectural concrete beach face access and public stair way
- Installed all new electrical and process equipment including new emergency generator and jib cranes.

EDUCATION

- AGC Construction Management
- AGC Advanced SWPPP
- OSHA 30 Construction Course, 2009, Click Safety
- Trenching & Shoring / Competent Person, 2009, Pacific Safety Council
- Hazwoper 40 Hour, 2009, Safety Trainer Online
- Fall Protection, 2009, presented by National Environmental Trainers
- C2 CAL HAZCOM, 2009, Click Safety
- Confined Space, 2006, Orion Construction
- Adult/Pediatric CPR, 2009, Cuyamaca College
- C1 CAL IIPP, 2009, Click Safety
- G2 CAL/OSHA Heat Illness R2, 2009, Click Safety
- Fundamentals of CQC, 2009, American General Contractor's Association/NAVFAC

Mesa College – Construction Management Certificate Program, Subcontractor Management, Advanced Plan Reading and Construction Trade Practices.

Grossmont College – Auto Cad Program, Beginning and Advanced, Beginning Architecture and Engineering Courses.

Granite Hill High School – General Education

PROFESSIONAL EXPERIENCE**ORION CONSTRUCTION CORPORATION****APRIL 2011 – PRESENT**

PROJECT MANAGER: Manages construction operations from rough grading to structural concrete. Provides direct management and oversight in the installation of mechanical and buried pipe systems, installation and operation of water and sewer pumps, and all related process equipment.

Recent Projects:

- ◆ **City of San Diego – Water Group 3013 Replacement** **\$2,096,473**
 This group job is broken-up into 4 separate water group jobs: Group 764, 764A, 821 and 821 A. This project is located in the Point Loma Area of San Diego.
 The project is comprised of:
 - Approx. 11,000 Linear feet of 8" C-900 water pipe.
 - Approx. 2,000 Linear feet of 12" C-900 water pipe
 - 300 + new 1" water services
 - Concrete Restoration
 - New Curb Ramps to Current ADA Standards at Various locations
 - 500,000 + square feet of Slurry Seal of existing Streets
 - Cold Milling and Ac overlay of Multiple Streets within the Project boundaries.
- ◆ **City of San Diego – Design-Build Water Group 790** **\$5,397,000**
 - Assumed responsibilities from Jason Danks as Project Manager at the 70% completion stage.
 - Project is 80% complete removing and replacing deteriorating cast iron and ACP waterlines-a total of 30,000 L.F. replaced to date.
 - Service laterals, fire hydrants, new ADA compliant handicap ramps with final slurry seal, and trench cap.
 - Developed existing service highline plan, purchased and implemented system hydrostatically testing and chlorinating to City health standards.
 - During course of construction, consistently informed home owners and other community stakeholders of the project schedule and impacts utilizing public meetings, written notices, and verbal communications.
- ◆ **City of San Diego – Design-Build Water Group Job 921** **\$2,337,000**
 - Design phase constructability

BRH GARVER WEST, INC.**2003 – APRIL 2011****PROJECT MANAGER / ESTIMATOR:**

- ◆ In Charge of Contract Administration, Project Set-up, Sub-Contractor Coordination and Invoicing Review, Progress Billing, Administrative Change Orders and Negotiations and Project Close-Out
- ◆ Prepare Material Take-offs, Baseline Schedules, Look-a-Head Schedules
- ◆ Negotiate Buy-Outs, Material Procurement and Sub-contractor final Quotations
- ◆ Responsible for Development and Implementation of an Excel based Purchase Order (PO) tracking system to manage and provide real time forecasting of Job Cost in real time on multi-million dollar projects
- ◆ Assemble, Direct and Submit Project Estimates as the Lead Estimator in both the Private and Public Works Sector for General Engineering Projects ranging in value from under 1 million to 24 million

NIELSEN DILLINGHAM BUILDERS, INC.**1996 – 2003****PROJECT MANAGER:**

- ◆ **Alvarado Water Filtration Plant, Upgrade and Expansion Phase 1 for the City of San Diego Capitol Improvements (Project value 55 million)**
 - Coordinated project Checkout, Start-up Testing and Commissioning of Plant Equipment and their Systems
 - Led a group which took care of project Quality Control of all Piping installations
 - Oversaw the Delivery and Acceptance of Equipment
 - Insured the completion of Jobsite Photography and Progress Documentation
 - Coordination of Plant personnel Training, Operations and Maintenance Manual
- ◆ **Point Loma Wastewater Treatment Plant Central Boiler Facility and Gallery Upgrades for the City of San Diego Metropolitan Wastewater District (Project value 13.6 Million)**
 - Involved with project from Estimating, Construction, Project Close-out and Warranty

ARRIETA CONSTRUCTION, INC.

1993 – 1996

PROJECT MANAGER:

◆ **Senior Estimator / Estimator / Foreman**

- Estimated Pipeline Projects in the San Diego Area
- Assembled Estimates, Solicited WBE, DVBE and MBE sub-contractors for upcoming projects
- In charge of Project Field Operations, Equipment Utilization and Logistics
- Ran a Production Pipeline Crew installing infrastructure pipeline

EDUCATION

- Cal OSHA 10-Hour Training
- Cal OSHA Competent Person
- Cal OSHA Certified Cranes & Rigging
- Cal OSHA Confined Space Certified
- CAL OSHA 40 Hour Training
- CPR Certified
- SWPPP QSD Trained

San Diego State University – Construction Management Practices

Grossmont Community College – Associates Degree

AWARDS:

- Managed City of San Diego Water and Sewer Group 539 project value 3.2 Million (2003 Premier Partner Award Winner) San Diego Center City Development Corporation
- Managed Eastern Municipal Water District San Jacinto Valley Interceptor Sewer project value 14.5 million (Project Award Winner) and Featured on the cover of California Builder & Engineer Magazine 12/17/07

PROFESSIONAL EXPERIENCE

ORION CONSTRUCTION CORPORATION
ENVIRONMENTAL MANAGER

AUG 2010 – PRESENT

- ◆ Responsible for managing biological and archaeological monitoring activities on construction sites.
- ◆ In charge of native plant propagation for landscape restoration – plant salvaging, seed collection, stratification and growing.
- ◆ Director for company-wide environmental compliance
- ◆ Prepared site specific Water Pollution Control Documents and Storm Water Pollution Prevention Plans in accordance with 2009-0009-DWQ Construction general permit
- ◆ Responsible for implementation of storm water BMPs and erosion control
- ◆ Stormwater inspections of active construction sites
- ◆ Responsible for sampling stormwater run-off and coordinating laboratory testing
- ◆ Conducted environmental protection and awareness training to employees and subcontractors

RINCON CONSULTANTS
BIOLOGICAL MONITOR/ENVIRONMENTAL COMPLIANCE INSPECTOR

JUN 2010 – AUG 2010

- Nesting bird surveys
- Environmental document preparation
- Stormwater pollution plan development

CITY OF SALINAS – WASTEWATER DEPARTMENT
ENVIRONMENTAL COMPLIANCE INSPECTOR II

SEPT 2008 – JUN 2009

- ◆ Local business education regarding environmental protection of riparian and estuarine systems
- ◆ Developed storm water inspection forms for compliance with local/state regulations
- ◆ Conducted over 415 commercial business storm water compliance inspections
- ◆ Inter-agency Coordination including: Monterey County Air Pollution Control Board, Monterey Regional Water Pollution Control Agency and Monterey County Health Department
- ◆ Conducted onsite training for business owners and employees about best management practices, storm water pollution, erosion and vector control.

ORANGE COUNTY WATER DISTRICT- ORGANIC/INORGANIC DEPT.
LABORATORY INTERN

DEC 2007-APR 2008

- ◆ Conducted odor, color, and pH tests of drinking water, storm water, and groundwater
- ◆ Prepared standard reagents for inorganic and organic laboratory sections
- ◆ Cleaned, sterilized, and prepped glassware in the laboratory using chemical washers, autoclaves, and high-temperature laboratory ovens

OCEAN AND CLIMATE GROUP UCI
LABORATORY ASSISTANT

JAN 2007-AUG 2007

- ◆ Laboratory assistant for undergraduate environmental science courses.
- ◆ Maintenance of laboratory equipment.
- ◆ Trained graduate students on the operation of environmental science equipment.

EDUCATION

- B.S. University of California Irvine – June, 2008
- M.S. Environmental Management University of San Francisco – December, 2010
Specialization- Ecology

PROFESSIONAL CERTIFICATES

- Certified Storm Water Inspector: National Storm Water Center - November 2008
- Certified Environmental Compliance Inspector: CWEA - January 2009
- PC-832 Certified - January 2009
- OSHA 30 Hour Construction Safety
- HAZWOPER 40 hour
- Military EM-385-1-1 40 Hour Safety

Javier Saunders, PE

Design Manager

Education

BS, Civil Engineering

Registration

Civil Engineer, CA

Mr. Saunders has 25 years of experience leading and managing projects for public agencies. Mr. Saunders has managed and successfully completed over \$400 million in Public Work Construction contracts. Prior to joining Harris & Associates, Mr. Saunders served as the Assistant Director of Engineering Design for the Port of San Diego, overseeing and managing a design staff of over 20 professional and sub-professionals. Mr. Saunders also spent 16 years with the City of San Diego Water and Wastewater Department managing such notable projects as the City of San Diego Expansion of the Otay Water Filtration Plant, construction of the 23-million gallons per day (MGD) Alvarado Reservoirs, Pump Station, and various trenchless technology projects including jack and bore projects. Over his career, Mr. Saunders handled all aspects of large and small water and wastewater facilities including the construction of over 40 miles of pipelines and numerous pump stations.

Mr. Saunders was the project manager for the expansion of the City of San Diego's largest Pump Station, Metro Pump Station No. 2. The expansion of the pump station increased capacity from 340 MGD to 420 MGD. The project was under a tough court mandated deadline for completion. In order to meet this deadline, the long lead equipment, pumps and valves, were pre-purchased. In addition key equipment such as the diesel powered gas engines were pre-qualified to minimize potential delays. The project included upgrades of the electric power system, new SCADA controls, motor controls, and a new operations room. The project was completed one week prior to the court-mandated deadline. The success of the project was due to the understanding of the critical items, pro-active management, and the full team's commitment to address all RFI's, submittals, and changes in an expeditious manner. In addition, weekly CM meetings addressed critical items and mandated the contractor provide a weekly update of the "look ahead schedule." The project received numerous local awards, including ASCE Outstanding Project Award and ACEC Engineering Excellence Award.

City of San Diego, Design-Build Group Job 790 Water Replacement Project. Harris is providing the design of nearly 4.5 miles of water pipeline replacements up to 12-inches in diameter under the design-build project delivery method for the City of San Diego. The scope of services includes the assessment and design of over 100 curb ramps for ADA Compliance, preparation of Traffic Control Plans, public outreach, and coordinating with the City in maintaining water and fire service to the area. Mr. Saunders is providing program-level oversight to ensure that overall objectives are met in accordance with regional needs and professional standards of the industry and firm.

Otay Water District Value Engineering Study. Harris & Associates in partnership with the District conducted an extensive Value Engineering Study on the proposed Otay Mesa Recycled Water System. The collaboration resulted in over 38 suggested ideas of which 17 were ranked highly desirable and further developed. Value Engineering team recommended the delivery of recycled water from the 944 Pressure Zone in- lieu of construction of the 860 Pump Station and 450-2 reservoir. Overall this recommendation will provide a \$ 3.5 M in capital savings. Mr. Saunders was the Project Manager for Harris and provided computer modeling oversight.

City of San Diego Sewer Replacement Program. Oversaw and directed a design staff of 25 professionals and sub-professionals in the design and construction of water and wastewater projects that included an annual sewer replacement program that averaged the construction of approximately three (3) miles per year of old deteriorating sewer mains. Projects were located throughout the City in various difficult locations such as within sensitive environmental habitat, undersized easements or no easements, and congested traffic areas. Worked with community groups and environmental groups to reach cost effective solutions.

City of San Diego Middletown Trunk Sewer. Senior Engineer for the first microtunnel project in San Diego that used clay pipe as a direct burial jacked pipe and only the third in the United States. The local American Society of Civil



Engineers recognized the project and received a Merit Award in the category of Water Supply and Waste Disposal. The project was published in the May 1995 Civil Engineering publication.

Expansion of Metro Pump Station No 2. Project Manger for the expansion of the City's largest sewage pump station. The expansion provided the ability to pump up to 420 million gallons a day (MGD) exceeding the original planned built out of 340 MGD. The \$14 million expansion also provided surge protection to the twin 87-inch forcemains by incorporation of gas powered engine drives. The project and team received a National Honor Award in the 1995 Engineering Excellence Award Competition.

City of San Diego East Mission Gorge Pump Station and Force Main. Project Manager for the 40 million gallon per day pump station and 8 miles of 48-inch forcemain. The project included screening, odor control facilities, surge control, and masonry enclosed structure. Construction cost \$24 million. This project was also designed to accommodate future conversion to a reclaimed water pump station and distribution main from the East County.

Mission Bay Sewer Pump Stations, 11,14, and 16. Project manger for the reconstruction of three sewage lift stations along South Mission Bay. In order to protect view sheds and in response to community input the project team built the facilities mostly underground. These were the first underground sewer pump stations for the City and have set the standards for future undergrounding. Public Art was successfully incorporated on top of Pump Station 11.

City of San Diego Mission Bay Channel Forcemain. This project utilized two trenchless technologies, horizontal directional drilling and cured in place in-version lining. The selection of these advanced technologies reduced environmental and social impacts associated with replacement of the old deteriorated forcemain across the sensitive Mission Bay Channel and San Diego River. It also resulted in time savings, permit process, and approximately \$1.5 million over the conventional dredge method.

City of San Diego Point Loma Wastewater Treatment Plant Expansion. Oversaw and managed the preparation of a hydraulic Master Plan for the Metropolitan Sewage Treatment Plant. Identified hydraulic restrictions and increased plant capacity from a peak flow of 365 million gallons per day (MGD) to 420 MGD. Projects include modifications to the effluent channel, surge protection at Metro Pump station #2, and enlargement of influent channel.

City of Coronado, Margarita Avenue Sewer and Roadway Rehabilitation. Project Director for the design of ½ miles of Margarita Avenue. The street is lined with mature large canary island pine trees which the residents love. The project replaced 1200 L.F. of VCP sewer with PVC sewer main. The project was designed with gutter plates and root barriers to slow future root growth. The root intrusion contributed to the severe sewer main damage, pavement alligator and transverse cracking. Harris consulted with experts in the arborist field and found a chance to save trees by doing the work when the trees are dormant and employing a program of selective pruning and root training. We prepared construction documents that required the contractor to have an arborist on staff and to cover the exposed roots with wet soil overnight. Our services included conducting a geotechnical investigation, field survey field review arborist review and community meetings. We also prepared PS&E for the pavement rehabilitation and sewer replacement.

City of San Diego, On-Call Construction Management and Inspection Services. Project Manager. As-needed CM & insp. for the City of San Diego Field Div. on 3 projects: Black Mtn. Ranch Recycled Water Steel Storage Tank. Provided specialty insp. for the Black Mtn. Ranch Recycled Water Steel Storage Tank and Pump Station 27. The 3 million gallon steel tank provides recycled water to the Black Mtn. Ranch, & Carmel Valley areas of the City. The 83 foot radius tank was fabricated off site and assembled on site. Early completion of submittals, grading, reservoir piping, & tank fabrication were critical items to complete the project on time. Provided welding, concrete, & rebar insp. for the tank, along with piping, concrete, & masonry insp. for the Sodium Hypochlorite generating system building.



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Wastewater

Water

Transit Industry

Forensic & Legal

V&A...⁹

V&A people are really committed. They respond quickly and thoroughly and always meet our special requests.

We rely on V&A for flow monitoring. They are strong specialists. Kevin Krajewski is an absolute asset to the District. He understands what we're doing and why we're doing it.

Bonnie Middleton
Associate Engineer
Castro Valley Sanitary District

Home : Services

V&A provides a wide range of corrosion, coatings, and condition assessment engineering services in the water, wastewater, and transit industries.

Corrosion Engineering Services

V&A's Corrosion offerings include:

- Corrosion surveys
- Close interval surveys
- Material selection for various exposures
- Design of galvanic and impressed current cathodic protection systems
- Corrosion monitoring

Exposures that are commonly encountered include atmospheric, immersed and buried.

Coating Systems Management Services

V&A completed the evaluation, design, repair and inspection of the application of various coating and lining systems for a variety of facilities. V&A's approach includes contact with the vendors of the coating systems and their certified applicators. From experience we have found that unless there is a distinct linkage between the vendor of the coating or lining system and the applicator, a clear line of responsibility is difficult to establish, and the project cannot proceed efficiently and cost-effectively.

Condition Assessment Services

V&A's engineers perform condition assessments of coated or uncoated steel and concrete structures within municipal civil infrastructure facilities and/or collection systems, and they provide recommendations and design services for the rehabilitation or replacement of these structures.

Typical structures include:

- Gravity and pressure pipelines
- Manholes and junction structures
- Siphons
- Pump stations
- Storm drainage facilities
- Corrosion control systems
- Storage tanks
- Odor control facilities

V&A uses recent improvements in flow monitoring technology, allowing for greater accuracy and remote monitoring capabilities for real-time data collection for:

- Master planning efforts
- Meter calibration
- Sewer capacity studies with hydraulic modeling

Additional services include third-party inspection, hydrogen sulfide studies, and smoke testing of sanitary sewers and storm drains.



Manuel Najjar, P.E.

Coatings Practice Leader

Education

B.S., Chemical Engineering,
University of California-Berkeley,
2002

Registration

Chemical Engineer, CA (CH6184)

Joined V&A

2002 (Full-Time)

2001 (Summer Intern)

Total Years of Experience

10 years

Training and Certifications

- ◆ National Association of Corrosion Engineers (NACE) Coatings Inspector Level 2 – Certified
- ◆ National Association of Corrosion Engineers (NACE) Coatings Inspector Level 1 – Certified
- ◆ Society for Protective Coatings (SSPC) Fundamentals of Protective Coatings for Industrial Structures – C1
- ◆ Society for Protective Coatings (SSPC) Specifying and Managing Protective Coatings – C2
- ◆ National Association of Sewer Service Companies (NASSCO) Pipe and Manhole Assessment Certification (U-207-4333)
- ◆ Basic CPR/First Aid
- ◆ Confined Space Entry-Certified

Publications and Presentations

- ◆ "Top Six Requirements for Specifications," CoatingsPro, 2011
- ◆ "Top Six Requirements of a Successful Coating Specification," CoatingsPro, 2007
- ◆ "Corrosion Control Measures for Reclaimed Water – A Case Study," CA-NV AWWA, 2006

Experience Summary

With more than 10 years of coatings experience, Manuel has been involved with the condition assessment of coating and lining systems for metal and concrete structures including digesters, pipelines, tanks, and other appurtenances for water and wastewater facilities. He is a registered California chemical engineer and a NACE Level 2 Coatings Inspector. Manuel has been involved with plant-wide coating systems management plans and preparation of standard coating design specifications for multiple municipalities.

Relevant Project Experience

- Zone 7 Water Agency, Livermore, CA – Project Engineer. V&A prepared a design and provided construction management support for the recoating of the Del Valle Water Treatment Plant 4.5 MG steel tank and a 3 MG concrete clearwell. Provided an overview of the design for the upgrade of the existing cathodic protection system on the welded steel tank. Reviewed all submittals, requests for information and answered technical questions during construction.
- West Basin Municipal Water District Reclaimed Water Facility, El Segundo, CA – Project Engineer. Conducted a coating failure analysis of a 100% solids polyurethane that was used to line two 50,000 gallon concrete clear wells. Provided coating specification for a new lining system for the clearwells during a 5 week shutdown.
- City of Fernley Raw Water Storage Tank, NV – Project Engineer. Reviewed contractor coating submittals, requests for information, and shop QA/QC reports. Provided full time onsite inspection for the application of the interior and exterior coating systems on a new 1 million gallon welded steel ground storage tank.
- City of Sunnyvale Wright Avenue Tank Assessment and Coating Design, CA – Project Engineer. Conducted corrosion assessments to determine the condition of two 5 MG water storage tanks and their coatings. Provided the coating specifications for the removal of the lead-based interior paint and the application of a new epoxy system.
- City of Millbrae Water Tank Assessment and Coating Design, CA – Project Engineer. Conducted a site assessment for four water tanks ranging in size from 0.10MG to 1.0MG. Developed plans, specifications, and estimated costs for each tank rehabilitation design.
- City of Palo Alto Assessment and Coating Design for Tanks, CA – Project Engineer. Completed a condition assessment and coatings specifications for six potable water tanks and three receiving stations. The assessment provided results of the coating and corrosion observations, existing coating heavy metal analysis, and recommendations for recoating of the tanks. Developed plans, specifications, and estimated costs for each tank rehabilitation design.

Resume of Bruce Lewis

Professional Summary

Site Safety Health Manager / Certified Construction Quality Manager (CQM) NAVFAC / Project Leader/ Engineer Technician / Quality Assurance/ Construction Inspection / Quality Control Manager with Seven Plus years of Government Public Works and ROICC construction Project management and Safety Regulation Compliance Experience / SSHO duties and oversight.

Twenty years of Construction / Plumbing. (Ten years Licensed C-36 Plumbing Contractor). Owner B.K.O. Plumbing, New Construction, Remodels, Repairs.

Professional Experience:

ARB, Inc.

February 2011 – April 2011

- **Site Safety Manager.**
- Imperial Irrigation District, El Centro, Repower Project, to increase from 44 mega watts to 144 mega watts. Project in the 40 Million Dollar Range.

Marcon Engineering Inc.

June 2010 – February 2011

- **Superintendent /SSHO, and Quality Control Manager.**
- Projects in the 15 Million Dollar Range.

Parsons, NAVFAC SW contract.

September 2009 – June 2010

- **ROICC Engineer Technician, September 2009 – June 2010**
- ROICC Camp Pendleton & 29 Palms, Resident Officer In charge of Construction Contracts (ROICC).
- **Duties and Responsibilities:**
Construction Compliance Inspections of Contractors performing construction work for the Federal Government under the requirements of EM 385 -1-1, USACE Safety

and Health Requirements Manual to ensure that contractor's and SSHO operations are in compliance with all related safety, health, and environmental requirements in conjunction with the Assurance of Construction Quality Control Management and Operational Quality of the contract requirements. Prepare Government Q.A. reports/ O.A Plans ensuring critical DFOW's are covered. **Projects to \$20 (twenty) Million**

- Safety compliance:
- Review/accept Accident Prevention Plan (APP)
- Review/accept Activity Hazard Analysis (AHA)
- Assure Contractor complies with safety requirements (EM 385-1-1) & (OSHA)
- Review attendance of Tool box safety meetings
- Mishap investigations and reporting
- Crane safety compliance with P-307
- Review/accept critical lift plan
- Witness/monitor critical lifts
- Review/accept Q.C. Plans
- Attend Q.C. meetings
- Attend production meetings
- Monitor Preparatory and Initial Phases (review checklists)
- Job site visits/inspections
- Review test results
- Environmental compliance
- Labor law compliance
- Coordinate contractor access into secure area
- HVAC, TABS, DALTS, controls
- Roofing
- Concrete, masonry, stucco
- Structural steel, welding
- Vertical transportation equipment
- Fire Protection equipment
- Road / Asphalt Reconstruction & maintenance

**Aerotek, contract, Camp Pendleton, Marine Corps Air Station, Public Works Dept.
May 2003-September 2009**

- **Contracts Quality Assurance Manager / Project Leader / QA**
- Manage Facilities, Support Contracts (FSC) for the Public Works Dept. Camp Pendleton, Marine Corps Air Station.
- Project Leader / Engineer Technician / Quality Assurance / Construction Inspection, Design Build, Design Bid Build, IDIQ and O & M. **Numerous projects to \$2 (two) Million**
- Contract Surveillance, Field inspects work performed by various government contractors Invoice Verification.

- Contract Development, Write and develop statement of work (SOW) for various government construction, remodel, and repair projects.
- Estimating of Government IDIQ contracts.
- Tracking, Issuing, and assigning work orders to various contractors thru Maximo.
- Interact with ROICC, FSC, FMD personnel as a Liaison for MCAS PWD. Familiar with the EM 385 -1-1, USACE Safety and Health Requirements Manual to ensure that contractor's operations and his SSHO are in compliance with all related safety, health, and environmental requirements. Also familiar with: Uniform Building, Plumbing, Uniform Mechanical Code and National Electrical Code to ensure contractors are in compliance with applicable Building Codes. Assist in reviewing, assessing and resolving complex and diverse construction problems.

Riopelle Development Company, Oceanside, Ca.

November 2001 – April 2003

Electrician, Plumber, Industrial / Commercial Remodeling Medical Facilities Installation of Medical Equipment MRI and CT units.

Various Electrical Contractors, Construction etc.

November 2001-2000

- Electrician. Rough/Finish.

Tri-J Industries, Quality Control Manager

2000-1994

- Multi Trade Federal contracts.
- Performing inspections of various multi trade task orders on Navy Facilities, Port Hueneme Navy Base/ Pont Mugu.
- Inspect work to make sure to all comply with all contract requirements.
- Complete Remodel & Renovation of Multi Family Housing Units.
- Projects in the 3 Million Dollar range.

Americko Inc.

1994-1993

- Licensed C-36 Plumbing contractor working under a government contract for this contractor.
- I preformed all type of plumbing work at Port Hueneme Navy Base, construction, repairs and remodeling.
- Location: Port Hueneme Navy Base.

Credentials, Education, Licenses and Certifications:

- Reseda High School Graduate.
- West Valley Trade School, H.V.A.C. Troubleshooting and Repair (Certificate).
- Licensed C- 36 Plumbing Contractor, (Ca. License #521053).
- ROICC, Camp Pendleton Training Academy, (Certificate).
- OSHA 10 Hour Course (Card)
- OSHA 30 Hour Course (Card)
- NAVFAC Operational Risk Management, (ORM) (Certificate).
- NAVFAC 40 Hour EM 385 1-1 Contract Safety Hazard Awareness Course, (Certificate).
- OICC MCI WEST, Scaffold Competent Person Course, (Certificate).
- OICC MCI WEST, Fall Protection Competent Person Course, (Certificate).
- OICC MCI WEST, Excavation and Trenching Competent Person Course, (Certificate).
- NAVFAC SW, (CQM) Construction Quality Management for Contractors (Certificate).
- PARSONS U Safety Training Courses (Total of 25 Courses)
- American Health Care Academy CPR/AED, First Aid.

Reference Check(s)

Candidate Name:	BRUCE LEWIS			
Applicant's Job Title:	SSHO			
Dates of Employment:	From:	02/01/2011	To:	04/29/2011
	Present:	No		
Reference Name:	Michael Seckington			
Company:	ARB	Reference's Job Title:	Construction Manager	
Phone:	(661)343-0953 (Work)	E-mail:		
Job Duties, Work Environment and/or Project Description:	Safety Manager - Industrial Construction building. Worked for us very last minute on building a power plant. He really did us a favor by coming in and helping us out. Our safety manager was pulled to another project and Bruce came in and saved us from having to shut down the project.			

Quality of Work:	Good, very knowledgeable.: Excellent
Quantity of Workload:	Did a great job for us.: Excellent
Ability (Technical and/or Non-Technical Skills/Level):	Very knowledgeable, knows his stuff.: Excellent
Initiative:	By just coming to the project he showed a lot of initiative. While on the job, he never had the chance to take initiative because we had him so busy.: Very Good
Cooperation/Communication:	Good, needed to speak up a little more as far as voice volume. Communication with superiors was great.: Good
Attendance/Reliability:	Outstanding!: Excellent
Appearance:	Appropriate
Strengths:	Knowledge of Cal / OSHA regulations.
Areas for Improvement:	He needs to be louder.

Would you consider the individual for rehire?	Yes
--	-----

Additional Information & Comments:	Great guy, I've called him a few times to fill in for us when we needed an alternate SSHO.
---	--

Completed By:	Completed Date:
----------------------	------------------------

Michael Book

12/16/2011



NAVAL FACILITIES ENGINEERING
COMMAND, SOUTHWEST
SAN DIEGO, CALIFORNIA

presents this certificate to

Bruce Lewis


who has successfully completed the

**NAVFAC 40 Hour Contract Safety
Hazard Awareness Course**

given at

Marine Core Base Camp Pendleton, California

2-6 Nov. 2009



Facilitator/Contract Safety Program Manager

6 Nov. 2009

Date



Certificate of Completion



OSHAcampus.com™

powered by 360training.com

This Certifies That

Bruce K Lewis

is awarded this certificate for

OSHA - 30 Hour Construction Industry Outreach Training Program

Credit Hours: 30

Completion Date: 03/26/2010 14:14 CST

Bruce K. Lewis

Student Signature

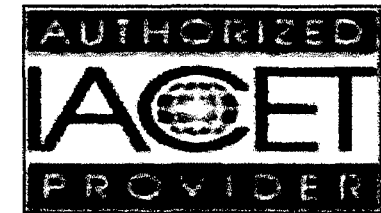
Michael Millsap

Michael Millsap, Trainer C 0034819 and G 0021414

360training.com, Inc. has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102; (703) 506-3275.

This certificate is proof of completion of your OSHA outreach course. In order to receive your official DOL card, you must complete the survey found in the end of course instructions. Your record must then be approved by your trainer and OSHA. Please allow 8-10 weeks for delivery.

360training.com ♦ 13801 North Mo pac, Suite 100 ♦ Austin, TX 78727 ♦ 888-360-TRNG ♦ www.360training.com





34-003219008 *

This card acknowledges that the recipient has successfully completed a
10-hour Occupational Safety and Health Training Course in
Construction Safety and Health

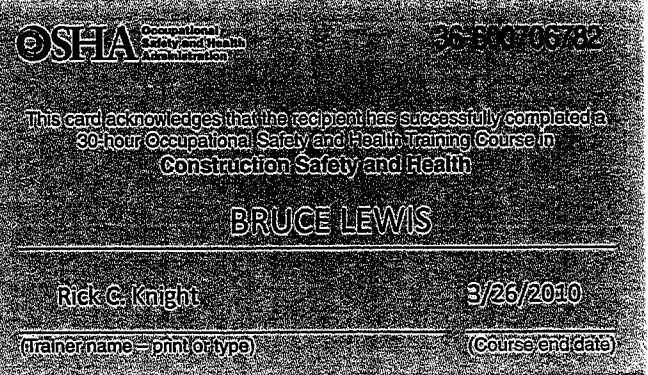
Bruce Lewis

A. Shomei

(Trainer name - print or type)

01/19/2010

(Course end date)



Certificate of Outstanding Achievement

BRUCE LEWIS

*In recognition of your successful completion of OICC MCI WEST Excavation and
Trenching Competent Person Course
April 6 – April 8, 2010
BRAVO ZULU.*



Joseph A. Campbell

**JOSEPH A. CAMPBELL
CAPT, CEC, USN
OFFICER IN CHARGE OF CONSTRUCTION MCIWEST**

Certificate of Outstanding Achievement

BRUCE LEWIS

*In recognition of your successful completion of OICC MCI WEST Scaffold
Competent Person Course
February 23 – February 25, 2010
BRAVO ZULU.*



Joseph A. Campbell

JOSEPH A. CAMPBELL
CAPT, CEC, USN
OFFICER IN CHARGE OF CONSTRUCTION MCIWEST

Certificate of Outstanding Achievement

BRUCE LEWIS

*In recognition of your successful completion of OICC MCI WEST Fall Protection
Competent Person Course
March 9 – March 11, 2010
BRAVO ZULU.*



Joseph A. Campbell

**JOSEPH A. CAMPBELL
CAPT, CEC, USN
OFFICER IN CHARGE OF CONSTRUCTION MCIWEST**

Certificate of Completion

Bruce Lewis

has completed the web-based training
course:

*NAVFAC Operational Risk
Management (ORM)
Training*

on

12/22/2009 12:55:55 PM

Score: 90%

Certificate ID:9454274

WHAT WE DO

Sandblasting

We use a wide variety of abrasive materials, including silica sands, copper slag, walnut shell and garnet. Abrasive blasting is used for coating removal, surface preparation, and lead abatement. Hydrodynamics employs only journeyman blasters to insure efficiency and thoroughness.

Hydroblasting

Hydrodynamics currently owns three hydroblast machines, ranging up to 40,000 psi. This surface preparation process is used for scale removal and heavy cleaning in the maritime industry as well as an alternative surface preparation and coating removal process. Hydrodynamics also offers rental services on our hydroblasters.

Industrial Coatings

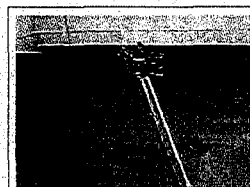
Over the years, and with close relationships with our suppliers, Hydrodynamics has developed the ability to both select and apply a very wide variety of industrial coating systems, ranging from NSF potable water storage tank liners to chemical-resistant secondary containment liners and corrosion control coatings. The products used range from high-solids and mastic epoxies, coal tar epoxies, urethanes, polyureas, industrial non-slip coating, various enamels, etc. With the support of years of experience and Hydrodynamics' wide variety of contacts throughout the industry, we are able to acquire and install almost any type of coating system requested by a customer. Only journeyman painters are used to assure the highest quality installation possible.

Equipment Rentals

Hydrodynamics also rents much of our equipment, including hydroblasters, dust collectors, industrial vacuums, a decom trailer, blowers, heaters, etc. Rental rates can be provided by our office.

OUR COMMITMENT

In over thirty years of contracting, Hydrodynamics has enjoyed its partnership with its customers and has always been committed to providing superior service through advanced field technology, strict regulatory compliance, on-going industry education and a protocol of "safety first" in all endeavors. The variety of industries serviced by Hydrodynamics continues to expand, including maritime, new and existing construction, power generation facilities, wastewater treatment facilities and public and private potable water storage tanks. If you would like some more information on the services Hydrodynamics provides, please feel free to contact Brice Westphall via email or telephone at (619) 236-8928.



Ship Hold Cleaning (2001)

- Contractor's License No. 300938
- Five Western States serviced
- All employees are Haz-Mat & Lead Awareness trained.
- Years of experience in surface preparation, lead abatement and coating makes Hydrodynamics an intelligent choice for any project.

Hydrodynamics Associated

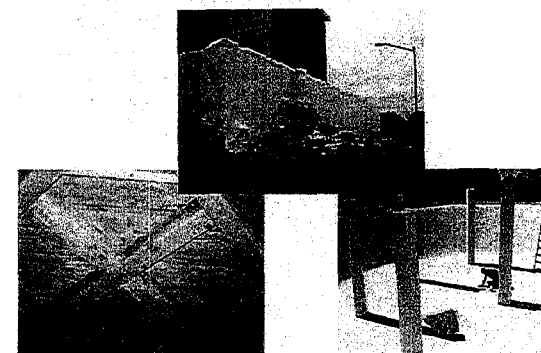
Serving Industry for Over 30 Years

2651 Commercial Street
San Diego, CA 92113

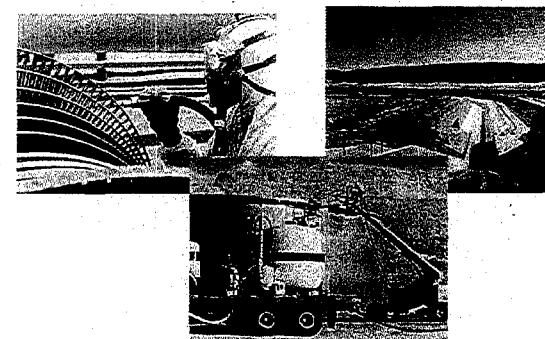
Phone: 619-236-8928
Fax: 619-239-6304

Email: wedgeco@sbcglobal.net

HYDRO DYNAMICS



SANDBLASTING HYDROBLASTING INDUSTRIAL COATINGS

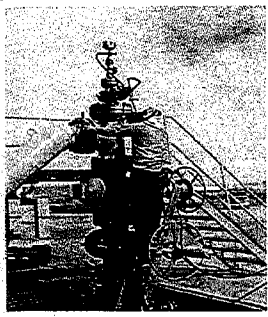


A California corporation,
providing surface
preparation and coating
services for over 30
years . . .

(619) 236-8928

ABOUT US

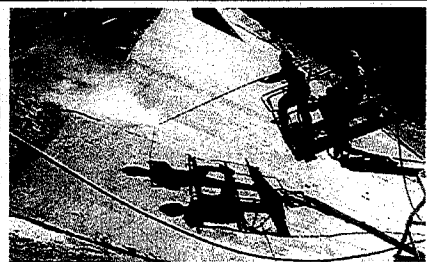
Hydrodynamics began operating in June 1971 and became a California corporation in June 1972. The demand for an advanced and highly-efficient cleaning process in the commercial and industrial markets quickly moved Hydrodynamics into the fields of pressure washing and hydro-blasting.



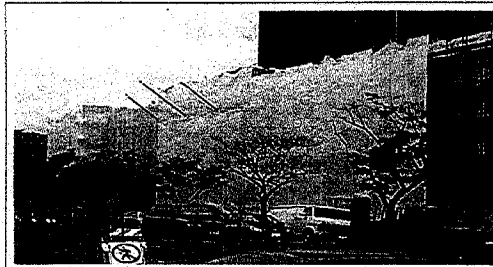
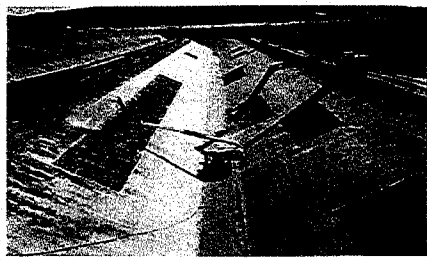
Abrasive blasting at a geothermal power plant (1990)

Hydrodynamics' quick success in hydroblasting soon launched the abrasive blasting operations of the company, allowing us to then provide surface preparation services

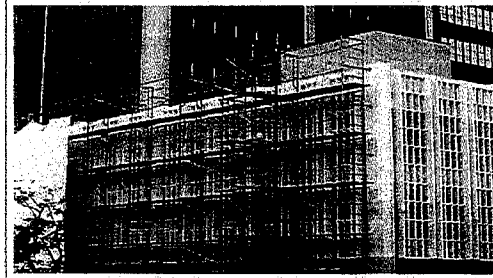
to more customers, coming from all fields, including the maritime and geothermal industries. As environmental protection became more and more of a concern in the sandblasting and surface preparation industry, Hydrodynamics began to purchase large dust management machines and industrial vacuums to ensure compliance with the



Hydroblasting at the California Aqueduct (1998)

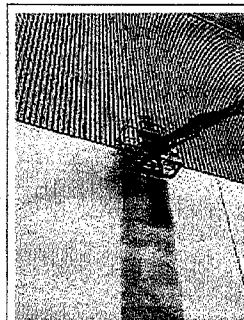


Fifth Avenue Financial Centre - Concrete Repair and Recoating of Concrete Panels on Parking Structure



various regulatory agencies in our area. These investments also opened the door for lead and asbestos abatement projects.

In the structural steel industry, Hydrodynamics quickly realized the value of being able to provide our customer with not only surface preparation services but selection and application of appropriate industrial coating systems. We only employ journeyman sandblasters and painters to ensure that the highest quality service possible is delivered to our customers.



BF Goodrich Aerospace Hydroblast & Recoat Various Buildings

As a California-Licensed specialty contractor (C61/D12, C61/D38, C33, HIC), Hydrodynamics has developed a full range of services related to standard and specialized hydroblasting, sandblasting for both structural steel and concrete, and coating application. Our talents in these fields have not only placed us a front-runner in the industry but have as well taken us all over Southern California and five western states on power-plant shutdowns, new construction sites, wastewater treatment facilities, fuel storage



Surface Preparation and Coating Interior of Flour Silos (1999)

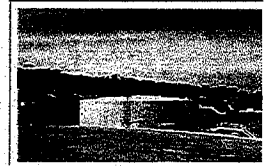
tank farm, nuclear energy facilities, bridge repainting, government lead abatement projects, freeway expansions, etc. Hydrodynamics has also completed work out of the country as far as the Philippines and into Mexico.

Hydrodynamics' involvement in such a variety of industries

requires that each of our employees receive regular safety training regarding all aspects of our work, including confined space, scaffold safety, climbing safety, fall protection, respiratory protection, personal protective equipment, lead awareness, hazard communication, hazardous material handling, etc.

SIGNIFICANT PROJECTS

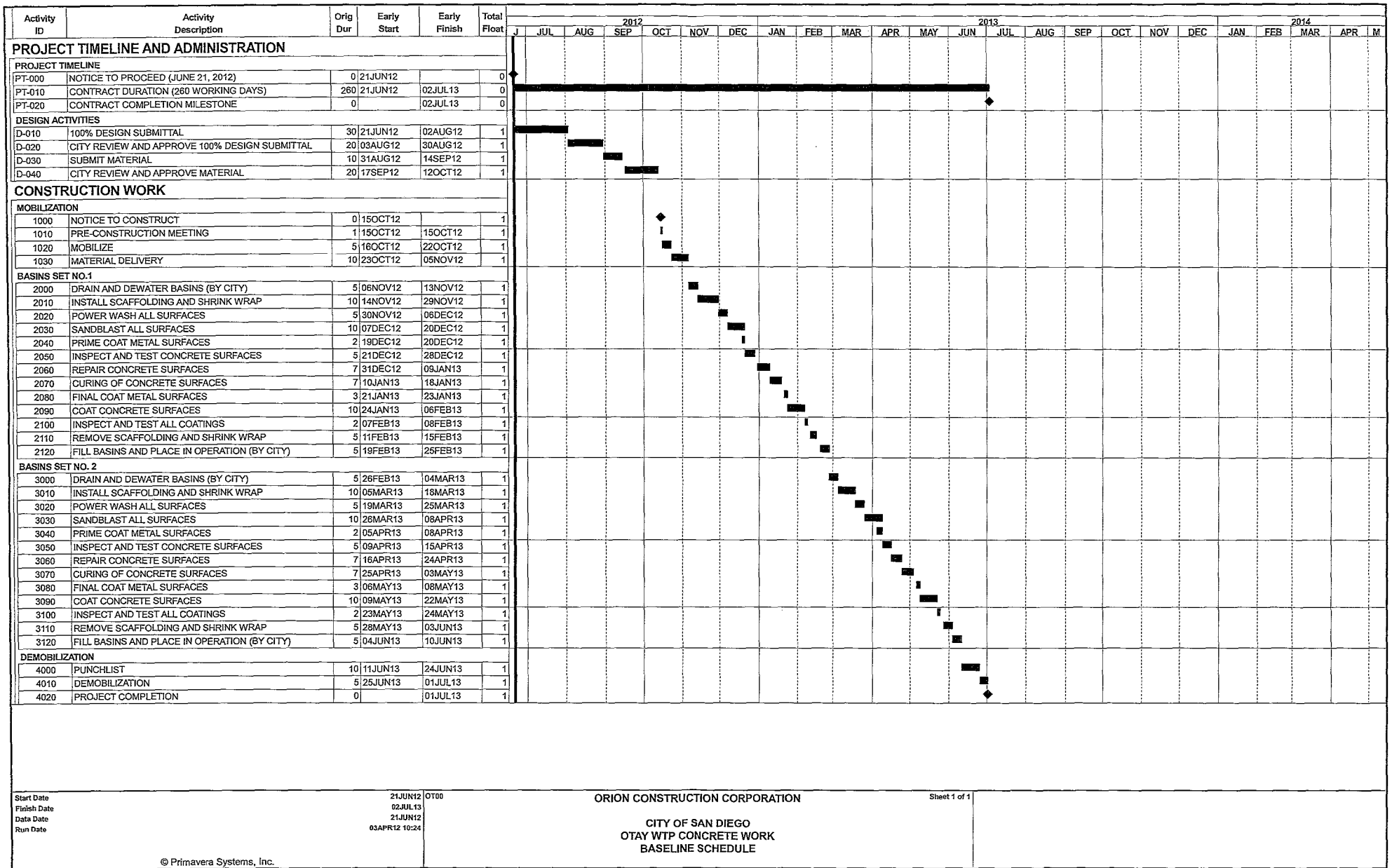
- Pt. Loma Wastewater Treatment Plant C1 & C2 Digester Upgrades
- Pt. Loma Wastewater Treatment Plant Sedimentation Basins Repair
- MCAS Miramar Hangar 2 Lead Abatement
- Fifth Avenue Financial Centre Concrete Panel Repair & Recoating
- City of Brawley Wastewater Treatment Plant Digester & Clarifier Repair & Recoating
- City of San Diego La Jolla Country Club Reservoir Rehabilitation
- City of San Diego Mt. Soledad Reservoir Rehabilitation
- National Forest Service Laguna Water System 4 Reservoir Rehabilitation
- California Aqueduct/All-American Canal Hydroblasting
- San Diego Convention Center Expansion Sandblasting
- Naval Submarine Base San Diego Fuel Farm Tank #42 & Tank #77
- Naval Submarine Base San Diego—Nuclear Submarine Support Facility Surface Preparation and Coating Interior Concrete Walls



Pt. Loma Submarine Base Fuel Tank Farm (2000)

Appendix B

Project Schedule



Start Date 21JUN12 OT00
 Finish Date 02JUL13
 Data Date 21JUN12
 Run Date 03APR12 10:24

ORION CONSTRUCTION CORPORATION

Sheet 1 of 1

CITY OF SAN DIEGO
 OTAY WTP CONCRETE WORK
 BASELINE SCHEDULE

Appendix C

Work Force Report

WORK FORCE REPORT – Page 2

NAME OF FIRM: Orion Construction Corporation

DATE: September 30, 2011.

INSTRUCTIONS: For each occupational category, indicate number of males and females in every ethnic group. Total columns in row provided. Sum of all totals should be equal to your total work force. Include all those employed by your company on either a full or part-time basis. The following groups are to be included in ethnic categories listed in columns below:

- (1) African-American, Black
- (2) Latino, Hispanic, Mexican-American, Puerto Rican
- (3) Asian, Pacific Islander
- (4) American Indian, Eskimo
- (5) Filipino
- (6) Caucasian
- (7) Other ethnicity; not falling into other groups

OCCUPATIONAL CATEGORY	(1) African-American		(2) Latino		(3) Asian		(4) American Indian		(5) Filipino		(6) Caucasian		(7) Other Ethnicities		
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	
Executive, Administrative, Managerial						1						2	1		
Professional Specialty															
Engineers/Architects					1							4	1		
Technicians and Related Support															
Sales															
Administrative Support/Clerical				1	1	2							2		
Services															
Precision Production, Craft and Repair															
Machine Operators, Assemblers, Inspectors															
Transportation and Material Moving	1		3									4			
Handlers, Equipment Cleaners, Helpers and Non-construction Laborers*												1			

*Construction laborers and other field employees are not to be included on this page

TOTALS EACH COLUMN	1		3	1	2	3						11	4		
--------------------	---	--	---	---	---	---	--	--	--	--	--	----	---	--	--

GRAND TOTAL ALL EMPLOYEES 25

INDICATE BY GENDER AND ETHNICITY THE NUMBER OF ABOVE EMPLOYEES WHO ARE DISABLED:

DISABLED															
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NON-PROFIT ORGANIZATIONS ONLY:

BOARD OF DIRECTORS															
VOLUNTEERS															
ARTISTS															

WORK FORCE REPORT – Page 3

NAME OF FIRM: Orion Construction Corporation

DATE: September 30, 2011

INSTRUCTIONS: For each occupational category, indicate number of males and females in every ethnic group. Total columns in row provided. Sum of all totals should be equal to your total work force. Include all those employed by your company on either a full or part-time basis. The following groups are to be included in ethnic categories listed in columns below:

- (1) African-American, Black
- (2) Latino, Hispanic, Mexican-American, Puerto Rican
- (3) Asian, Pacific Islander
- (4) American Indian, Eskimo
- (5) Filipino
- (6) Caucasian
- (7) Other ethnicity; not falling into other groups

OCCUPATIONAL CATEGORY	(1) African-American		(2) Latino		(3) Asian		(4) American Indian		(5) Filipino		(6) Caucasian		(7) Other Ethnicities	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
	Carpenter													
Drywall Installer														
Electrician														
Elevator Installers														
Finishers, Concrete or Terrazzo														
Glaziers														
Helpers, Construction Trade														
Ironworkers, Structural Metal Workers														
Laborers			16								3			
Millwrights														
Masons, Bricklayers			3											
Tile setters														
Operators			2				1				11			
Painters														
Pipe fitter, Plumbers											3			
Plasterers														
Roofers														
Security, Protective Services														
Sheet Metal, Duct Installers														
Welders, Cutters														

TOTALS EACH COLUMN			21				1				17			
--------------------	--	--	----	--	--	--	---	--	--	--	----	--	--	--

GRAND TOTAL ALL EMPLOYEES 39

INDICATE BY GENDER AND ETHNICITY THE NUMBER OF ABOVE EMPLOYEES WHO ARE DISABLED:

DISABLED														
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Appendix D

Subcontractor Documentation

BIDDING DOCUMENTS

DESIGN-BUILD LIST OF SUBCONTRACTORS TO BE INCLUDED IN THE (NON-PRICE) PROPOSAL ONLY

In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act", Division 2, Part 1, Chapter 4 of the Public Contract Code, the Design-Builder shall list below the name and address of each Subcontractor who will perform work, labor, render services or specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Design-Builder's total Bid. The Design-Builder shall also list below the portion of the work which will be done by each Subcontractor. The Design-Builder shall list only one Subcontractor for each portion of the Work. The **PERCENT VALUE** of the total Bid to be performed shall be stated for all Subcontractors listed. Failure to comply with this requirement shall result in the Bid being rejected as non-responsive and ineligible for award. The Design-Builder's attention is directed to the Special Provisions - General; Paragraph 2-3 Subcontracts, which stipulates the percent of the Work to be performed with the Design-Builder's own forces. The Design-Builder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors that Design-Builder are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

NAME ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR or DESIGNER	TYPE OF WORK	PERCENT VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB (1)	WHERE CERTIFIED (2)	CHECK IF JOINT VENTURE PARTNERSHIP
Harris & Associates 750 B Street, Suite 1800 San Diego, CA 92101 (619) 236-1778	DESIGNER	Principal Designer	1.37%	OBE		
Wedgeco Inc. DBA Hydrodynamics 2651 Commercial Street San Diego, CA 92113 (619) 236-8928	CONSTRUCTOR	Surface Preparation and Coatings	45.16%	ELBE	CITY	

- (1) As appropriate. Design-Builder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):
- | | | | |
|---|--------|--|---------|
| Certified Minority Business Enterprise | MBE | Certified Woman Business Enterprise | WBE |
| Certified Disadvantaged Business Enterprise | DBE | Certified Disabled Veteran Business Enterprise | DVBE |
| Other Business Enterprise | OBE | Emerging Local Business Enterprise | ELBE |
| Small Local Business Enterprise | SLBE | Small Disadvantaged Business | SDB |
| Woman-Owned Small Business | WoSB | HUBZone Business | HUBZone |
| Service-Disabled Veteran Owned Small Business | SDVOSB | | |
- (2) As appropriate. Design-Builder shall indicate if Subcontractor is certified by:
- | | | | |
|--|--------|---|----------|
| City of San Diego | CITY | State of California Department of Transportation | CALTRANS |
| California Public Utilities Commission | CPUC | San Diego Regional Minority Subcontractor Diversity Council | SRMSDC |
| State of California's Department of General Services | CADoGS | City of Los Angeles | LA |
| State of California | CA | U.S. Small Business Administration | SBA |

The Design-Builder will not receive any subcontracting participation percentages if the Design-Builder fails to submit the required proof of certification (except for OBE, SLBE, and ELBE)

BIDDING DOCUMENTS

DESIGN-BUILD NAMED EQUIPMENT/MATERIAL SUPPLIER LIST TO BE INCLUDED IN THE (NON-PRICE) PROPOSAL ONLY

The Design-Builder seeking the recognition of equipment, materials, or supplies obtained from Suppliers towards achieving any mandatory, voluntary, or both subcontracting participation percentages shall submit with the Bid the Named Equipment/Material Supplier List. The Named Equipment/Material Supplier List, at a minimum, shall have the name, locations (City) and the **PERCENT VALUE** of the Suppliers. The Design-Builder will be credited up to 60% of the amount to be paid to the Suppliers for such materials/supplies unless vendor manufactures or substantially alters materials/supplies in which case 100% will be credited. The Design-Builder shall indicate (Yes/No) whether listed firm is a supplier or manufacturer. In calculating the subcontractor participation percentages, vendors/suppliers will receive 60% credit of the listed **PERCENT VALUE**, whereas manufacturers will receive 100% credit. If no indication provided, listed firm will be credited at 60% of the listed **PERCENT VALUE** for purposes of calculating the subcontractor participation percentages, Suppliers will receive 60% credit of the listed **PERCENT VALUE**, whereas manufacturers will receive 100% credit. If no indication provided, listed firm will be credited at 60% of the listed **PERCENT VALUE** for purposes of calculating the subcontractor participation percentages.

NAME, ADDRESS AND TELEPHONE NUMBER OF VENDOR/SUPPLIER	MATERIALS OR SUPPLIES	PERCENT VALUE OF MATERIALS OR SUPPLIES	SUPPLIER (Yes/No)	MANUFACTURER (Yes/No)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WOSE, HUBZone, OR SDVOSB (1)	WHERE CERTIFIED (2)

- (1) As appropriate. Design-Builder shall identify Vendor/Supplier as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):
- | | | | |
|---|--------|--|---------|
| Certified Minority Business Enterprise | MBE | Certified Woman Business Enterprise | WBE |
| Certified Disadvantaged Business Enterprise | DBE | Certified Disabled Veteran Business Enterprise | DVBE |
| Other Business Enterprise | OBE | Emerging Local Business Enterprise | ELBE |
| Small Local Business Enterprise | SLBE | Small Disadvantaged Business | SDB |
| Woman-Owned Small Business | WoSB | HUBZone Business | HUBZone |
| Service-Disabled Veteran Owned Small Business | SDVOSB | | |
- (2) As appropriate. Design-Builder shall indicate if Vendor/Supplier is certified by:
- | | | | |
|--|--------|---|----------|
| City of San Diego | CITY | State of California Department of Transportation | CALTRANS |
| California Public Utilities Commission | CPUC | San Diego Regional Minority Vendor/Supplier Diversity Council | SRMSDC |
| State of California's Department of General Services | CADoGS | City of Los Angeles | LA |
| State of California | CA | U.S. Small Business Administration | SBA |

The Design-Builder will not receive any subcontracting participation percentages if the Design-Builder fails to submit the required proof of certification (except for OBE, SLBE, and ELBE)

Appendix E

Equal Employment Opportunity Plan

**Orion Construction Corporation
Equal Employment Opportunity (EEO) Plan**

Orion Construction, Inc. (hereinafter "Orion") is dedicated to maintaining a working environment free of discrimination, harassment, intimidation and coercion at all sites and in all facilities at which Orion's employees are assigned to work.

A responsible official is designated to monitor all employment-related activity to ensure Orion's EEO Policy is being carried out and to submit reports to EEO provisions.

Orion disseminates and reviews its EEO Policy with all employees at least once a year, posts the policy statement and EEO posters on all Orion bulletin boards and job sites, and documents every dissemination, review and posting with a written record to identify the time, place, employees present, subject matter, and disposition of meetings.

Orion reviews, at least annually, all supervisors' adherence to and performance under the EEO Policy and maintains written documentation of these reviews.

Orion discusses its EEO Policy Statement with subcontractors with whom it anticipates doing business, includes the EEO Policy Statement in its subcontracts, and provides such documentation to the City upon request.

Orion documents and maintains a record of all bid solicitations and outreach efforts to and from subcontractors, contractor associations and other business associations.

Orion disseminates its EEO Policy to community organizations.

Orion provides immediate written notification to the City when any union referral process had impeded Orion's efforts to maintain its EEO Policy.

Orion maintains a current list of recruitment sources, including those outreaching to people of color and women, and provides written notification of employment opportunities to these recruitment sources with a record of the organizations' responses.

Orion maintains a current file of names, addresses and phone numbers of each walk-in applicant, including people of color and women, and referrals from unions, recruitment sources, or community organizations with a description of the employment taken.

Orion encourages all present employees, including people of color and women employees to recruit others.

Orion maintains all employment selection process information with records of all tests and other selection criteria.

**Orion Construction Corporation
Equal Employment Opportunity (EEO) Plan**

Orion develops and maintains documentation for the on-the-job training opportunities and/or participates in training programs for all of its employees, including people of color and women, and establishes apprenticeship, trainee, and upgrade programs relevant to Orion's employment needs.

Orion conducts, at least annually, an inventory and evaluation of all employees for promotional opportunities and encourages all employees to seek and prepare appropriately for such opportunities.

Orion ensures the company's working environment and activities are non-segregated except for providing separate or single-user toilets and necessary changing facilities to assure privacy between the sexes.

Orion establishes and documents policies and procedures to ensure job classifications; work assignments, promotional tests, recruitment and other personnel practices do not have a discriminatory effect.

Orion is encouraged to participate in voluntary associations, which assist in the fulfilling one or more of its non-discrimination obligations. The efforts of a contractor association, contractor/community professional association, foundation or other similar group of which the Contractor is a member will be considered as being part of fulfilling these obligations, provided the Contractor actively participates. All Subcontractors agree to abide by this program as part of their subcontract agreement.

**Orion Construction Corporation
Drug Free Workplace**

Orion Construction Corporation is familiar with the requirements of San Diego City Council Policy No. 100-17 regarding Drug-Free Workplace as outline in NOTICE INVITING BIDS, "Drug Free Workplace," of the project specifications, and that we have in place a drug-free workplace program at jobsites which complies with said policy. All Subcontractors agree to abide by this program as part of their subcontract agreement.

**Orion Construction Corporation
American Disabilities Act**

Orion Construction Corporation is familiar with the requirements of San Diego City Council Policy No. 100-04 regarding the Americans with Disabilities Act Requirements as outline in NOTICE/INVITING BIDS, "Americans with Disabilities Act," of the project specifications, and that we comply with ADA by adhering to all of the provisions of the ADA which complies with said policy. All Subcontractors agree to abide by this program as part of their subcontract agreement.