



**Invitation to Bid (ITB) for  
Removal and Transport of Grit, Scum/Sludge, and Storm Water**

**Solicitation Number:** 10089808-22-W

**Solicitation Issue Date:** May 9, 2022

**Mandatory Pre-Bid Conference:** May 13, 2022 @ 9:00 a.m.  
Point Loma Wastewater Treatment Plant (PLWWTP)  
1902 Gatchell Road, San Diego, CA 92106

**Mandatory Site Inspection:** May 13, 2022 @ 9:30 a.m.  
Point Loma Wastewater Treatment Plant (PLWWTP)  
1902 Gatchell Road, San Diego, CA 92106

May 13, 2022 @ 10:45 a.m.  
South Bay Water Reclamation Plant (SWWRP)  
2411 Dairy Mart Road, San Diego, CA 92154

May 13, 2022 @ 12:30 p.m.  
North City Water Reclamation Plant (NCWRP)  
4949 Eastgate Mall, San Diego, CA 92121

**Questions and Comments Due:** May 19, 2022 @ 12:00 p.m.

**Bid Due Date and Time (“Closing Date”):** May 27, 2022 @ 3:00 p.m.

**Contract Term:** One (1) year from Effective Date, with four (4) additional one (1) year period (s) as defined in Article I, Section 1.2 of the City’s General Contract Terms and Conditions

**City Contact:** Michael Warner, Supervising Procurement Contracting Officer  
1200 Third Avenue, Suite 200, San Diego, CA 92101  
[MWArner@sandiego.gov](mailto:MWArner@sandiego.gov)  
(619) 236-6154

**Submissions:** Bidder is required to provide one (1) originals and one (1) electronic copy (e.g. thumb drive or CD) of their response as described herein.

**Completed and signed ITB signature page is required, with most recent addendum listed as acknowledgement of all addenda issued.**

**Note: Emailed submissions will not be accepted. Due to COVID-19, electronic copies submitted through PlanetBids will be accepted. Instructions for electronic submissions are provided as an attachment in PlanetBids.**

**CONTRACT RESULTING FROM INVITATION TO BID NUMBER 10089808-22-W, Removal and Transport of Grit, Scum/Sludge, and Storm Water**

This Contract (Contract) is entered into by and between the City of San Diego, a municipal corporation (City), and the successful bidder to Invitation to Bid (ITB) # 10089808-22-W, Removal and Transport of Grit, Scum/Sludge, and Storm Water (Contractor).

**RECITALS**

On or about 5/9/2022, City issued an ITB to prospective bidders on services to be provided to the City. The ITB and any addenda and exhibits thereto are collectively referred to as the "ITB." The ITB is attached hereto as Exhibit A.

City has determined that Contractor has the expertise, experience, and personnel necessary to provide the services.

City wishes to retain Contractor to furnish the City of San Diego with the removal and transport of grit, scum/sludge, and storm water as further described in the Scope of Work, attached hereto as Exhibit B. (Services).

For good and valuable consideration, the sufficiency of which is acknowledged, City and Contractor agree as follows:

**ARTICLE I  
CONTRACTOR SERVICES**

**1.1 Scope of Work.** Contractor shall provide the Services to City as described in Exhibit B which is incorporated herein by reference. Contractor will submit all required forms and information described in Exhibit A to the Purchasing Agent before providing Service.

**1.2 General Contract Terms and Provisions.** This Contract incorporates by reference the General Contract Terms and Provisions, attached hereto as Exhibit C.

**ARTICLE II  
DURATION OF CONTRACT**

**2.1 Term.** This Contract shall be for a period of one (1) year beginning on the Effective Date. City may, in its sole discretion, extend this Contract for four (4) additional one (1) year period(s). Unless otherwise terminated, this Contract shall be effective through the completion of the Scope of Services. The term of this Contract shall not exceed five years unless approved by the City Council by ordinance.

**2.2 Effective Date.** This Contract shall be effective on the date it is executed by the last Party to sign the Contract or identified in the Notice to Proceed, and approved by the City Attorney in accordance with San Diego Charter Section 40.

**ARTICLE III  
COMPENSATION**

**3.1 Amount of Compensation.** City shall pay Contractor for performance of all Services rendered in accordance with this Contract in an amount not to exceed \$3,000,000 without City Council approval.

**ARTICLE IV  
WAGE REQUIREMENTS**

**4.1** By submitting a response to this ITB, Contractor certifies that he or she is aware of, and agrees to comply with, the wage provisions described in Exhibit D, Wage Requirements, which is incorporated herein by reference, before commencing Services.

**ARTICLE V  
CONTRACT DOCUMENTS**

**5.1 Contract Documents.** The following documents comprise the Contract between the City and Contractor: this Contract and all exhibits thereto; the Notice to Proceed; and the City's written acceptance of exceptions or clarifications to the ITB, if any.

**5.2 Contract Interpretation.** The Contract Documents completely describe the services to be provided. Contractor will provide any services that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result whether or not specifically called for or identified in the Contract Documents. Words or phrases which have a well-known technical or construction industry or trade meaning and are used to describe services will be interpreted in accordance with that meaning unless a definition has been provided in the Contract Documents.

**5.3 Precedence.** In resolving conflicts resulting from errors or discrepancies in any of the Contract Documents, the Parties will use the order of precedence as set forth below. The document highest in the order of precedence controls. Inconsistent provisions in the Contract Documents that address the same subject, are consistent, and have different degrees of specificity, are not in conflict and the more specific language will control. The order of precedence from highest to lowest is as follows:

- 1<sup>st</sup>      The Contract
- 2<sup>nd</sup>      The ITB and the City's written acceptance of any exceptions or clarifications to the ITB, if any
- 3<sup>rd</sup>      Contractor's Pricing

**5.4 Counterparts.** This Contract may be executed in counterparts which, when taken together, shall constitute a single signed original as though all Parties had executed the same page.

**5.5 Public Agencies.** Other public agencies, as defined by California Government Code section 6500, may choose to use the terms of this Contract, subject to Contractor's acceptance. The City is not liable or responsible for any obligations related to a subsequent Contract between Contractor and another public agency.

IN WITNESS WHEREOF, this Contract is executed by City and Contractor acting by and through their authorized officers.

**CONTRACTOR**

**CITY OF SAN DIEGO**  
**A Municipal Corporation**

U.S. Ecology - NRC Environmental Services  
**Bidder**

**BY:**



2950 Kurtz Street  
**Street Address**

**Print Name:** Claudia C. Abarca  
**Director Purchasing & Contracting Department**

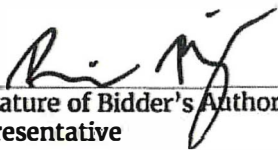
San Diego  
**City**

August 17, 2022  
**Date Signed**

(619) 235-3333  
**Telephone No.**

richard.inguez@usecology.com  
**E-Mail**

**BY:**



**Signature of Bidder's Authorized Representative**

Richard Inguez  
**Print Name**

Southern California General Manager  
**Title**

July 6, 2022  
**Date**

Approved as to form this 18 day of

Aug., 20 22  
**MARA W. ELLIOTT, City Attorney**

**BY:**

  
**Deputy City Attorney**

**EXHIBIT A**  
**INSTRUCTIONS AND BID REQUIREMENTS**

**A. BID SUBMISSION**

**1. Timely Bid Submittal.** Bids must be submitted as described herein to the Purchasing & Contracting Department (P&C).

**1.1 Reserved.**

**1.2 Paper Bids.** The City will accept paper bids in lieu of eBids. Paper bids must be submitted in a sealed envelope to the Purchasing & Contracting Department (P&C) located at 1200 Third Avenue, Suite 200, San Diego, CA 92101. The Solicitation Number and Closing Date must be referenced in the lower left-hand corner of the outside of the envelope. Faxed bids will not be accepted.

**1.2.1** Due to COVID-19, electronic copies submitted through PlanetBids will be accepted. Instructions for electronic submissions are provided as an attachment in PlanetBids.

**1.3 Bid Due Date.** Bids must be submitted prior to the Closing Date indicated in the eBidding System. E-mailed and/or faxed bids will not be accepted.

**1.4 Pre-Bid Conference.** Pre-bid conference information is noted on the eBidding System.

**1.4.1** Bidders are required to attend the pre-bid conference. Bidder's failure to attend will result in disqualification.

**1.5 Questions and Comments.** Written questions and comments must be submitted electronically via the eBidding System no later than the date specified on the eBidding System. Only written communications relative to the procurement shall be considered. The City's eBidding System is the only acceptable method for submission of questions. All questions will be answered in writing. The City will distribute questions and answers without identification of the inquirer(s) to all bidders who are on record as having received this ITB via its eBidding System. No oral communications can be relied upon for this ITB. Addenda will be issued addressing questions or comments that are determined by the City to cause a change to any part of this ITB.

**1.6 Contact with City Staff.** Unless otherwise authorized herein, bidders who are considering submitting a bid in response to this ITB, or who submit a bid in response to this ITB, are prohibited from communicating with City staff about this ITB from the date this ITB is issued until a contract is awarded.

**2. Submission of Information and Forms.**

**2.1** Completed and signed Contract Signature Page. If any addenda are issued, the latest Addendum Contract Signature Page is required.

**2.2** Exceptions requested by bidder, if any. The bidder must present written factual or legal justification for any exception requested to the Scope of Work, Contract, or the Exhibits. Any exceptions to the Contract that have not been accepted by the City in writing are deemed rejected. The City, in its sole discretion, may accept some or all of bidder's exceptions, reject bidder's exceptions and deem the bid non-responsive, or award the Contract without bidder's proposed exceptions.

**2.3** The Contractor Standards Pledge of Compliance Form. The City uses the criteria set forth in the Contractor Standards Ordinance to determine whether a Contractor has the capacity to fully perform the contract requirements and business integrity to justify the award of public funds. The City may reject a bid and deem the bidder non-responsible for unsatisfactory business integrity and/or performance history.

**2.4** Equal Opportunity Contracting forms including the Work Force Report and Contractors Certification of Pending Actions.

**2.5** Reserved

**2.6** Licenses as required in Exhibit B.

**2.7** Reserved.

**2.8** Additional Information as required in Exhibit B.

**2.9** Reserved

**2.10** Reserved

**2.11** Reserved

**3. Bid Review.** Bidders are responsible for carefully examining the ITB, the Scope of Work, this Contract, and all documents incorporated into the Contract by reference before submitting a bid. If selected for award of contract, bidder shall be bound by same unless the City has accepted bidder's exceptions, if any, in writing.

**4. Addenda.** The City may issue addenda to this ITB as necessary. All addenda are incorporated into the Contract. The bidder is responsible for determining whether addenda were issued prior to a bid submission. Failure to respond to or properly address addenda may result in rejection of a bid.

**5. Quantities.** The estimated quantities provided by the City are not guaranteed. These quantities are listed for informational purposes only. Quantities vary depending on the demands of the City. Any variations from the estimated quantities shall not entitle the bidder to an adjustment in the unit price or any additional compensation.

**6. Quality.** Unless otherwise required, all goods furnished shall be new and the best of their kind.

**6.1 Items Offered.** Bidder shall state the applicable trade name, brand, catalog, manufacturer, and/or product number of the required good, if any, in the bid.

**6.2 Brand Names.** Any reference to a specific brand name in a solicitation is illustrative only and describes a component best meeting the specific operational, design, performance, maintenance, quality, or reliability standards and requirements of the City. Bidder may offer an equivalent or equal in response to a brand name referenced (Proposed Equivalent). The City may consider the Proposed Equivalent after it is subjected to testing and evaluation which must be completed prior to the award of contract. If the bidder offers an item of a manufacturer or vendor other than that specified, the bidder must identify the maker, brand, quality, manufacturer number, product number, catalog number, or other trade designation. The City has complete discretion in determining if a Proposed Equivalent will satisfy its requirements. It is the bidder's responsibility to provide, at their expense, any product information, test data, or other information or documents the City requests to properly evaluate or demonstrate the acceptability of the Proposed Equivalent, including independent testing, evaluation at qualified test facilities, or destructive testing.

**7. Modifications, Withdrawals, or Mistakes.** Bidder is responsible for verifying all prices and extensions before submitting a bid.

**7.1 Modification or Withdrawal of Bid before Bid Opening.** Prior to the Closing Date, the bidder or bidder's authorized representative may modify or withdraw the bid by providing written notice of the bid modification or withdrawal to the City Contact via the eBidding System. E-mail or telephonic withdrawals or modifications are not permissible.

**7.2 Bid Modification or Withdrawal of Bid After Bid Opening.** Any bidder who seeks to modify or withdraw a bid because of the bidder's inadvertent computational error affecting the bid price shall notify the City Contact identified on the eBidding System no later than three working days following the Closing Date. The bidder shall provide worksheets and such other information as may be required by the City to substantiate the claim of inadvertent error. Failure to do so may bar relief and allow the City recourse from the bid surety. The burden is upon the bidder to prove the inadvertent error. If, as a result of a bid modification, the bidder is no longer the apparent successful bidder, the City will award to the newly established apparent successful bidder. The City's decision is final.

**8. Incurred Expenses.** The City is not responsible for any expenses incurred by bidders in participating in this solicitation process.

**9. Public Records.** By submitting a bid, the bidder acknowledges that any information submitted in response to this ITB is a public record subject to disclosure unless the City determines that a specific exemption in the California Public Records Act (CPRA) applies. If the bidder submits information clearly marked confidential or proprietary, the City may protect such information and treat it with confidentiality to the extent permitted by law. However, it will be the responsibility of the bidder to provide to the City the specific legal grounds on which the City can rely in withholding information requested under the CPRA should the City choose to withhold such information. General references to sections of the CPRA will not suffice. Rather, the bidder must provide a specific and detailed legal basis, including applicable case law, that clearly establishes the requested information is exempt

from the disclosure under the CPRA. If the bidder does not provide a specific and detailed legal basis for requesting the City to withhold bidder's confidential or proprietary information at the time of bid submittal, City will release the information as required by the CPRA and bidder will hold the City, its elected officials, officers, and employees harmless for release of this information. It will be the bidder's obligation to defend, at bidder's expense, any legal actions or challenges seeking to obtain from the City any information requested under the CPRA withheld by the City at the bidder's request. Furthermore, the bidder shall indemnify and hold harmless the City, its elected officials, officers, and employees from and against any claim or liability, and defend any action brought against the City, resulting from the City's refusal to release information requested under the CPRA which was withheld at bidder's request. Nothing in the Contract resulting from this bid creates any obligation on the part of the City to notify the bidder or obtain the bidder's approval or consent before releasing information subject to disclosure under the CPRA.

**10. Right to Audit.** The City Auditor may access bidder's records as described in San Diego Charter section 39.2 to confirm contract compliance.

## **B. PRICING**

**1. Fixed Price.** All prices shall be firm, fixed, fully burdened, FOB destination, and include any applicable delivery or freight charges, and any other costs required to provide the requirements as specified in this ITB.

**2. Taxes and Fees.** Taxes and applicable local, state, and federal regulatory fees should not be included in the price proposal. Applicable taxes and regulatory fees will be added to the net amount invoiced. The City is liable for state, city, and county sales taxes but is exempt from Federal Excise Tax and will furnish exemption certificates upon request. All or any portion of the City sales tax returned to the City will be considered in the evaluation of bids.

**3. Escalation.** An escalation factor is not allowed unless called for in this ITB. If escalation is allowed, bidder must notify the City in writing in the event of a decline in market price(s) below the bid price. At that time, the City will make an adjustment in the Contract or may elect to re-solicit.

**4. Unit Price.** Unless the bidder clearly indicates that the price is based on consideration of being awarded the entire lot and that an adjustment to the price was made based on receiving the entire bid, any difference between the unit price correctly extended and the total price shown for all items shall be offered shall be resolved in favor of the unit price.

**C. BID OPENING.** All bids will be opened at, or immediately after, the time noticed for the bid opening in a location that is open to the public. No bidder or interested person will be excluded from the bid opening. Where no member of the public is in attendance, at least one City officer or employee, in addition to the City employee opening the bids, will be present. Bid results will be announced in the presence of those attending. The name of the project will be audibly announced to those present followed by the name of the bidder, the name of the surety, the amount of the bond, if required, and the total amounts or unit amounts bid.



Any person present shall have the right to ask the announcements be repeated or to ask that omitted data be supplied. Such requests will be honored to the extent they do not unreasonably delay or interfere with the bid opening procedure, as determined at the sole discretion of the City employee opening the bids.

#### **D. EVALUATION OF BIDS**

**1. Low Bid Award.** A contract will be awarded to the lowest responsible and responsive bidder.

**2. Additional Information.** The City may require bidder to provide additional written or oral information to clarify responses.

**3. Sustainable Materials.** Consistent with Council Policy 100-14, the City encourages use of readily recyclable submittal materials that contain post-consumer recycled content.

**4. Waiver of Defects and Technicalities.** The City may waive defects and technicalities in bids when to do so is in the City's best interests.

**5. Rejection of All Bids.** The City may reject any and all bids when to do so is in the City's best interests.

#### **E. ANNOUNCEMENT OF AWARD**

**1. Award of Contract.** The City will inform all bidders of its intent to award a Contract in writing.

**2. Obtaining Bid Results.** Bid results may be obtained by: (1) attending the bid opening; (2) e-mailing a request to the City Contact identified on the eBidding System; or (3) visiting the P&C eBidding System to review the bid results. To ensure an accurate response, requests should reference the Solicitation Number. Bid results will not be released over the phone.

**3. Multiple Awards.** City may award more than one contract by awarding separate items or groups of items to various bidders. The additional administrative costs associated with awarding more than one Contract will be considered in the determination.

**F. PROTESTS.** The City's protest procedures are codified in Chapter 2, Article 2, Division 30 of the San Diego Municipal Code (SDMC). These procedures provide unsuccessful bidders with the opportunity to challenge the City's determination on legal and factual grounds. The City will not consider or otherwise act upon an untimely protest.

**G. SUBMITTALS REQUIRED UPON NOTICE OF INTENT TO AWARD.** The successful bidder is required to submit the following documents to P&C **within ten (10) business days** from the date on the Notice of Intent to Award letter:

**1. Insurance Documents.** Evidence of all required insurance, including all required endorsements, as specified in Article VII of the General Contract Terms and Provisions.

**2. Taxpayer Identification Number.** Internal Revenue Service (IRS) regulations require the City to have the correct name, address, and Taxpayer Identification Number (TIN) or Social Security Number (SSN) on file for businesses or persons who provide goods or services to the City. This information is necessary to complete Form 1099 at the end of each tax year. To comply with IRS regulations, the City requires each Contractor to provide a Form W-9 prior to the award of a Contract.

**3. Business Tax Certificate.** All businesses that contract with the City must have a current business tax certificate unless the City Treasurer determines the business is exempt.

**4. Bond. A bond as described in Exhibit B.**

**5. Reserved.**

The City may find the bidder to be non-responsive and award the Contract to the next responsible and responsive low bidder if the apparent successful bidder fails to timely provide the required information or documents.

**EXHIBIT B  
SCOPE OF WORK**

**A. BACKGROUND**

The Wastewater Treatment and Disposal Division (WWTD) of the City of San Diego (City), Public Utilities Department (PUD), is seeking qualified Contractor to provide removal and transport services of grit, scum/sludge, and storm water from various City facilities. Other services to be provided on an as needed basis are cleaning glass lined piping and tanks of vivianite buildup, confined space tank cleaning, channel cleaning, and floor drain cleaning to include sumps. Contractor is required to provide all equipment, the complete transportation system, and labor required to remove and transport grit, sludge, scum, and storm water as specified within this bid.

Scum/sludge service includes the Contractor removing the lids from the sedimentation basins and removing the accumulated scum/sludge and transporting it from the sedimentation basins to the concentrators or scum pump hopper. Grit service includes the Contractor removing the grit accumulation from out of service grit basins and transporting it from the grit tanks to the wash rack. Storm water service includes the Contractor removing storm water and debris from the storm water sumps to the wash rack. Vivianite removal service includes the Contractor removing vivianite accumulation from the sludge blend tank, digester raw feed piping, recirculation piping, heat exchangers, and any other digester components having vivianite build up. Channel service includes the Contractor removing grit build up from headworks and sedimentation influent channels. Floor drains and sumps service includes the Contractor using high pressure hydro blasting equipment to clear floor drains and sumps that regular plumbers service would not be sufficient due to heavy chemical, struvite, calcium, and or vivianite build up.

**B. MANDATORY PRE-BID CONFERENCE AND SITE INSPECTIONS**

Bidders are required to attend the mandatory pre-bid conference and site inspections to be considered responsive. Bidders shall allow up to approximately 5 hours for the mandatory pre-bid conference and site inspections. The mandatory pre-bid conference and site inspections will begin at the Point Loma Wastewater Treatment Plant (PLWWTP), North Operations Building, large conference room, on Friday, May 13, 2022 at 9:00 a.m. at the below location:

Point Loma Wastewater Treatment Plant  
1902 Gatchell Road  
San Diego, CA 92106

The mandatory site inspections will immediately follow the pre-bid conference. The designated site inspections shall be the only opportunity for Bidders to walk the site with City staff. The mandatory site inspections will be conducted at the following locations and times:

1. Point Loma Wastewater Treatment Plant  
1902 Gatchell Road  
San Diego, CA 92106  
Site Inspection: 9:30 a.m. – 10:15 a.m.

2. South Bay Water Reclamation Plant  
2411 Dairy Mart Road  
San Diego, CA 92154  
Site Inspection: 10:45 a.m. – 11:30 a.m.
3. North City Water Reclamation Plant  
4949 Eastgate Mall  
San Diego, CA 92121  
Site Inspection: 12:30 p.m. – 1:15 p.m.

Failure to attend the mandatory pre-bid conference and all three (3) site inspections shall deem a bid submittal non-responsive.

Following the Centers for Disease Control and Prevention's guidance all personnel attending the mandatory pre-bid conference and site inspections are required to wear a face mask at all times during the conference and site inspections. Face coverings includes masks (purchased or homemade), bandanas, scarves and neck gaiters and must cover both the nose and mouth.

Bidders are responsible for inspecting the work site to verify site conditions and size of Service areas. Failure to do so will not relieve the Bidder of their responsibility to perform in accordance with these specifications. No additional compensation or relief from any obligations of the contract will be granted because of any lack of knowledge of the sites.

By submitting a bid, Bidder acknowledges that they are relying on their own examination of the work site and have the capability to fulfill the contract requirements and are knowledgeable of all other data and matters requisite to the fulfillment of the contract.

Information provided by the City during the site inspections is not intended to be a substitute for, or a supplement to, the independent verification by the Bidder to the extent such independent investigation of site conditions is deemed necessary or desirable by the Bidder.

### **C. GENERAL REQUIREMENTS**

Scum/sludge is defined as grease or oil and solids in wastewater. It is produced by three facilities. Grit is defined as sand and gravel in wastewater and is produced by all facilities. Storm water is defined as water that is collected from rain fall in the Storm Water Sumps at each facility. Vivianite is a hard, dense blue-gray precipitate of hydrated ferrous phosphate ( $\text{Fe}_3(\text{PO}_4)_2 \cdot 8\text{H}_2\text{O}$ ). The scum/sludge, grit, vivianite, and storm water to be serviced in this bid are non-hazardous. Each facility specifics are described below.

It is imperative that no backing up of scum/sludge occurs in the treatment plant and that no scum/sludge gets into the ocean or storm drains. Before performing any service as part of this contract, the Contractor shall build a containment system under their equipment/truck and hoses to prevent any leakage or seepage into the street/storm drains of scum/sludge, grit, storm water.

Contractor shall assure that all of their connections are secure. Any cost associated with the clean-up of scum/sludge, etc. due to Contractor's negligence shall be at their sole expense.

For safety and efficiency, service will be performed during daylight hours only and shall not interfere with the other operations of the treatment plant. The City will oversee the scum/sludge services.

Contractor shall perform work as defined below:

1. The City will provide a device for easy lid removal. The consistency of the scum/sludge requires the Contractor to break-up the scum/sludge using garden hoses. There is a water connection for hose bibs located at each sedimentation tank area. The Contractor may provide their own hoses, or the City has garden hoses available for Contractor use. Even after the scum/sludge is broken up with water, the consistency is such that it typically will collapse a soft hose under vacuum pressure; therefore, the Contractor is required to provide a hard hose, or equal, and a Vactor Guzzler, or equal, that can pressurize off solids. If the scum pumps are operable, the Contractor may pump the contents of their equipment directly into the scum sump and the City will then pump the contents of the scum sump into the concentrators; however, if the scum pump is not available, the Contractor shall transfer the contents of their equipment directly into the concentrator. The concentrator is located no more than 200 yards away from the furthest sedimentation tank.
2. Grit tank services are only serviced after the City has taken them out of service. Grit tanks to be serviced will have approximately 2 - 4 feet of water and grit.
3. Storm water service is typically scheduled at the same time as grit service. The storm water sumps typically contain storm water, sand, mud, and leaves.
4. Vivianite removal service is only scheduled when there is build up in the tanks and piping. The City will drain and Lock Out/Tag Out (LO/TO) any tank or piping being worked on.

#### **D. DAMAGES TO EQUIPMENT OR INJURY TO PEOPLE**

1. Contractor's personnel shall immediately report to the Technical Representative, or designee, any accident, injury, property damage, or any other problem or irregularities that occur when providing service as described in this ITB.
2. Contractor shall be responsible for all damages to personnel and/or property that occur as a result of the fault or negligence of said Contractor or Contractor's employees in connection with the performance of this work.
3. Contractor shall be responsible for repairing or replacing any City owned or City supplied equipment damaged by the Contractor or the Contractor's employees.
4. Repairs will not be performed until the City has inspected the damage and the City has agreed to the scope of any necessary repairs.

## **E. SERVICE LOCATIONS**

Scum/sludge, grit, sludge blend tank, digester pipe cleaning, channel and storm water service are required at the following locations. The City reserves the right to add or delete service locations, as required.

1. Point Loma Wastewater Treatment Plant  
1902 Gatchell Road  
San Diego, CA 92106
2. South Bay Water Reclamation Plant  
2411 Dairy Mart Road  
San Diego, CA 92154
3. North City Water Reclamation Plant  
4949 Eastgate Mall  
San Diego, CA 92121

## **F. ACCESS TO FACILITIES**

Access to the WWTD facility locations is restricted and controlled. Anyone entering these facilities are subject to secure access controls. Contractor personnel shall not allow anyone on the premises unless that person is specifically assigned by the Contractor to perform work at these facilities. This rule will be strictly enforced and non-compliance may be cause for termination of the contract.

For PLWWTP, after hour's access (5:00 p.m. – 5:00 a.m.) is controlled through the US Navy Security Gate at the end of Catalina Boulevard. Information requested by the US Navy for all Contractor and Subcontractor personnel as well as vehicle information will be required two (2) weeks in advance of the start of work to allow after-hours access to the Plant. This information may include, but shall not be limited to, names, birthdates, driver's license information, social security numbers, and verification of insurance.

Contractor personnel, including all supervisors conducting inspections, shall sign in and out upon reporting for work and prior to leaving work on a log provided by the Technical Representative, or designee. Contractor personnel are to sign in and out based on actual arrival and departure times versus scheduled times. Supervisors shall write "Supervisor" beside their name. The City has no obligation to pay for services if the log is not properly completed. The log will be kept in a designated area identified by the Technical representative, or designee.

## **G. TRANSPORT SYSTEM & EQUIPMENT**

The transport system and related equipment provided by the Contractor shall be in compliance with California Environmental Protection Agency (EPA) standards. All hydro blasting and pressure washing equipment provided over 50hp shall be in compliance with the San Diego County Air Pollution Control District (APCD) and/or EPA Air Resources Board (ARB) requirements. Contractors are required to submit with their bid details on their proposed removal and transport system, related equipment, and personnel who will provide the specified service.

The City reserves the right to determine acceptability of the Contractor's transport system and related equipment and personnel prior to award of contract.

#### **H. LICENSE AND PERMITS**

Contractor is responsible for all licenses and permits necessary to provide the specified scum/sludge, grit, and storm water services as specified in this bid, including but not limited to the transport of non-hazardous waste throughout the United States. Contractor shall submit with their bid the required permits specified in Section O. Contractor shall be required to provide copies of all required permits within thirty (30) days of award. No service will be performed under the Contract without the required permits. The City will file and supply non-hazardous waste manifests to the Contractor.

#### **I. CONFINED SPACE ENTRY**

When necessary, Contractor shall perform confined space entry into the grit tanks, influent channels, sludge blend tank, or other areas as needed in order to access a facility for cleaning. Technicians performing confined space entry are required to be CAL-OSHA certified for confined space entry, follow all related CAL-OSHA certified guidelines and safety measures, and use the proper safety equipment for the job.

#### **J. CONTRACTOR LOCAL OFFICE**

A Contractor representative, authorized to discuss matters related to this contract, must be available during normal business hours, Monday through Friday between the hours of 6:00 a.m. and 5:00 p.m. An answering service in conjunction with a pager for the designated Contractor representative would fulfill this requirement. Due to lack of reception, a mobile telephone shall not fulfill the requirement for a local office.

#### **K. CONTRACTOR RESPONSE TIMES AND EMERGENCY CALLS**

Contractor shall have the capability to receive and respond immediately to calls of an emergency nature during normal working hours and outside of normal working hours. In most instances, the City's Technical Representative, or designee, will schedule work with the Contractor fourteen (14) to thirty (30) days in advance; however, emergency situations will require the Contractor to provide immediate service.

1. Non-Emergency Calls – A supervisor or manager shall respond to non-emergency calls, or e-mails within one (1) hour. All actions required to resolve the non-emergency issue(s) or deficiencies must be completed by the next business day unless otherwise directed by the City's Technical Representative, or designee. Failure to respond and/or take appropriate corrective action within the time frame specified may result in termination of the contract.
2. Emergency Calls – A supervisor or manager shall respond to emergency telephone calls within fifteen (15) minutes of the call being placed. Emergency calls are defined as those where the City's Technical Representative, or designee, states an emergency exists and notifies the Contractor's office of such emergency. Failure to take appropriate corrective action for emergencies within the time frame may result in termination of the contract. In the event the Contractor is unable to perform

emergency services within this notified time frame, the City reserves the right to procure services off-contract.

## L. SPECIFICATIONS PER FACILITY

### 1. Point Loma Wastewater Treatment Plant

- a. This facility has the use of twelve (12) sedimentation basins, two (2) scum concentrators, six (6) grit tanks, eight (8) digesters with piping, one (1) sludge blending tank, and three (3) feed pumps with piping.
- b. Scum/Sludge Service: Typically performed two (2) times per year, or on an as needed basis. Each time the service is performed, the City estimates the work to be completed in up to five (5) workdays by three (3) to four (4) technicians, and an equipment operator/driver. Contractor shall remove the lids to the sedimentation tank.
- c. Grit Service: Typically performed once per year, or on an as needed basis. Each time the service is performed, the City estimates the work to be completed in up to ten (1) workdays. Storm water service is usually scheduled to be completed during this same time period and/or as needed. If Contractor needs to enter a grit tank to move the suction hose, a confined space specialist will be required. Contractor shall empty the contents of their equipment onto the wash rack. The wash rack is located within 150 yards of the grit tanks.
- d. Storm Water: The Contractor empties the contents of their equipment onto the wash rack.

Note: Vactor/Guzler should be disinfected prior to pumping out storm drain containments.

Note: Vivianite service is typically performed only when there is build up in the sludge blend tank, feed pumps and piping and any digester piping or heat exchangers.

### 2. South Bay Wastewater Treatment Plant

- a. This Facility has the use of five (5) primary sedimentation basins, and two (2) grit tanks.
- b. Scum/Sludge Service: Typically performed two (2) times per year, on an as needed basis. Each time the service is performed, the City estimates the work to be completed in up to ten (10) workdays by three (3) to four (4) technicians, and an equipment operator/driver.
- c. Grit Service: Typically performed once per year, on an as needed basis. Each time the service is performed, the City estimates the work to be completed in up to three (3) workdays. If Contractor needs to enter a grit tank to move the suction hose, a confined space specialist will be required. Contractor shall



empty the contents of their equipment into the South Bay Water Reclamation Plant influent channel.

- d. Storm Water Service: The Contractor empties the contents of their equipment onto a grit bin located in the headworks building.

3. North City Water Reclamation Plant

- a. This Facility has the use of twenty (20) sedimentation basins, two (2) concentrators, and two (2) grit tanks.
- b. Scum/Sludge Service: Typically performed one (1) time per year, on an as needed basis. Each time the service is performed, the City estimates the work to be completed in up to five (5) workdays by three (3) to four (4) technicians, and an equipment operator/driver. Contractor shall empty the decanted contents of their equipment onto a 20 yard roll off bin.
- c. Grit Service: Typically performed two (2) times per year, on an as needed basis. Each time the service is performed, the City estimates the work to be completed in up to five (5) workdays by one (1) to four (4) technicians, and an equipment operator/driver. If Contractor needs to enter a grit tank to move the suction hose, a confined space specialist will be required. Contractor shall empty the decanted contents of their equipment onto a 20 yard roll off bin.
- d. Storm Water Service: Typically performed twice per year, on an as needed basis. Each time the service is performed, the City estimates the work to be completed in one (1) workday by one (1) technician, and an equipment operator/driver. Contractor empties the decanted contents of their equipment onto a 20 yard roll off bin.

**M. DEPARTMENT OF INDUSTRIAL RELATIONS (DIR) REGISTRATION NUMBER.** Per Section II.A.9:

	Registration No.	Expiration Date	Name
DIR Registration No.	1000008965	6/30/2025	NRC ENVIRONMENTAL SERVICES INC

**N. LICENSES.** To perform the work described in this solicitation, bidders must hold a Class A Contractor's License and California Highway Patrol Hazardous Materials Transportation License.

	License Number	Expiration Date	Name
State of California Contractor's License	Class: A No.: 716581	12/31/2023	NRC ENVIRONMENTAL SERVICES INC
California Highway Patrol – Hazardous Materials Transportation License	114013	3/31/2023	NRC ENVIRONMENTAL SERVICES INC

Any Bidder holding a different license who feels qualified to bid on this work must notify the City Contact in writing at least seven (7) days prior to the bid closing. After a thorough review of the proposed license substitution, the City will inform the Bidder, in writing, of its decision prior to the bid closing. The City’s decision is final.

**O. PERMITS.** To perform the work described in this solicitation, bidders must hold current permits listed below:

	License Number	Expiration Date	Name
California Department of Toxic Substances Control – Hazardous Waste Transporter Registration	6872	5/31/2023	NRC ENVIRONMENTAL SERVICES INC
US Department of Transportation Research and Special Programs Administration (RSPA) – Hazardous Materials Certificate	051022550211E	6/30/2023	NRC ENVIRONMENTAL SERVICES INC
California or Federal Environmental Protection Agency (EPA) ID Number	CAR 000030114	N/A - Active	NRC ENVIRONMENTAL SERVICES INC

**P. ADDITIONAL INSURANCE**

1. Commercial Pollution Liability Insurance. Contractor shall procure and maintain at its expense or cause its subcontractor to procure and maintain, Contractors Pollution Liability Insurance including contractual liability coverage to cover liability arising out of the collection, cleanup, removal, storage, disposal or handling of hazardous wastes, E-wastes, Universal Wastes or toxic chemicals, materials, substances, or any other pollutants by the Contractor or any subcontractor in an amount not less than two million dollars (\$2,000,000) per occurrence for bodily injury and property damage and with a four million dollar (\$4,000,000) annual aggregate. All costs of defense shall be outside the limits of the policy. Any such insurance provided by a subcontractor must be approved separately in writing by the City. Approval of a substitution of a subcontractor’s insurance shall require a certification by the Contractor that all activities for which Contractors Pollution Liability Insurance will provide coverage will be performed exclusively by the subcontractor providing the insurance. The deductible shall not exceed \$25,000 per claim. Contractual liability shall include coverage of tort liability of another party to pay for bodily injury or property damage to a third person or organization. There shall be no endorsement or modification of the coverage limiting the scope of coverage for either “insured vs. insured” claims or contractual liability. Occurrence based policies shall be procured before the Scope of Work commences and shall be maintained for the duration of the Contract. Claims Made policies shall be procured before the Scope of Services commences, shall be maintained for the duration of the Contract, and shall include a 12 month extended Claims Discovery Period applicable to the Contract or the existing policy or policies must continue to be maintained for 12 months after the completion of the Scope of Work under the Contract without advancing the retroactive date.

Except as provided for under California law, the policy or policies must provide that the City is entitled to thirty (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.

2. Contractors Hazardous Transporters Pollution Liability Insurance. Including contractual liability coverage to cover liability arising out of transportation of hazardous wastes, petroleum products and wastes, or toxic, materials, substances, or any other pollutants by the Contractor or any subcontractor in an amount not less than two million (\$2,000,000) limit per occurrence/aggregate for bodily injury and property damage. All costs of defense shall be outside the limits of the policy. The deductible shall not exceed \$25,000 per claim. Any such insurance provided by a subcontractor must be approved separately in writing by the City. Approval of the substitution of a subcontractor's insurance shall require a certification by the Contractor that all activities for which Contractors Hazardous Transporters Pollution Liability Insurance will provide coverage will be performed exclusively by the subcontractor providing the insurance.

Contractual liability shall include coverage of tort liability of another party to pay for bodily injury or property damage to a third person or organization. There shall be no endorsement or modification of the coverage limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. Occurrence based policies shall be procured before the Scope of Services commences and shall be maintained for the duration of the Contract. Claims Made policies shall be procured before the Scope of Services commences, shall be maintained for the duration of the Contract, and shall include a twelve (12) month extended Claims Discovery Period applicable to the Contract or the existing policy or policies must continue to be maintained for twelve (12) months after the completion of the Scope of Services under the Contract without advancing the retroactive date. Except as provided for under California law, the policy or policies must provide that the City is entitled to thirty (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.

#### **Q. PERFORMANCE BOND**

The Contractor shall be required to furnish the City of San Diego with a surety bond executed by a surety company authorized to do business in the State of California, and approved by the City of San Diego, in a sum equal to one hundred percent (100%) of the Contract amount, conditional for the performance of the Contract. Using Exhibit E, the performance bond shall be submitted to Purchasing & Contracting within ten (10) days of request. Failure to provide the bond within the time frame specified by the City shall be cause for the bid to be rejected as non-responsive. The bond shall be maintained by the Contractor in full force and effect during the entire period of performance under Contract. Failure to do so shall be cause for termination of the Contract. Refer to Article VIII of the City's Contracting Term's and Provisions for additional information.

#### **R. TECHNICAL REPRESENTATIVE**

The Technical Representative for this Contract is identified in the Notice to Proceed and is responsible for overseeing and monitoring this Contract.

## **S. PRICING SCHEDULE**

The estimated annual quantities provided by the City are not guaranteed. The quantities may vary depending on the demands of the City. Any variations for these estimated quantities shall not entitle the Bidder to an adjustment in the unit price or to any additional compensation and in no case shall exceed \$3 million within the Contract term, or without City Council approval.

Bidders shall complete the pricing schedule in the City's eBidding system in its entirety to be considered responsive. Pricing shall include all associated fees required to complete the scope of work described herein. Pricing shall be provided with consideration and in accordance to the Prevailing Wage requirements.

Unit prices shall be based on the Unit of Measure (U/M) as specified. Any changes to the U/M made by the Bidder may be cause for the bid to be rejected as non-responsive. Any discount offered other than for prompt payment should be included in the net price quoted instead of shown as a separate item. Applicable taxes should not be included in pricing.

*Note regarding Section 5: Bonds (Payment and Performance): The amount reflected should be for the cost to obtain a Bond in the amount that matches the combined bid amount of Sections 1-4.*

## Pricing Schedule

### Section 1: Point Loma Wastewater Treatment Plant

Item Num	Description	UOM	QTY	Unit Price	Line Total
1	Sedimentation Basins	EA	100	\$4,990.00	\$499,000.00
2	Scum Concentrators	EA	2	\$7,360.00	\$14,720.00
3	Grit Tanks	EA	10	\$8,170.00	\$81,700.00
4	Digester Piping	EA	30	\$8,070.00	\$242,100.00
5	Sludge Blending Tank	EA	3	\$11,075.00	\$33,225.00
6	Feed Pumps and Piping	EA	10	\$8,060.00	\$80,600.00
Subtotal					\$951,345.00

### Section 2: South Bay Wastewater Treatment Plant

7	Sedimentation Basins Hoppers	EA	5	\$8,120.00	\$40,600.00
8	Grit Tanks	EA	2	\$8,160.00	\$16,320.00
9	Grit Tanks Influent and Effluent Channel	EA	1	\$8,095.00	\$8,095.00
10	Barscreen Influent and Effluent Channel	EA	1	\$8,070.00	\$8,070.00
11	Primary Sed Basin Influent Channel	EA	1	\$9,140.00	\$9,140.00
12	Blended Sludge Wetwell	EA	1	\$8,160.00	\$8,160.00
13	Primary Sludge Lines (Pri Sed Tank thru Blended Sludge Wetwell)	EA	1	\$7,250.00	\$7,250.00
Subtotal					\$97,635.00

### Section 3: North City Water Reclamation Plant

14	Sedimentation Basins	EA	20	\$9,260.00	\$185,200.00
15	Scum Concentrators	EA	2	\$7,990.00	\$15,980.00
16	Grit Tanks	EA	2	\$9,315.00	\$18,630.00
17	Grit Tanks Influent and Effluent Channel	EA	1	\$9,275.00	\$9,275.00
18	Grit tanks hoppers lines to the classifiers	EA	1	\$7,590.00	\$7,590.00
19	Barscreen Influent and Effluent Channel	EA	1	\$8,255.00	\$8,255.00
20	Primary Sed Basin Influent Channel	EA	1	\$9,305.00	\$9,305.00
21	Blended Sludge Wetwell	EA	1	\$8,035.00	\$8,035.00
22	Blended sludge overflow line to influent pump station (bypass and recycled)	EA	1	\$7,810.00	\$7,810.00
23	Plant drain lines (bypass or recycled)	EA	1	\$7,670.00	\$7,670.00
24	Media Filter waste backwash lines to Influent pump station (bypass and recycled)	EA	1	\$8,030.00	\$8,030.00
25	Primary Sludge Lines (Pri Sed Tank thru Blended Sludge Wetwell)	EA	1	\$8,030.00	\$8,030.00
26	Mix liquor scum sump	EA	1	\$8,230.00	\$8,230.00
27	Influent pump station wetwell	EA	1	\$46,000.00	\$46,000.00
28	Influent pump station line to headworks	EA	1	\$7,670.00	\$7,670.00
Subtotal					\$355,710.00

**Section 4: As-Needed Labor and Equipment Costs (All Facilities)**

29	As needed, one (1) Operator, one (1) Vactor Guzzler, or equal, that can pressurize off solids. Equipment required includes, but not limited to, hard hose for Scum/Sludge, Grit and/or Storm Water Service as specified and jetter/blaster for vivianite.	HR	1960	\$270.00	\$529,200.00
30	As needed, Technician(s) to assist with hoses or other tasks as required to perform Scum/Sludge, Grit, and Storm Water Services as specified and jetter/blaster for vivianite.	HR	4960	\$105.00	\$520,800.00
31	As needed, one (1) Confined Space Specialist typically required one time a year when servicing Grit tanks.	HR	340	\$110.00	\$37,400.00
32	As needed, one (1) Confined Space Specialist required for Wet Well and Channel cleaning services as specified.	HR	340	\$110.00	\$37,400.00
33	As needed, Technician(s) to assist with Wet Well and Channel cleaning, services as specified.	HR	1060	\$105.00	\$111,300.00
				Subtotal	\$1,236,100.00

**Section 5: Bonds (Payment and Performance)**

34	Bonds (Payment and Performance)	LS	1	\$1,950.00	\$1,950.00
				Subtotal	\$1,950.00

Estimated Annual Total	\$2,642,740.00
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EXHIBIT C



**THE CITY OF SAN DIEGO**  
**GENERAL CONTRACT TERMS AND PROVISIONS**  
**APPLICABLE TO GOODS, SERVICES, AND CONSULTANT CONTRACTS**

**ARTICLE I**  
**SCOPE AND TERM OF CONTRACT**

**1.1 Scope of Contract.** The scope of contract between the City and a provider of goods and/or services (Contractor) is described in the Contract Documents. The Contract Documents are comprised of the Request for Proposal, Invitation to Bid, or other solicitation document (Solicitation); the successful bid or proposal; the letter awarding the contract to Contractor; the City's written acceptance of exceptions or clarifications to the Solicitation, if any; and these General Contract Terms and Provisions.

**1.2 Effective Date.** A contract between the City and Contractor (Contract) is effective on the last date that the contract is signed by the parties and approved by the City Attorney in accordance with Charter section 40. Unless otherwise terminated, this Contract is effective until it is completed or as otherwise agreed upon in writing by the parties, whichever is the earliest. A Contract term cannot exceed five (5) years unless approved by the City Council by ordinance.

**1.3 Contract Extension.** The City may, in its sole discretion, unilaterally exercise an option to extend the Contract as described in the Contract Documents. In addition, the City may, in its sole discretion, unilaterally extend the Contract on a month-to-month basis following contract expiration if authorized under Charter section 99 and the Contract Documents. Contractor shall not increase its pricing in excess of the percentage increase described in the Contract.

**ARTICLE II**  
**CONTRACT ADMINISTRATOR**

**2.1 Contract Administrator.** The Purchasing Agent or designee is the Contract Administrator for purposes of this Contract, and has the responsibilities described in this Contract, in the San Diego Charter, and in Chapter 2, Article 2, Divisions 5, 30, and 32.

**2.1.1 Contractor Performance Evaluations.** The Contract Administrator will evaluate Contractor's performance as often as the Contract Administrator deems necessary throughout the term of the contract. This evaluation will be based on criteria including the quality of goods or services, the timeliness of performance, and adherence to applicable laws, including prevailing wage and living wage. City will provide Contractors who receive an unsatisfactory rating with a copy of the evaluation and an opportunity to respond. City may consider final evaluations, including Contractor's response, in evaluating future proposals and bids for contract award.

**2.2 Notices.** Unless otherwise specified, in all cases where written notice is required under this Contract, service shall be deemed sufficient if the notice is personally delivered or deposited in the United States mail, with first class postage paid, attention to the Purchasing Agent. Proper notice is effective on the date of personal delivery or five (5) days after deposit in a United States postal mailbox unless provided otherwise in the Contract. Notices to the City shall be sent to:



Purchasing Agent  
City of San Diego, Purchasing and Contracting Division  
1200 3rd Avenue, Suite 200  
San Diego, CA 92101-4195

### ARTICLE III COMPENSATION

**3.1 Manner of Payment.** Contractor will be paid monthly, in arrears, for goods and/or services provided in accordance with the terms and provisions specified in the Contract.

**3.2 Invoices.**

**3.2.1 Invoice Detail.** Contractor's invoice must be on Contractor's stationary with Contractor's name, address, and remittance address if different. Contractor's invoice must have a date, an invoice number, a purchase order number, a description of the goods or services provided, and an amount due.

**3.2.2 Service Contracts.** Contractor must submit invoices for services to City by the 10<sup>th</sup> of the month following the month in which Contractor provided services. Invoices must include the address of the location where services were performed and the dates in which services were provided.

**3.2.3 Goods Contracts.** Contractor must submit invoices for goods to City within seven days of the shipment. Invoices must describe the goods provided.

**3.2.4 Parts Contracts.** Contractor must submit invoices for parts to City within seven calendar (7) days of the date the parts are shipped. Invoices must include the manufacturer of the part, manufacturer's published list price, percentage discount applied in accordance with Pricing Page(s), the net price to City, and an item description, quantity, and extension.

**3.2.5 Extraordinary Work.** City will not pay Contractor for extraordinary work unless Contractor receives prior written authorization from the Contract Administrator. Failure to do so will result in payment being withheld for services. If approved, Contractor will include an invoice that describes the work performed and the location where the work was performed, and a copy of the Contract Administrator's written authorization.

**3.2.6 Reporting Requirements.** Contractor must submit the following reports using the City's web-based contract compliance portal. Incomplete and/or delinquent reports may cause payment delays, non-payment of invoice, or both. For questions, please view the City's online tutorials on how to utilize the City's web-based contract compliance portal.

**3.2.6.1 Monthly Employment Utilization Reports.** Contractor and Contractor's subcontractors and suppliers must submit Monthly Employment Utilization Reports by the fifth (5<sup>th</sup>) day of the subsequent month.

**3.2.6.2 Monthly Invoicing and Payments.** Contractor and Contractor's subcontractors and suppliers must submit Monthly Invoicing and Payment Reports by the fifth (5<sup>th</sup>) day of the subsequent month.

**3.3 Annual Appropriation of Funds.** Contractor acknowledges that the Contract term may extend over multiple City fiscal years, and that work and compensation under this Contract is contingent on the City Council appropriating funding for and authorizing such work and compensation for those fiscal years. This Contract may be terminated at the end of the fiscal year for which sufficient funding is not appropriated and authorized. City is not obligated to pay Contractor for any amounts not duly appropriated and authorized by City Council.

**3.4 Price Adjustments.** Based on Contractor's written request and justification, the City may approve an increase in unit prices on Contractor's pricing pages consistent with the amount requested in the justification in an amount not to exceed the increase in the Consumer Price Index, San Diego Area, for All Urban Customers (CPI-U) as published by the Bureau of Labor Statistics, or 5.0%, whichever is less, during the preceding one year term. If the CPI-U is a negative number, then the unit prices shall not be adjusted for that option year (the unit prices will not be decreased). A negative CPI-U shall be counted against any subsequent increases in the CPI-U when calculating the unit prices for later option years. Contractor must provide such written request and justification no less than sixty days before the date in which City may exercise the option to renew the contract, or sixty days before the anniversary date of the Contract. Justification in support of the written request must include a description of the basis for the adjustment, the proposed effective date and reasons for said date, and the amount of the adjustment requested with documentation to support the requested change (e.g. CPI-U or 5.0%, whichever is less). City's approval of this request must be in writing.

#### **ARTICLE IV SUSPENSION AND TERMINATION**

**4.1 City's Right to Suspend for Convenience.** City may suspend all or any portion of Contractor's performance under this Contract at its sole option and for its convenience for a reasonable period of time not to exceed six (6) months. City must first give ten (10) days' written notice to Contractor of such suspension. City will pay to Contractor a sum equivalent to the reasonable value of the goods and/or services satisfactorily provided up to the date of suspension. City may rescind the suspension prior to or at six (6) months by providing Contractor with written notice of the rescission, at which time Contractor would be required to resume performance in compliance with the terms and provisions of this Contract. Contractor will be entitled to an extension of time to complete performance under the Contract equal to the length of the suspension unless otherwise agreed to in writing by the Parties.

**4.2 City's Right to Terminate for Convenience.** City may, at its sole option and for its convenience, terminate all or any portion of this Contract by giving thirty (30) days' written notice of such termination to Contractor. The termination of the Contract shall be effective upon receipt of the notice by Contractor. After termination of all or any portion of the Contract, Contractor shall: (1) immediately discontinue all affected performance (unless the notice directs otherwise); and (2) complete any and all additional work necessary for the orderly filing of

documents and closing of Contractor's affected performance under the Contract. After filing of documents and completion of performance, Contractor shall deliver to City all data, drawings, specifications, reports, estimates, summaries, and such other information and materials created or received by Contractor in performing this Contract, whether completed or in process. By accepting payment for completion, filing, and delivering documents as called for in this section, Contractor discharges City of all of City's payment obligations and liabilities under this Contract with regard to the affected performance.

**4.3 City's Right to Terminate for Default.** Contractor's failure to satisfactorily perform any obligation required by this Contract constitutes a default. Examples of default include a determination by City that Contractor has: (1) failed to deliver goods and/or perform the services of the required quality or within the time specified; (2) failed to perform any of the obligations of this Contract; and (3) failed to make sufficient progress in performance which may jeopardize full performance.

**4.3.1** If Contractor fails to satisfactorily cure a default within ten (10) calendar days of receiving written notice from City specifying the nature of the default, City may immediately cancel and/or terminate this Contract, and terminate each and every right of Contractor, and any person claiming any rights by or through Contractor under this Contract.

**4.3.2** If City terminates this Contract, in whole or in part, City may procure, upon such terms and in such manner as the Purchasing Agent may deem appropriate, equivalent goods or services and Contractor shall be liable to City for any excess costs. Contractor shall also continue performance to the extent not terminated.

**4.4 Termination for Bankruptcy or Assignment for the Benefit of Creditors.** If Contractor files a voluntary petition in bankruptcy, is adjudicated bankrupt, or makes a general assignment for the benefit of creditors, the City may at its option and without further notice to, or demand upon Contractor, terminate this Contract, and terminate each and every right of Contractor, and any person claiming rights by and through Contractor under this Contract.

**4.5 Contractor's Right to Payment Following Contract Termination.**

**4.5.1 Termination for Convenience.** If the termination is for the convenience of City an equitable adjustment in the Contract price shall be made. No amount shall be allowed for anticipated profit on unperformed services, and no amount shall be paid for an as needed contract beyond the Contract termination date.

**4.5.2 Termination for Default.** If, after City gives notice of termination for failure to fulfill Contract obligations to Contractor, it is determined that Contractor had not so failed, the termination shall be deemed to have been effected for the convenience of City. In such event, adjustment in the Contract price shall be made as provided in Section 4.3.2. City's rights and remedies are in addition to any other rights and remedies provided by law or under this Contract.

**4.6 Remedies Cumulative.** City's remedies are cumulative and are not intended to be exclusive of any other remedies or means of redress to which City may be lawfully entitled in case of any breach or threatened breach of any provision of this Contract.

## **ARTICLE V ADDITIONAL CONTRACTOR OBLIGATIONS**

**5.1 Inspection and Acceptance.** The City will inspect and accept goods provided under this Contract at the shipment destination unless specified otherwise. Inspection will be made and acceptance will be determined by the City department shown in the shipping address of the Purchase Order or other duly authorized representative of City.

**5.2 Responsibility for Lost or Damaged Shipments.** Contractor bears the risk of loss or damage to goods prior to the time of their receipt and acceptance by City. City has no obligation to accept damaged shipments and reserves the right to return damaged goods, at Contractor's sole expense, even if the damage was not apparent or discovered until after receipt.

**5.3 Responsibility for Damages.** Contractor is responsible for all damage that occurs as a result of Contractor's fault or negligence or that of its' employees, agents, or representatives in connection with the performance of this Contract. Contractor shall immediately report any such damage to people and/or property to the Contract Administrator.

**5.4 Delivery.** Delivery shall be made on the delivery day specified in the Contract Documents. The City, in its sole discretion, may extend the time for delivery. The City may order, in writing, the suspension, delay or interruption of delivery of goods and/or services.

**5.5 Delay.** Unless otherwise specified herein, time is of the essence for each and every provision of the Contract. Contractor must immediately notify City in writing if there is, or it is anticipated that there will be, a delay in performance. The written notice must explain the cause for the delay and provide a reasonable estimate of the length of the delay. City may terminate this Contract as provided herein if City, in its sole discretion, determines the delay is material.

**5.5.1** If a delay in performance is caused by any unforeseen event(s) beyond the control of the parties, City may allow Contractor to a reasonable extension of time to complete performance, but Contractor will not be entitled to damages or additional compensation. Any such extension of time must be approved in writing by City. The following conditions may constitute such a delay: war; changes in law or government regulation; labor disputes; strikes; fires, floods, adverse weather or other similar condition of the elements necessitating cessation of the performance; inability to obtain materials, equipment or labor; or other specific reasons agreed to between City and Contractor. This provision does not apply to a delay caused by Contractor's acts or omissions. Contractor is not entitled to an extension of time to perform if a delay is caused by Contractor's inability to obtain materials, equipment, or labor unless City has received, in a timely manner, documentary proof satisfactory to City of Contractor's inability to obtain materials, equipment, or labor, in which case City's approval must be in writing.

**5.6 Restrictions and Regulations Requiring Contract Modification.** Contractor shall immediately notify City in writing of any regulations or restrictions that may or will require Contractor to alter the material, quality, workmanship, or performance of the goods and/or services to be provided. City reserves the right to accept any such alteration, including any resulting reasonable price adjustments, or to cancel the Contract at no expense to the City.

**5.7 Warranties.** All goods and/or services provided under the Contract must be warranted by Contractor or manufacturer for at least twelve (12) months after acceptance by City, except automotive equipment. Automotive equipment must be warranted for a minimum of 12,000 miles or 12 months, whichever occurs first, unless otherwise stated in the Contract. Contractor is responsible to City for all warranty service, parts, and labor. Contractor is required to ensure that warranty work is performed at a facility acceptable to City and that services, parts, and labor are available and provided to meet City's schedules and deadlines. Contractor may establish a warranty service contract with an agency satisfactory to City instead of performing the warranty service itself. If Contractor is not an authorized service center and causes any damage to equipment being serviced, which results in the existing warranty being voided, Contractor will be liable for all costs of repairs to the equipment, or the costs of replacing the equipment with new equipment that meets City's operational needs.

**5.8 Industry Standards.** Contractor shall provide goods and/or services acceptable to City in strict conformance with the Contract. Contractor shall also provide goods and/or services in accordance with the standards customarily adhered to by an experienced and competent provider of the goods and/or services called for under this Contract using the degree of care and skill ordinarily exercised by reputable providers of such goods and/or services. Where approval by City, the Mayor, or other representative of City is required, it is understood to be general approval only and does not relieve Contractor of responsibility for complying with all applicable laws, codes, policies, regulations, and good business practices.

**5.9 Records Retention and Examination.** Contractor shall retain, protect, and maintain in an accessible location all records and documents, including paper, electronic, and computer records, relating to this Contract for five (5) years after receipt of final payment by City under this Contract. Contractor shall make all such records and documents available for inspection, copying, or other reproduction, and auditing by authorized representatives of City, including the Purchasing Agent or designee. Contractor shall make available all requested data and records at reasonable locations within City or County of San Diego at any time during normal business hours, and as often as City deems necessary. If records are not made available within the City or County of San Diego, Contractor shall pay City's travel costs to the location where the records are maintained and shall pay for all related travel expenses. Failure to make requested records available for inspection, copying, or other reproduction, or auditing by the date requested may result in termination of the Contract. Contractor must include this provision in all subcontracts made in connection with this Contract.

**5.9.1** Contractor shall maintain records of all subcontracts entered into with all firms, all project invoices received from Subcontractors and Suppliers, all purchases of materials and services from Suppliers, and all joint venture participation. Records shall show name, telephone number including area code, and business address of each Subcontractor and Supplier, and joint venture partner, and the total amount actually paid to each firm. Project relevant records, regardless of tier, may be periodically reviewed by the City.

**5.10 Quality Assurance Meetings.** Upon City's request, Contractor shall schedule one or more quality assurance meetings with City's Contract Administrator to discuss Contractor's performance. If requested, Contractor shall schedule the first quality assurance meeting no later than eight (8) weeks from the date of commencement of work under the Contract. At the quality assurance meeting(s), City's Contract Administrator will provide Contractor with feedback, will note any deficiencies in Contract performance, and provide Contractor with an opportunity to address and correct such deficiencies. The total number of quality assurance meetings that may be required by City will depend upon Contractor's performance.

**5.11 Duty to Cooperate with Auditor.** The City Auditor may, in his sole discretion, at no cost to the City, and for purposes of performing his responsibilities under Charter section 39.2, review Contractor's records to confirm contract compliance. Contractor shall make reasonable efforts to cooperate with Auditor's requests.

**5.12 Safety Data Sheets.** If specified by City in the solicitation or otherwise required by this Contract, Contractor must send with each shipment one (1) copy of the Safety Data Sheet (SDS) for each item shipped. Failure to comply with this procedure will be cause for immediate termination of the Contract for violation of safety procedures.

**5.13 Project Personnel.** Except as formally approved by the City, the key personnel identified in Contractor's bid or proposal shall be the individuals who will actually complete the work. Changes in staffing must be reported in writing and approved by the City.

**5.13.1 Criminal Background Certification.** Contractor certifies that all employees working on this Contract have had a criminal background check and that said employees are clear of any sexual and drug related convictions. Contractor further certifies that all employees hired by Contractor or a subcontractor shall be free from any felony convictions.

**5.13.2 Photo Identification Badge.** Contractor shall provide a company photo identification badge to any individual assigned by Contractor or subcontractor to perform services or deliver goods on City premises. Such badge must be worn at all times while on City premises. City reserves the right to require Contractor to pay fingerprinting fees for personnel assigned to work in sensitive areas. All employees shall turn in their photo identification badges to Contractor upon completion of services and prior to final payment of invoice.

**5.14 Standards of Conduct.** Contractor is responsible for maintaining standards of employee competence, conduct, courtesy, appearance, honesty, and integrity satisfactory to the City.

**5.14.1 Supervision.** Contractor shall provide adequate and competent supervision at all times during the Contract term. Contractor shall be readily available to meet with the City. Contractor shall provide the telephone numbers where its representative(s) can be reached.

**5.14.2 City Premises.** Contractor's employees and agents shall comply with all City rules and regulations while on City premises.

**5.14.3 Removal of Employees.** City may request Contractor immediately remove from assignment to the City any employee found unfit to perform duties at the City. Contractor shall comply with all such requests.

**5.15 Licenses and Permits.** Contractor shall, without additional expense to the City, be responsible for obtaining any necessary licenses, permits, certifications, accreditations, fees and approvals for complying with any federal, state, county, municipal, and other laws, codes, and regulations applicable to Contract performance. This includes, but is not limited to, any laws or regulations requiring the use of licensed contractors to perform parts of the work.

**5.16 Contractor and Subcontractor Registration Requirements.** Prior to the award of the Contract or Task Order, Contractor and Contractor's subcontractors and suppliers must register with the City's web-based vendor registration and bid management system. The City may not award the Contract until registration of all subcontractors and suppliers is complete. In the event this requirement is not met within the time frame specified by the City, the City reserves the right to rescind the Contract award and to make the award to the next responsive and responsible proposer of bidder.

## **ARTICLE VI INTELLECTUAL PROPERTY RIGHTS**

**6.1 Rights in Data.** If, in connection with the services performed under this Contract, Contractor or its employees, agents, or subcontractors, create artwork, audio recordings, blueprints, designs, diagrams, documentation, photographs, plans, reports, software, source code, specifications, surveys, system designs, video recordings, or any other original works of authorship, whether written or readable by machine (Deliverable Materials), all rights of Contractor or its subcontractors in the Deliverable Materials, including, but not limited to publication, and registration of copyrights, and trademarks in the Deliverable Materials, are the sole property of City. Contractor, including its employees, agents, and subcontractors, may not use any Deliverable Material for purposes unrelated to Contractor's work on behalf of the City without prior written consent of City. Contractor may not publish or reproduce any Deliverable Materials, for purposes unrelated to Contractor's work on behalf of the City, without the prior written consent of the City.

**6.2 Intellectual Property Rights Assignment.** For no additional compensation, Contractor hereby assigns to City all of Contractor's rights, title, and interest in and to the content of the Deliverable Materials created by Contractor or its employees, agents, or subcontractors, including copyrights, in connection with the services performed under this Contract. Contractor

shall promptly execute and deliver, and shall cause its employees, agents, and subcontractors to promptly execute and deliver, upon request by the City or any of its successors or assigns at any time and without further compensation of any kind, any power of attorney, assignment, application for copyright, patent, trademark or other intellectual property right protection, or other papers or instruments which may be necessary or desirable to fully secure, perfect or otherwise protect to or for the City, its successors and assigns, all right, title and interest in and to the content of the Deliverable Materials. Contractor also shall cooperate and assist in the prosecution of any action or opposition proceeding involving such intellectual property rights and any adjudication of those rights.

**6.3 Contractor Works.** Contractor Works means tangible and intangible information and material that: (a) had already been conceived, invented, created, developed or acquired by Contractor prior to the effective date of this Contract; or (b) were conceived, invented, created, or developed by Contractor after the effective date of this Contract, but only to the extent such information and material do not constitute part or all of the Deliverable Materials called for in this Contract. All Contractor Works, and all modifications or derivatives of such Contractor Works, including all intellectual property rights in or pertaining to the same, shall be owned solely and exclusively by Contractor.

**6.4 Subcontracting.** In the event that Contractor utilizes a subcontractor(s) for any portion of the work that comprises the whole or part of the specified Deliverable Materials to the City, the agreement between Contractor and the subcontractor shall include a statement that identifies the Deliverable Materials as a “works for hire” as described in the United States Copyright Act of 1976, as amended, and that all intellectual property rights in the Deliverable Materials, whether arising in copyright, trademark, service mark or other forms of intellectual property rights, belong to and shall vest solely with the City. Further, the agreement between Contractor and its subcontractor shall require that the subcontractor, if necessary, shall grant, transfer, sell and assign, free of charge, exclusively to City, all titles, rights and interests in and to the Deliverable Materials, including all copyrights, trademarks and other intellectual property rights. City shall have the right to review any such agreement for compliance with this provision.

**6.5 Intellectual Property Warranty and Indemnification.** Contractor represents and warrants that any materials or deliverables, including all Deliverable Materials, provided under this Contract are either original, or not encumbered, and do not infringe upon the copyright, trademark, patent or other intellectual property rights of any third party, or are in the public domain. If Deliverable Materials provided hereunder become the subject of a claim, suit or allegation of copyright, trademark or patent infringement, City shall have the right, in its sole discretion, to require Contractor to produce, at Contractor’s own expense, new non-infringing materials, deliverables or works as a means of remedying any claim of infringement in addition to any other remedy available to the City under law or equity. Contractor further agrees to indemnify, defend, and hold harmless the City, its officers, employees and agents from and against any and all claims, actions, costs, judgments or damages, of any type, alleging or threatening that any Deliverable Materials, supplies, equipment, services or works provided under this contract infringe the copyright, trademark, patent or other intellectual property or proprietary rights of any third party (Third Party Claim of Infringement). If a Third Party Claim



of Infringement is threatened or made before Contractor receives payment under this Contract, City shall be entitled, upon written notice to Contractor, to withhold some or all of such payment.

**6.6 Software Licensing.** Contractor represents and warrants that the software, if any, as delivered to City, does not contain any program code, virus, worm, trap door, back door, time or clock that would erase data or programming or otherwise cause the software to become inoperable, inaccessible, or incapable of being used in accordance with its user manuals, either automatically, upon the occurrence of licensor-selected conditions or manually on command. Contractor further represents and warrants that all third party software, delivered to City or used by Contractor in the performance of the Contract, is fully licensed by the appropriate licensor.

**6.7 Publication.** Contractor may not publish or reproduce any Deliverable Materials, for purposes unrelated to Contractor's work on behalf of the City without prior written consent from the City.

**6.8 Royalties, Licenses, and Patents.** Unless otherwise specified, Contractor shall pay all royalties, license, and patent fees associated with the goods that are the subject of this solicitation. Contractor warrants that the goods, materials, supplies, and equipment to be supplied do not infringe upon any patent, trademark, or copyright, and further agrees to defend any and all suits, actions and claims for infringement that are brought against the City, and to defend, indemnify and hold harmless the City, its elected officials, officers, and employees from all liability, loss and damages, whether general, exemplary or punitive, suffered as a result of any actual or claimed infringement asserted against the City, Contractor, or those furnishing goods, materials, supplies, or equipment to Contractor under the Contract.

## **ARTICLE VII INDEMNIFICATION AND INSURANCE**

**7.1 Indemnification.** To the fullest extent permitted by law, Contractor shall defend (with legal counsel reasonably acceptable to City), indemnify, protect, and hold harmless City and its elected officials, officers, employees, agents, and representatives (Indemnified Parties) from and against any and all claims, losses, costs, damages, injuries (including, without limitation, injury to or death of an employee of Contractor or its subcontractors), expense, and liability of every kind, nature and description (including, without limitation, incidental and consequential damages, court costs, and litigation expenses and fees of expert consultants or expert witnesses incurred in connection therewith and costs of investigation) that arise out of, pertain to, or relate to, directly or indirectly, in whole or in part, any goods provided or performance of services under this Contract by Contractor, any subcontractor, anyone directly or indirectly employed by either of them, or anyone that either of them control. Contractor's duty to defend, indemnify, protect and hold harmless shall not include any claims or liabilities arising from the sole negligence or willful misconduct of the Indemnified Parties.

**7.2 Insurance.** Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or

in connection with the performance of the work hereunder and the results of that work by Contractor, his agents, representatives, employees or subcontractors.

Contractor shall provide, at a minimum, the following:

**7.2.1 Commercial General Liability.** Insurance Services Office Form CG 00 01 covering CGL on an “occurrence” basis, including products and completed operations, property damage, bodily injury, and personal and advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.

**7.2.2 Commercial Automobile Liability.** Insurance Services Office Form Number CA 0001 covering Code 1 (any auto) or, if Contractor has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than \$1,000,000 per accident for bodily injury and property damage.

**7.2.3 Workers' Compensation.** Insurance as required by the State of California, with Statutory Limits, and Employer’s Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.

**7.2.4 Professional Liability (Errors and Omissions).** For consultant contracts, insurance appropriate to Consultant’s profession, with limit no less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate.

If Contractor maintains broader coverage and/or higher limits than the minimums shown above, City requires and shall be entitled to the broader coverage and/or the higher limits maintained by Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to City.

**7.2.5 Other Insurance Provisions.** The insurance policies are to contain, or be endorsed to contain, the following provisions:

**7.2.5.1 Additional Insured Status.** The City, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of Contractor including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to Contractor’s insurance (at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 if a later edition is used).

**7.2.5.2 Primary Coverage.** For any claims related to this contract, Contractor's insurance coverage shall be primary coverage at least as broad as ISO CG 20 01 04 13 as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by City, its officers, officials, employees, or volunteers shall be excess of Contractor's insurance and shall not contribute with it.

**7.2.5.3 Notice of Cancellation.** Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to City.

**7.2.5.4 Waiver of Subrogation.** Contractor hereby grants to City a waiver of any right to subrogation which the Workers' Compensation insurer of said Contractor may acquire against City by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

**7.2.5.5 Claims Made Policies (applicable only to professional liability).** The Retroactive Date must be shown, and must be before the date of the contract or the beginning of contract work. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, Contractor must purchase "extended reporting" coverage for a minimum of five (5) years after completion of work.

**7.3 Self Insured Retentions.** Self-insured retentions must be declared to and approved by City. City may require Contractor to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or City.

**7.4 Acceptability of Insurers.** Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-VI, unless otherwise acceptable to City.

City will accept insurance provided by non-admitted, "surplus lines" carriers only if the carrier is authorized to do business in the State of California and is included on the List of Approved Surplus Lines Insurers (LASLI list). All policies of insurance carried by non-admitted carriers are subject to all of the requirements for policies of insurance provided by admitted carriers described herein.

**7.5 Verification of Coverage.** Contractor shall furnish City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive Contractor's obligation to provide them. City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

**7.6 Special Risks or Circumstances.** City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

**7.7 Additional Insurance.** Contractor may obtain additional insurance not required by this Contract.

**7.8 Excess Insurance.** All policies providing excess coverage to City shall follow the form of the primary policy or policies including but not limited to all endorsements.

**7.9 Subcontractors.** Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors. For CGL coverage, subcontractors shall provide coverage with a format at least as broad as the CG 20 38 04 13 endorsement.

## **ARTICLE VIII BONDS**

**8.1 Payment and Performance Bond.** Prior to the execution of this Contract, City may require Contractor to post a payment and performance bond (Bond). The Bond shall guarantee Contractor's faithful performance of this Contract and assure payment to contractors, subcontractors, and to persons furnishing goods and/or services under this Contract.

**8.1.1 Bond Amount.** The Bond shall be in a sum equal to twenty-five percent (25%) of the Contract amount, unless otherwise stated in the Specifications. City may file a claim against the Bond if Contractor fails or refuses to fulfill the terms and provisions of the Contract.

**8.1.2 Bond Term.** The Bond shall remain in full force and effect at least until complete performance of this Contract and payment of all claims for materials and labor, at which time it will convert to a ten percent (10%) warranty bond, which shall remain in place until the end of the warranty periods set forth in this Contract. The Bond shall be renewed annually, at least sixty (60) days in advance of its expiration, and Contractor shall provide timely proof of annual renewal to City.

**8.1.3 Bond Surety.** The Bond must be furnished by a company authorized by the State of California Department of Insurance to transact surety business in the State of California and which has a current A.M. Best rating of at least "A-, VIII."

**8.1.4 Non-Renewal or Cancellation.** The Bond must provide that City and Contractor shall be provided with sixty (60) days' advance written notice in the event of non-renewal, cancellation, or material change to its terms. In the event of non-renewal, cancellation, or material change to the Bond terms, Contractor shall provide City with evidence of the new source of surety within twenty-one (21) calendar days after the date of the notice of non-renewal, cancellation, or material change. Failure to maintain the Bond, as required herein, in full force

and effect as required under this Contract, will be a material breach of the Contract subject to termination of the Contract.

**8.2 Alternate Security.** City may, at its sole discretion, accept alternate security in the form of an endorsed certificate of deposit, a money order, a certified check drawn on a solvent bank, or other security acceptable to the Purchasing Agent in an amount equal to the required Bond.

## **ARTICLE IX CITY-MANDATED CLAUSES AND REQUIREMENTS**

**9.1 Contractor Certification of Compliance.** By signing this Contract, Contractor certifies that Contractor is aware of, and will comply with, these City-mandated clauses throughout the duration of the Contract.

**9.1.1 Drug-Free Workplace Certification.** Contractor shall comply with City's Drug-Free Workplace requirements set forth in Council Policy 100-17, which is incorporated into the Contract by this reference.

**9.1.2 Contractor Certification for Americans with Disabilities Act (ADA) and State Access Laws and Regulations:** Contractor shall comply with all accessibility requirements under the ADA and under Title 24 of the California Code of Regulations (Title 24). When a conflict exists between the ADA and Title 24, Contractor shall comply with the most restrictive requirement (i.e., that which provides the most access). Contractor also shall comply with the City's ADA Compliance/City Contractors requirements as set forth in Council Policy 100-04, which is incorporated into this Contract by reference. Contractor warrants and certifies compliance with all federal and state access laws and regulations and further certifies that any subcontract agreement for this contract contains language which indicates the subcontractor's agreement to abide by the provisions of the City's Council Policy and any applicable access laws and regulations.

### **9.1.3 Non-Discrimination Requirements.**

**9.1.3.1 Compliance with City's Equal Opportunity Contracting Program (EOCP).** Contractor shall comply with City's EOCP Requirements. Contractor shall not discriminate against any employee or applicant for employment on any basis prohibited by law. Contractor shall provide equal opportunity in all employment practices. Prime Contractors shall ensure that their subcontractors comply with this program. Nothing in this Section shall be interpreted to hold a Prime Contractor liable for any discriminatory practice of its subcontractors.

**9.1.3.2 Non-Discrimination Ordinance.** Contractor shall not discriminate on the basis of race, gender, gender expression, gender identity, religion, national origin, ethnicity, sexual orientation, age, or disability in the solicitation, selection, hiring or treatment of subcontractors, vendors or suppliers. Contractor shall provide equal opportunity for subcontractors to participate in subcontracting opportunities. Contractor understands and agrees that violation of this clause shall be considered a material breach of the Contract and may result

in Contract termination, debarment, or other sanctions. Contractor shall ensure that this language is included in contracts between Contractor and any subcontractors, vendors and suppliers.

**9.1.3.3 Compliance Investigations.** Upon City's request, Contractor agrees to provide to City, within sixty calendar days, a truthful and complete list of the names of all subcontractors, vendors, and suppliers that Contractor has used in the past five years on any of its contracts that were undertaken within San Diego County, including the total dollar amount paid by Contractor for each subcontract or supply contract. Contractor further agrees to fully cooperate in any investigation conducted by City pursuant to City's Nondiscrimination in Contracting Ordinance. Contractor understands and agrees that violation of this clause shall be considered a material breach of the Contract and may result in Contract termination, debarment, and other sanctions.

**9.1.4 Equal Benefits Ordinance Certification.** Unless an exception applies, Contractor shall comply with the Equal Benefits Ordinance (EBO) codified in the San Diego Municipal Code (SDMC). Failure to maintain equal benefits is a material breach of the Contract.

**9.1.5 Contractor Standards.** Contractor shall comply with Contractor Standards provisions codified in the SDMC. Contractor understands and agrees that violation of Contractor Standards may be considered a material breach of the Contract and may result in Contract termination, debarment, and other sanctions.

**9.1.6 Noise Abatement.** Contractor shall operate, conduct, or construct without violating the City's Noise Abatement Ordinance codified in the SDMC.

**9.1.7 Storm Water Pollution Prevention Program.** Contractor shall comply with the City's Storm Water Management and Discharge Control provisions codified in Division 3 of Chapter 4 of the SDMC, as may be amended, and any and all applicable Best Management Practice guidelines and pollution elimination requirements in performing or delivering services at City owned, leased, or managed property, or in performance of services and activities on behalf of City regardless of location.

Contractor shall comply with the City's Jurisdictional Urban Runoff Management Plan encompassing Citywide programs and activities designed to prevent and reduce storm water pollution within City boundaries as adopted by the City Council on January 22, 2008, via Resolution No. 303351, as may be amended.

Contractor shall comply with each City facility or work site's Storm Water Pollution Prevention Plan, as applicable, and institute all controls needed while completing the services to minimize any negative impact to the storm water collection system and environment.

**9.1.8 Service Worker Retention Ordinance.** If applicable, Contractor shall comply with the Service Worker Retention Ordinance (SWRO) codified in the SDMC.

**9.1.9 Product Endorsement.** Contractor shall comply with Council Policy 000-41 which requires that other than listing the City as a client and other limited endorsements, any advertisements, social media, promotions or other marketing referring to the City as a user of a product or service will require prior written approval of the Mayor or designee. Use of the City Seal or City logos is prohibited.

**9.1.10 Business Tax Certificate.** Unless the City Treasurer determines in writing that a contractor is exempt from the payment of business tax, any contractor doing business with the City of San Diego is required to obtain a Business Tax Certificate (BTC) and to provide a copy of its BTC to the City before a Contract is executed.

**9.1.11 Equal Pay Ordinance.** Unless an exception applies, Contractor shall comply with the Equal Pay Ordinance codified in San Diego Municipal Code sections 22.4801 through 22.4809. Contractor shall certify in writing that it will comply with the requirements of the EPO.

**9.1.11.1 Contractor and Subcontract Requirement.** The Equal Pay Ordinance applies to any subcontractor who performs work on behalf of a Contractor to the same extent as it would apply to that Contractor. Any Contractor subject to the Equal Pay Ordinance shall require all of its subcontractors to certify compliance with the Equal Pay Ordinance in its written subcontracts.

## **ARTICLE X CONFLICT OF INTEREST AND VIOLATIONS OF LAW**

**10.1 Conflict of Interest Laws.** Contractor is subject to all federal, state and local conflict of interest laws, regulations, and policies applicable to public contracts and procurement practices including, but not limited to, California Government Code sections 1090, *et. seq.* and 81000, *et. seq.*, and the Ethics Ordinance, codified in the SDMC. City may determine that Contractor must complete one or more statements of economic interest disclosing relevant financial interests. Upon City's request, Contractor shall submit the necessary documents to City.

**10.2 Contractor's Responsibility for Employees and Agents.** Contractor is required to establish and make known to its employees and agents appropriate safeguards to prohibit employees from using their positions for a purpose that is, or that gives the appearance of being, motivated by the desire for private gain for themselves or others, particularly those with whom they have family, business or other relationships.

**10.3 Contractor's Financial or Organizational Interests.** In connection with any task, Contractor shall not recommend or specify any product, supplier, or contractor with whom Contractor has a direct or indirect financial or organizational interest or relationship that would violate conflict of interest laws, regulations, or policies.

**10.4 Certification of Non-Collusion.** Contractor certifies that: (1) Contractor's bid or proposal was not made in the interest of or on behalf of any person, firm, or corporation not identified; (2) Contractor did not directly or indirectly induce or solicit any other bidder or proposer to put in a sham bid or proposal; (3) Contractor did not directly or indirectly induce or

solicit any other person, firm or corporation to refrain from bidding; and (4) Contractor did not seek by collusion to secure any advantage over the other bidders or proposers.

**10.5 Hiring City Employees.** This Contract shall be unilaterally and immediately terminated by City if Contractor employs an individual who within the twelve (12) months immediately preceding such employment did in his/her capacity as a City officer or employee participate in negotiations with or otherwise have an influence on the selection of Contractor.

## **ARTICLE XI DISPUTE RESOLUTION**

**11.1 Mediation.** If a dispute arises out of or relates to this Contract and cannot be settled through normal contract negotiations, Contractor and City shall use mandatory non-binding mediation before having recourse in a court of law.

**11.2 Selection of Mediator.** A single mediator that is acceptable to both parties shall be used to mediate the dispute. The mediator will be knowledgeable in the subject matter of this Contract, if possible.

**11.3 Expenses.** The expenses of witnesses for either side shall be paid by the party producing such witnesses. All other expenses of the mediation, including required traveling and other expenses of the mediator, and the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the parties, unless they agree otherwise.

**11.4 Conduct of Mediation Sessions.** Mediation hearings will be conducted in an informal manner and discovery will not be allowed. The discussions, statements, writings and admissions will be confidential to the proceedings (pursuant to California Evidence Code sections 1115 through 1128) and will not be used for any other purpose unless otherwise agreed by the parties in writing. The parties may agree to exchange any information they deem necessary. Both parties shall have a representative attend the mediation who is authorized to settle the dispute, though City's recommendation of settlement may be subject to the approval of the Mayor and City Council. Either party may have attorneys, witnesses or experts present.

**11.5 Mediation Results.** Any agreements resulting from mediation shall be memorialized in writing. The results of the mediation shall not be final or binding unless otherwise agreed to in writing by the parties. Mediators shall not be subject to any subpoena or liability, and their actions shall not be subject to discovery.

## **ARTICLE XII MANDATORY ASSISTANCE**

**12.1 Mandatory Assistance.** If a third party dispute or litigation, or both, arises out of, or relates in any way to the services provided to the City under a Contract, Contractor, its agents, officers, and employees agree to assist in resolving the dispute or litigation upon City's request. Contractor's assistance includes, but is not limited to, providing professional consultations,



attending mediations, arbitrations, depositions, trials or any event related to the dispute resolution and/or litigation.

**12.2 Compensation for Mandatory Assistance.** City will compensate Contractor for fees incurred for providing Mandatory Assistance. If, however, the fees incurred for the Mandatory Assistance are determined, through resolution of the third party dispute or litigation, or both, to be attributable in whole, or in part, to the acts or omissions of Contractor, its agents, officers, and employees, Contractor shall reimburse City for all fees paid to Contractor, its agents, officers, and employees for Mandatory Assistance.

**12.3 Attorneys' Fees Related to Mandatory Assistance.** In providing City with dispute or litigation assistance, Contractor or its agents, officers, and employees may incur expenses and/or costs. Contractor agrees that any attorney fees it may incur as a result of assistance provided under Section 12.2 are not reimbursable.

### **ARTICLE XIII MISCELLANEOUS**

**13.1 Headings.** All headings are for convenience only and shall not affect the interpretation of this Contract.

**13.2 Non-Assignment.** Contractor may not assign the obligations under this Contract, whether by express assignment or by sale of the company, nor any monies due or to become due under this Contract, without City's prior written approval. Any assignment in violation of this paragraph shall constitute a default and is grounds for termination of this Contract at the City's sole discretion. In no event shall any putative assignment create a contractual relationship between City and any putative assignee.

**13.3 Independent Contractors.** Contractor and any subcontractors employed by Contractor are independent contractors and not agents of City. Any provisions of this Contract that may appear to give City any right to direct Contractor concerning the details of performing or providing the goods and/or services, or to exercise any control over performance of the Contract, shall mean only that Contractor shall follow the direction of City concerning the end results of the performance.

**13.4 Subcontractors.** All persons assigned to perform any work related to this Contract, including any subcontractors, are deemed to be employees of Contractor, and Contractor shall be directly responsible for their work.

**13.5 Covenants and Conditions.** All provisions of this Contract expressed as either covenants or conditions on the part of City or Contractor shall be deemed to be both covenants and conditions.

**13.6 Compliance with Controlling Law.** Contractor shall comply with all applicable local, state, and federal laws, regulations, and policies. Contractor's act or omission in violation of applicable local, state, and federal laws, regulations, and policies is grounds for contract

termination. In addition to all other remedies or damages allowed by law, Contractor is liable to City for all damages, including costs for substitute performance, sustained as a result of the violation. In addition, Contractor may be subject to suspension, debarment, or both.

**13.7 Governing Law.** The Contract shall be deemed to be made under, construed in accordance with, and governed by the laws of the State of California without regard to the conflicts or choice of law provisions thereof.

**13.8 Venue.** The venue for any suit concerning solicitations or the Contract, the interpretation of application of any of its terms and conditions, or any related disputes shall be in the County of San Diego, State of California.

**13.9 Successors in Interest.** This Contract and all rights and obligations created by this Contract shall be in force and effect whether or not any parties to the Contract have been succeeded by another entity, and all rights and obligations created by this Contract shall be vested and binding on any party's successor in interest.

**13.10 No Waiver.** No failure of either City or Contractor to insist upon the strict performance by the other of any covenant, term or condition of this Contract, nor any failure to exercise any right or remedy consequent upon a breach of any covenant, term, or condition of this Contract, shall constitute a waiver of any such breach of such covenant, term or condition. No waiver of any breach shall affect or alter this Contract, and each and every covenant, condition, and term hereof shall continue in full force and effect without respect to any existing or subsequent breach.

**13.11 Severability.** The unenforceability, invalidity, or illegality of any provision of this Contract shall not render any other provision of this Contract unenforceable, invalid, or illegal.

**13.12 Drafting Ambiguities.** The parties acknowledge that they have the right to be advised by legal counsel with respect to the negotiations, terms and conditions of this Contract, and the decision of whether to seek advice of legal counsel with respect to this Contract is the sole responsibility of each party. This Contract shall not be construed in favor of or against either party by reason of the extent to which each party participated in the drafting of the Contract.

**13.13 Amendments.** Neither this Contract nor any provision hereof may be changed, modified, amended or waived except by a written agreement executed by duly authorized representatives of City and Contractor. Any alleged oral amendments have no force or effect. The Purchasing Agent must sign all Contract amendments.

**13.14 Conflicts Between Terms.** If this Contract conflicts with an applicable local, state, or federal law, regulation, or court order, applicable local, state, or federal law, regulation, or court order shall control. Varying degrees of stringency among the main body of this Contract, the exhibits or attachments, and laws, regulations, or orders are not deemed conflicts, and the most stringent requirement shall control. Each party shall notify the other immediately upon the identification of any apparent conflict or inconsistency concerning this Contract.

**13.15 Survival of Obligations.** All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with this Contract, as well as all continuing obligations indicated in this Contract, shall survive, completion and acceptance of performance and termination, expiration or completion of the Contract.

**13.16 Confidentiality of Services.** All services performed by Contractor, and any sub-contractor(s) if applicable, including but not limited to all drafts, data, information, correspondence, proposals, reports of any nature, estimates compiled or composed by Contractor, are for the sole use of City, its agents, and employees. Neither the documents nor their contents shall be released by Contractor or any subcontractor to any third party without the prior written consent of City. This provision does not apply to information that: (1) was publicly known, or otherwise known to Contractor, at the time it was disclosed to Contractor by City; (2) subsequently becomes publicly known through no act or omission of Contractor; or (3) otherwise becomes known to Contractor other than through disclosure by City.

**13.17 Insolvency.** If Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the Contract, written notification of the bankruptcy to the Purchasing Agent and the Contract Administrator responsible for administering the Contract. This notification shall be furnished within five (5) days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of City contract numbers and contracting offices for all City contracts against which final payment has not been made. This obligation remains in effect until final payment is made under this Contract.

**13.18 No Third Party Beneficiaries.** Except as may be specifically set forth in this Contract, none of the provisions of this Contract are intended to benefit any third party not specifically referenced herein. No party other than City and Contractor shall have the right to enforce any of the provisions of this Contract.

**13.19 Actions of City in its Governmental Capacity.** Nothing in this Contract shall be interpreted as limiting the rights and obligations of City in its governmental or regulatory capacity.

## EXHIBIT D

### WAGE REQUIREMENTS: SERVICE AND MAINTENANCE CONTRACTS EXECUTED ON OR AFTER JANUARY 1, 2015

By signing this Contract, Bidder certifies that he or she is aware of the wage provisions described herein and shall comply with such provisions before commencing services.

**A. PREVAILING WAGES.** Pursuant to San Diego Municipal Code section 22.3019, construction, alteration, demolition, repair and maintenance work performed under this Contract is subject to State prevailing wage laws. For construction work performed under this Contract cumulatively exceeding \$25,000 and for alteration, demolition, repair and maintenance work performed under this Contract cumulatively exceeding \$15,000, Bidder and its subcontractors shall comply with State prevailing wage laws including, but not limited to, the requirements listed below. This requirement is in addition to the requirement to pay Living Wage pursuant to San Diego Municipal Code Chapter 2, Article 2, Division 42. Bidder must determine which per diem rate is highest for each classification of work (i.e. Prevailing Wage Rate or Living Wage Rate), and pay the highest of the two rates to their employees. Living Wage applies to workers who are not subject to Prevailing Wage Rates.

**1. Compliance with Prevailing Wage Requirements.** Pursuant to sections 1720 through 1861 of the California Labor Code, Bidder and its subcontractors shall ensure that all workers who perform work under this Contract are paid not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations (DIR). This includes work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work.

**1.1.** Copies of such prevailing rate of per diem wages are on file at the City of San Diego's Equal Opportunity Contracting Department and are available for inspection to any interested party on request. Copies of the prevailing rate of per diem wages also may be found at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Bidder and its subcontractors shall post a copy of the prevailing rate of per diem wages determination at each job site and shall make them available to any interested party upon request.

**1.2.** The wage rates determined by the DIR refer to expiration dates. If the published wage rate does not refer to a predetermined wage rate to be paid after the expiration date, then the published rate of wage shall be in effect for the life of this Contract. If the published wage rate refers to a predetermined wage rate to become effective upon expiration of the published wage rate and the predetermined wage rate is on file with the DIR, such predetermined wage rate shall become effective on the date following the expiration date and shall apply to this Contract in the same manner as if it had been published in said publication. If the predetermined wage rate refers to one or more additional expiration dates with additional predetermined wage rates, which expiration dates occur during the life of this Contract, each successive predetermined wage rate shall apply to this Contract on the date following the expiration date

of the previous wage rate. If the last of such predetermined wage rates expires during the life of this Contract, such wage rate shall apply to the balance of the Contract.

**2. Penalties for Violations.** Bidder and its subcontractors shall comply with California Labor Code section 1775 in the event a worker is paid less than the prevailing wage rate for the work or craft in which the worker is employed. This shall be in addition to any other applicable penalties allowed under Labor Code sections 1720 – 1861.

**3. Payroll Records.** Bidder and its subcontractors shall comply with California Labor Code section 1776, which generally requires keeping accurate payroll records, verifying and certifying payroll records, and making them available for inspection. Bidder shall require its subcontractors to also comply with section 1776. Bidder and its subcontractors shall submit weekly certified payroll records online via the City's web-based Labor Compliance Program. Bidder is responsible for ensuring its subcontractors submit certified payroll records to the City. Bidder and its subcontractors shall also furnish the records specified in Labor Code section 1776 directly to the Labor Commissioner in the manner required in Labor Code section 1771.4.

**4. Apprentices.** Bidder and its subcontractors shall comply with California Labor Code sections 1777.5, 1777.6 and 1777.7 concerning the employment and wages of apprentices. Bidder shall be held responsible for their compliance as well as the compliance of their subcontractors with sections 1777.5, 1777.6 and 1777.7.

**5. Working Hours.** Bidder and its subcontractors shall comply with California Labor Code sections 1810 through 1815, including but not limited to: (i) restrict working hours on public works contracts to eight hours a day and forty hours a week, unless all hours worked in excess of 8 hours per day are compensated at not less than 1½ times the basic rate of pay; and (ii) specify penalties to be imposed on design professionals and subcontractors of \$25 per worker per day for each day the worker works more than 8 hours per day and 40 hours per week in violation of California Labor Code sections 1810 through 1815.

**6. Required Provisions for Subcontracts.** Bidder shall include at a minimum a copy of the following provisions in any contract they enter into with a subcontractor: California Labor Code sections 1771, 1771.1, 1775, 1776, 1777.5, 1810, 1813, 1815, 1860 and 1861.

**7. Labor Code Section 1861 Certification.** Bidder in accordance with California Labor Code section 3700 is required to secure the payment of compensation of its employees and by signing this Contract, Bidder certifies that "I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract."

**8. Labor Compliance Program.** The City has its own Labor Compliance Program authorized in August 2011 by the DIR. The City will withhold contract payments when

payroll records are delinquent or deemed inadequate by the City or other governmental entity, or it has been established after an investigation by the City or other governmental entity that underpayment(s) have occurred. For questions or assistance, please contact the City of San Diego's Equal Opportunity Contracting Department at 619-236-6000.

**9. Contractor and Subcontractor Registration Requirements.** This project is subject to compliance monitoring and enforcement by the DIR. A Bidder or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or enter into any contract for public work, as defined in this chapter of the Labor Code unless currently registered and qualified to perform the work pursuant to Section 1725.5. In accordance with Labor Code section 1771.1(a), “[i]t is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.”

**9.1.** A Bidder's inadvertent error in listing a subcontractor who is not registered pursuant to Labor Code section 1725.5 in a response to a solicitation shall not be grounds for filing a bid protest or grounds for considering the bid non-responsive provided that any of the following apply: (1) the subcontractor is registered prior to bid opening; (2) within twenty-four hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee specified in Labor Code section 1725.5; or (3) the subcontractor is replaced by another registered contractor pursuant to Public Contract Code section 4107.

**9.2.** A Contract entered into with any Bidder or subcontractor in violation of Labor Code section 1771.1(a) shall be subject to cancellation, provided that a Contract for public work shall not be unlawful, void, or voidable solely due to the failure of the awarding body, Bidder, or any subcontractor to comply with the requirements of section 1725.5 of this section.

**9.3.** By submitting a bid or proposal to the City, Bidder is certifying that he or she has verified that all subcontractors used on this public works project are registered with the DIR in compliance with Labor Code sections 1771.1 and 1725.5, and Bidder shall provide proof of registration for themselves and all listed subcontractors to the City at the time of bid or proposal due date or upon request.

**10. Stop Order.** For Bidder or its subcontractor(s) engaging in the performance of any public work contract without having been registered in violation of Labor Code sections 1725.5 or 1771.1, the Labor Commissioner shall issue and serve a stop order prohibiting the use of the unregistered Bidder or unregistered subcontractor(s) on ALL public works until the unregistered Bidder or unregistered subcontractor(s) is registered. Failure to observe a stop order is a misdemeanor.

**11. List of all Subcontractors.** The City may ask Bidder for the most current list of subcontractors (regardless of tier), along with their DIR registration numbers,

utilized on this contract at any time during performance of this contract, and Bidder shall provide the list within ten (10) working days of the City's request. Additionally, Bidder shall provide the City with a complete list of all subcontractors utilized on this contract (regardless of tier), within ten working days of the completion of the contract, along with their DIR registration numbers. The City shall withhold final payment to Bidder until at least 30 days after this information is provided to the City.

**12. Exemptions for Small Projects.** There are limited exemptions for installation, alteration, demolition, or repair work done on projects of \$25,000 or less. The Bidder shall still comply with Labor Code sections 1720 et. seq. The only recognized exemptions are listed below:

**12.1. Registration.** The Bidder will not be required to register with the DIR for small projects. (Labor Code section 1771.1).

**12.2. Certified Payroll Records.** The records required in Labor Code section 1776 shall be required to be kept and submitted to the City of San Diego, but will not be required to be submitted online with the DIR directly. The Bidder will need to keep those records for at least three years following the completion of the contract. (Labor Code section 1771.4).

**12.3. List of all Subcontractors.** The Bidder shall not be required to hire only registered subcontractors and is exempt from submitting the list of all subcontractors that is required in section 11 above. (Labor Code section 1773.3).

**PERFORMANCE BOND, LABOR AND MATERIALMEN'S BOND**

---

**FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:**

NRC Environmental Services, Inc., a corporation, as principal, and  
Federal 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  
Two Million Six Hundred Forty Thousand Seven Hundred Ninety Dollars and 00/100  
(\$2,640,790.00--) for the faithful performance of the  
Two Million Six Hundred Forty Thousand Seven Hundred Ninety  
annexed contract, and in the sum of Dollars and 00/100(\$2,640,790.00--) for the benefit  
of laborers and materialmen designated below.

**Conditions:**

If the Principal shall faithfully perform the annexed contract with the City of 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 Article 2. Claimants, (iii) public works of improvement commencing with Civil Code Section 9100 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.

The Surety expressly agrees that the City of San Diego may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Principal.

The Surety shall not utilize the Principal in completing the improvements and work specified in the Agreement in the event the City terminates the Principal for default.



PERFORMANCE BOND, LABOR AND MATERIALMEN'S BOND (continued)

Dated August 9, 2022

Approved as to Form

NRC Environmental Services, Inc.

Principal

By 

Kathleen M. Mitchell, Attorney-in-Fact

Printed Name of Person Signing for Principal

Mara W. Elliott, City Attorney

By 

Deputy City Attorney

Federal Insurance Company

Surety

By 

Debbie Lindstrom, Attorney-in-fact

Approved:

1383 N. McDowell Blvd Ste 170

Local Address of Surety

By 

Mayor or Designee

Claudia C. Abarca, Director  
Purchasing & Contracting  
August 17, 2022

Petaluma, CA 94954

Local Address (City, State) of Surety

800-767-0650

Local Telephone No. of Surety

Premium \$ Confidential

Bond No. K41588603



POWER OF ATTORNEY

REPUBLIC SERVICES, INC., a Delaware corporation having its principal place of business at 18500 N. Allied Way, Phoenix, Arizona 85054, hereby makes, constitutes and appoints KIBBLE & PRENTICE HOLDING COMPANY dba USI INSURANCE SERVICES NORTHWEST, acting through and by any one of Debbie Lindstrom, Timothy S. Buhite, Kathleen M. Mitchell, Scott C. Alderman, Peggy A. Firth, Amber Engel, Jamie Annfield, Holly E. Uffers, or Roxana Palacios, its true and lawful attorney to sign and seal any and all surety bonds, bid bonds, performance bonds and payment bonds at or below the monetary threshold of Five Million Dollars (\$5,000,000.00) on behalf of REPUBLIC SERVICES, INC. and its subsidiaries, relating to the provision of solid waste collection, transportation, transfer, recycling, disposal and/or energy services by REPUBLIC SERVICES, INC. and its subsidiaries and affix its corporate seal to and deliver for and on behalf as surety thereon or otherwise, bonds of any of the following classes, to wit:

1. Surety bonds, bid bonds, performance bonds and payment bonds to the United States of America or agency thereof, including those required or permitted under the laws or regulations relating to Customs or Internal Revenue; license and permit bonds or other indemnity bonds under the laws, ordinances or regulations of any state, city, town, village, board, other body organization, public or private; bonds to transportation companies; lost instrument bonds; lease bonds; worker's compensation bonds; miscellaneous surety bonds, and bonds on behalf of notaries public, sheriffs, deputy sheriffs and similar public officials.
2. Surety bonds, bid bonds, performance bonds and payment bonds on behalf of REPUBLIC SERVICES, INC. and its subsidiaries in connection with bids, proposals or contracts.

REPUBLIC SERVICES, INC. hereby agrees to ratify and confirm whatsoever KIBBLE & PRENTICE HOLDING COMPANY dba USI INSURANCE SERVICES NORTHWEST shall lawfully do pursuant to this power of attorney, and until notice or revocation has been given by REPUBLIC SERVICES, INC., the acts of said attorney shall be binding on the undersigned.

IN WITNESS WHEREOF, this Power of Attorney has been signed this 23<sup>rd</sup> day of February 2022 on behalf of REPUBLIC SERVICES, INC. by its Assistant Secretary, Adrienne W. Wilhoit.

REPUBLIC SERVICES, INC.,  
a Delaware corporation

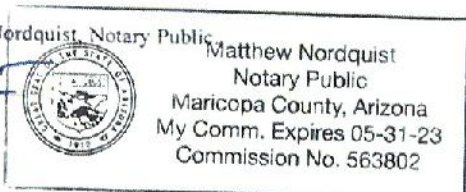
Adrienne W. Wilhoit

STATE OF ARIZONA

COUNTY OF MARICOPA

Subscribed and sworn to before me this 23<sup>rd</sup> day of FEBRUARY 2022 by Matthew Nordquist, Notary Public.

Notary Public



CERTIFICATE

I, the undersigned, John B. Nickerson, Assistant Secretary of Republic Services, Inc., a Delaware corporation, do hereby certify that the foregoing Power of Attorney is true, correct, remains in full force and effect, and has not been revoked.

IN WITNESS WHEREOF, this Certification has been signed this 9th day of August 2022 on behalf of REPUBLIC SERVICES, INC. by its Assistant Secretary, John B. Nickerson.

John B. Nickerson





# CHUBB

## Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company  
Westchester Fire Insurance Company | ACE American Insurance Company

Know All by These Presents, that FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY corporations of the Commonwealth of Pennsylvania, do each hereby constitute and appoint **Debbie Lindstrom**

Surety Bond Number: K41588603

Obligee: City of San Diego

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY have each executed and attested these presents and affixed their corporate seals on this 3<sup>rd</sup> day of January, 2022.

*Dawn M. Chloros*

Dawn M. Chloros, Assistant Secretary

*Stephen M. Haney*

Stephen M. Haney, Vice President



STATE OF NEW JERSEY

County of Hunterdon

SS.

On this 3<sup>rd</sup> day of January, 2022, before me, a Notary Public of New Jersey, personally came Dawn M. Chloros and Stephen M. Haney, to me known to be Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY, the companies which executed the foregoing Power of Attorney, and the said Dawn M. Chloros and Stephen M. Haney, being by me duly sworn, severally and each for herself and himself did depose and say that they are Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY and know the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of said Companies; and that their signatures as such officers were duly affixed and subscribed by like authority.

Notarial Seal



KATHERINE J. ADELAAR  
NOTARY PUBLIC OF NEW JERSEY  
No. 2316685  
Commission Expires July 16, 2024

*Katherine J. Adelaar*  
Notary Public

### CERTIFICATION

Resolutions adopted by the Boards of Directors of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY on August 30, 2016; WESTCHESTER FIRE INSURANCE COMPANY on December 11, 2006; and ACE AMERICAN INSURANCE COMPANY on March 20, 2009:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, Dawn M. Chloros, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY (the "Companies") do hereby certify that

- (i) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
- (ii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this August 9, 2022



*Dawn M. Chloros*

Dawn M. Chloros, Assistant Secretary

IN THE EVENT YOU WISH TO VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT:  
Telephone (908) 903-3493 Fax (908) 903-3656 e-mail: surety@chubb.com



**CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT**

**Civil Code § 1189**

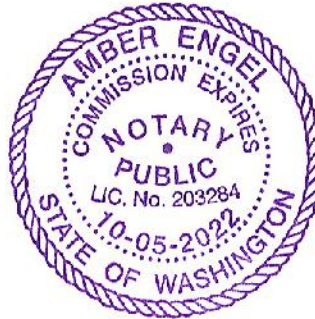
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of Washington  
County of King }

On August 9, 2022 before me, Amber Engel, Notary Public  
Date Name and Title of Notary

personally appeared Debbie Lindstrom  
Name and or Names of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(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 [Handwritten Signature]  
Notary Public Signature

Place Notary Public Seal Above

**OPTIONAL**

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

**Description of Attached Document**

Title or Type of Document \_\_\_\_\_

Document Date \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- Individual
  - Corporate Officer – Title(s): \_\_\_\_\_
  - Partner -  Limited  General
  - Guardian or Conservator
  - Attorney-in-Fact
  - Trustee
  - Other: \_\_\_\_\_
- Signer is representing \_\_\_\_\_



- Individual
  - Corporate Officer – Title(s): \_\_\_\_\_
  - Partner -  Limited  General
  - Guardian or Conservator
  - Attorney-in-Fact
  - Trustee
  - Other: \_\_\_\_\_
- Signer is representing \_\_\_\_\_



CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy or validity of that document.

State of Washington
County of King

On August 9, 2022 before me, Amber Engel, Notary Public

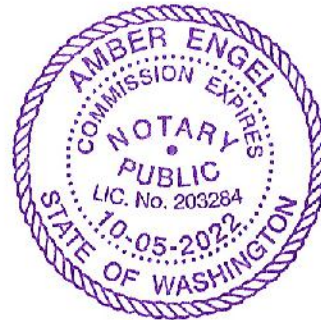
personally appeared Kathleen M. Mitchell

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(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 [Handwritten Signature]



Place Notary Public Seal Above

OPTIONAL

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

Description of Attached Document

Title or Type of Document

Document Date Number of Pages:

Signer's Name:

Form with checkboxes for Individual, Corporate Officer, Partner, Guardian or Conservator, Attorney-in-Fact, Trustee, Other. Includes a box for RIGHT THUMBPRINT OF SIGNER.

Form with checkboxes for Individual, Corporate Officer, Partner, Guardian or Conservator, Attorney-in-Fact, Trustee, Other. Includes a box for RIGHT THUMBPRINT OF SIGNER.





USI Insurance Services  
601 Union Street  
Suite 1000  
Seattle, WA 98101  
www.usi.com  
Tel: 206.441.6300

August 9, 2022

**FEDEX Express - Next Day**

Victor Murillo  
NRC Environmental, Inc.  
2950 Kurtz Street  
San Diego, CA 92110  
619-952-3628

RE: NRC Environmental Services, INC.  
\$ 2,640,790.00 Performance and Payment Bond  
City of San Diego  
for ITB 100898808-22-W Removal and Transport of Grit, Scum/Sludge, and Storm Water

Bond # K41588603

Enclosed find your bond for the above captioned obligation as requested. Please review for accuracy before forwarding the enclosed original Bond to the Obligee along with any other required paperwork.

Should you require further assistance or if you have any questions, please do not hesitate to contact me at 206-731-1200 or email us at [RSNew@usi.com](mailto:RSNew@usi.com).

Sincerely,

Amber Engel  
Surety Department

SPECIAL INSTRUCTIONS FOR THIS BOND (if left blank, there are no special instructions for your bond):

**City of San Diego**  
**CONTRACTOR STANDARDS**  
**Pledge of Compliance**

The City of San Diego has adopted a Contractor Standards Ordinance (CSO) codified in section 22.3004 of the San Diego Municipal Code (SDMC). The City of San Diego uses the criteria set forth in the CSO to determine whether a contractor (bidder or proposer) has the capacity to fully perform the contract requirements and the business integrity to justify the award of public funds. This completed Pledge of Compliance signed under penalty of perjury must be submitted with each bid and proposal. If an informal solicitation process is used, the bidder must submit this completed Pledge of Compliance to the City prior to execution of the contract. All responses must be typewritten or printed in ink. If an explanation is requested or additional space is required, Contractors must provide responses on Attachment A to the Pledge of Compliance and sign each page. Failure to submit a signed and completed Pledge of Compliance may render a bid or proposal non-responsive. In the case of an informal solicitation or cooperative procurement, the contract will not be awarded unless a signed and completed Pledge of Compliance is submitted. A submitted Pledge of Compliance is a public record and information contained within will be available for public review except to the extent that such information is exempt from disclosure pursuant to applicable law.

By signing and submitting this form, the contractor is certifying, to the best of their knowledge, that the contractor and any of its Principals have not within a five (5) year period – preceding this offer, been convicted of or had a civil judgement rendered against them for commission of a fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) contract or subcontract.

“Principal” means an officer, director, owner, partner or a person having primary management or supervisory responsibilities within the firm. The Contractor shall provide immediate written notice to the Procurement Contracting Officer handling the solicitation, at any time prior to award should they learn that this Representations and Certifications was inaccurate or incomplete.

**This form contains 10 pages, additional information may be submitted as part of *Attachment A*.**

**A. BID/PROPOSAL/SOLICITATION TITLE:**

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**B. BIDDER/PROPOSER INFORMATION:**

Legal Name		DBA	
Street Address	City	State	Zip
Contact Person, Title	Phone	Fax	

Provide the name, identity, and precise nature of the interest\* of all persons who are directly or indirectly involved\*\* in this proposed transaction (SDMC § 21.0103). Use additional pages if necessary.

\* The precise nature of the interest includes:

- the percentage ownership interest in a party to the transaction,
- the percentage ownership interest in any firm, corporation, or partnership that will receive funds from the transaction,
- the value of any financial interest in the transaction,
- any contingent interest in the transaction and the value of such interest should the contingency be satisfied, and
- any philanthropic, scientific, artistic, or property interest in the transaction.

\*\* Directly or indirectly involved means pursuing the transaction by:

- communicating or negotiating with City officers or employees,
- submitting or preparing applications, bids, proposals or other documents for purposes of contracting with the City, or
- directing or supervising the actions of persons engaged in the above activity.

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Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	

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Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	

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Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	

---

Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	

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Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	

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Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	



Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	
Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	
Name	Title/Position
City and State of Residence	Employer (if different than Bidder/Proposer)
Interest in the transaction	

**C. OWNERSHIP AND NAME CHANGES:**

1. In the past five ten (5) years, has your firm changed its name?  
**Yes**                      **No**

If **Yes**, use Attachment A to list all prior legal and DBA names, addresses, and dates each firm name was used. Explain the specific reasons for each name change.

2. Is your firm a non-profit?  
**Yes**                       **No**

If **Yes**, attach proof of status to this submission.

3. In the past five (5) years, has a firm owner, partner, or officer operated a similar business?  
**Yes**                      **No**

If **Yes**, use Attachment A to list names and addresses of all businesses and the person who operated the business. Include information about a similar business only if an owner, partner, or officer of your firm holds or has held a similar position in another firm.

**D. BUSINESS ORGANIZATION/STRUCTURE:**

Indicate the organizational structure of your firm. Fill in only one section on this page. Use Attachment A if more space is required.

**Corporation** Date incorporated: \_\_\_\_\_ State of incorporation: \_\_\_\_\_

List corporation's current officers: President: \_\_\_\_\_  
Vice Pres: \_\_\_\_\_  
Secretary: \_\_\_\_\_  
Treasurer: \_\_\_\_\_

Type of corporation: C                      Subchapter S

Is the corporation authorized to do business in California: **Yes**                      **No**

If **Yes**, after what date: \_\_\_\_\_

Is your firm a publicly traded corporation? **Yes** **No**

If **Yes**, how and where is the stock traded? \_\_\_\_\_

If **Yes**, list the name, title and address of those who own ten percent (10 %) or more of the corporation's stocks:

NOTE: On May 2, 2022, Republic Services Inc. (RSI) completed their acquisition of US Ecology. US Ecology is now a subsidiary of RSI. It is not known, at this time, if anyone owns more than 10% of RSI stock.

Do the President, Vice President, Secretary and/or Treasurer of your corporation have a third party interest or other financial interests in a business/enterprise that performs similar work, services or provides similar goods? **Yes** **No**

If **Yes**, please use Attachment A to disclose.

Please list the following:	Authorized	Issued	Outstanding
a. Number of voting shares:	_____	_____	_____
b. Number of nonvoting shares:	_____	_____	_____
c. Number of shareholders:			_____
d. Value per share of common stock:		Par	\$ _____
		Book	\$ _____
		Market	\$ _____

**Limited Liability Company** Date formed: \_\_\_\_\_ State of formation: \_\_\_\_\_

List the name, title and address of members who own ten percent (10%) or more of the company:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Partnership** Date formed: \_\_\_\_\_ State of formation: \_\_\_\_\_

List names of all firm partners:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Sole Proprietorship** Date started: \_\_\_\_\_

List all firms you have been an owner, partner or officer with during the past five (5) years. Do not include ownership of stock in a publicly traded company:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Joint Venture** Date formed: \_\_\_\_\_

List each firm in the joint venture and its percentage of ownership:

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**Note:** To be responsive, each member of a Joint Venture or Partnership must complete a separate *Contractor Standards form*.

**E. FINANCIAL RESOURCES AND RESPONSIBILITY:**

- 1. Is your firm preparing to be sold, in the process of being sold, or in negotiations to be sold?  
**Yes**                    **No**    NOTE: REPUBLIC SERVICES, INC. COMPLETED ACQUISITION OF US ECOLOGY ON MAY 2, 2022.  
If **Yes**, use Attachment A to explain the circumstances, including the buyer's name and principal contact information.
  
- 2. In the past five (5) years, has your firm been denied bonding?  
**Yes**                    **No**  
If **Yes**, use Attachment A to explain specific circumstances; include bonding company name.
  
- 3. In the past five (5) years, has a bonding company made any payments to satisfy claims made against a bond issued on your firm's behalf or a firm where you were the principal?  
**Yes**                    **No**  
If **Yes**, use Attachment A to explain specific circumstances.
  
- 4. In the past five (5) years, has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?  
**Yes**                    **No**  
If **Yes**, use Attachment A to explain specific circumstances.
  
- 5. Within the last five years, has your firm filed a voluntary petition in bankruptcy, been adjudicated bankrupt, or made a general assignment for the benefit of creditors?  
**Yes**                    **No**  
If **Yes**, use Attachment A to explain specific circumstances.
  
- 6. Are there any claims, liens or judgements that are outstanding against your firm?  
**Yes**                    **No**  
If **Yes**, please use Attachment A to provide detailed information on the action.
  
- 7. Please provide the name of your principal financial institution for financial reference. By submitting a response to this Solicitation Contractor authorizes a release of credit information for verification of financial responsibility.  
  
Name of Bank: \_\_\_\_\_  
  
Point of Contact: \_\_\_\_\_  
  
Address: \_\_\_\_\_  
  
Phone Number: \_\_\_\_\_
  
- 8. By submitting a response to a City solicitation, Contractor certifies that he or she has sufficient operating capital and/or financial reserves to properly fund the requirements identified in the solicitation. At City's request, Contractor will promptly provide to City

a copy of Contractor's most recent balance sheet and/or other necessary financial statements to substantiate financial ability to perform.

9. In order to do business in the City of San Diego, a current Business Tax Certificate is required. Business Tax Certificates are issued by the City Treasurer's Office. If you do not have one at the time of submission, one must be obtained prior to award.

Business Tax Certificate No.: \_\_\_\_\_ Year Issued: \_\_\_\_\_

**F. PERFORMANCE HISTORY:**

1. In the past five (5) years, has your firm been found civilly liable, either in a court of law or pursuant to the terms of a settlement agreement, for defaulting or breaching a contract with a government agency?

Yes No

If Yes, use Attachment A to explain specific circumstances.

2. In the past five (5) years, has a public entity terminated your firm's contract for cause prior to contract completion?

Yes No

If Yes, use Attachment A to explain specific circumstances and provide principal contact information.

3. In the past five (5) years, has your firm entered into any settlement agreement for any lawsuit that alleged contract default, breach of contract, or fraud with or against a public entity?

Yes No

If Yes, use Attachment A to explain specific circumstances.

4. Is your firm currently involved in any lawsuit with a government agency in which it is alleged that your firm has defaulted on a contract, breached a contract, or committed fraud?

Yes No

If Yes, use Attachment A to explain specific circumstances.

5. In the past five (5) years, has your firm, or any firm with which any of your firm's owners, partners, or officers is or was associated, been debarred, disqualified, removed, or otherwise prevented from bidding on or completing any government or public agency contract for any reason?

Yes No

If Yes, use Attachment A to explain specific circumstances.

6. In the past five (5) years, has your firm received a notice to cure or a notice of default on a contract with any public agency?

Yes No

If Yes, use Attachment A to explain specific circumstances and how the matter resolved.

7. Performance References:

Please provide a minimum of three (3) references familiar with work performed by your firm which was of a similar size and nature to the subject solicitation within the last five (5) years.

Please note that any references required as part of your bid/proposal submittal are in addition to those references required as part of this form.

Company Name: \_\_\_\_\_

Contact Name and Phone Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Address: \_\_\_\_\_

Contract Date: \_\_\_\_\_

Contract Amount: \_\_\_\_\_

Requirements of Contract: \_\_\_\_\_

Company Name: \_\_\_\_\_

Contact Name and Phone Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Address: \_\_\_\_\_

Contract Date: \_\_\_\_\_

Contract Amount: \_\_\_\_\_

Requirements of Contract: \_\_\_\_\_

Company Name: \_\_\_\_\_

Contact Name and Phone Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Address: \_\_\_\_\_

Contract Date: \_\_\_\_\_

Contract Amount: \_\_\_\_\_

Requirements of Contract: \_\_\_\_\_

**G. COMPLIANCE:**

1. In the past five (5) years, has your firm or any firm owner, partner, officer, executive, or manager been criminally penalized or found civilly liable, either in a court of law or pursuant to the terms of a settlement agreement, for violating any federal, state, or local law in performance of a contract, including but not limited to, laws regarding health and safety, labor and employment, permitting, and licensing laws?  
**Yes                      No**

If **Yes**, use Attachment A to explain specific circumstances surrounding each instance. Include the name of the entity involved, the specific infraction(s) or violation(s), dates of instances, and outcome with current status.

2. In the past five (5) years, has your firm been determined to be non-responsible by a public entity?  
**Yes                      No**

If **Yes**, use Attachment A to explain specific circumstances of each instance. Include the name of the entity involved, the specific infraction, dates, and outcome.

**H. BUSINESS INTEGRITY:**

1. In the past five (5) years, has your firm been convicted of or found liable in a civil suit for making a false claim or material misrepresentation to a private or public entity?

**Yes**                      **No**

If **Yes**, use Attachment A to explain specific circumstances of each instance. Include the entity involved, specific violation(s), dates, outcome and current status.

2. In the past five (5) years, has your firm or any of its executives, management personnel, or owners been convicted of a crime, including misdemeanors, or been found liable in a civil suit involving the bidding, awarding, or performance of a government contract?

**Yes**                      **No**

If **Yes**, use Attachment A to explain specific circumstances of each instance; include the entity involved, specific infraction(s), dates, outcome and current status.

3. In the past five (5) years, has your firm or any of its executives, management personnel, or owners been convicted of a federal, state, or local crime of fraud, theft, or any other act of dishonesty?

**Yes**                      **No**

If **Yes**, use Attachment A to explain specific circumstances of each instance; include the entity involved, specific infraction(s), dates, outcome and current status.

4. Do any of the Principals of your firm have relatives that are either currently employed by the City or were employed by the City in the past five (5) years?

**Yes**                      **No**

If **Yes**, please disclose the names of those relatives in Attachment A.

**I. BUSINESS REPRESENTATION:**

1. Are you a local business with a physical address within the County of San Diego?

**Yes**                      **No**

2. Are you a certified Small and Local Business Enterprise certified by the City of San Diego?

**Yes**                      **No**

Certification # \_\_\_\_\_

3. Are you certified as any of the following:

- a. Disabled Veteran Business Enterprise Certification # \_\_\_\_\_
- b. Woman or Minority Owned Business Enterprise Certification # \_\_\_\_\_
- c. Disadvantaged Business Enterprise Certification # \_\_\_\_\_

**J. WAGE COMPLIANCE:**

In the past five (5) years, has your firm been required to pay back wages or penalties for failure to comply with the federal, state or local **prevailing, minimum, or living wage laws**?    **Yes**                      **No**                      If **Yes**, use Attachment A to explain the specific circumstances of each instance. Include the entity involved, the specific infraction(s), dates, outcome, and current status.

By signing this Pledge of Compliance, your firm is certifying to the City that you will comply with the requirements of the Equal Pay Ordinance set forth in SDMC sections 22.4801 through 22.4809.

**K. STATEMENT OF SUBCONTRACTORS & SUPPLIERS:**

Please provide the names and information for all subcontractors and suppliers used in the performance of the proposed contract, and what portion of work will be assigned to each subcontractor. Subcontractors may not be substituted without the written consent of the City. Use Attachment A if additional pages are necessary. If no subcontractors or suppliers will be used, please write "Not Applicable."

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Contractor License No.: \_\_\_\_\_ DIR Registration No.: \_\_\_\_\_

Sub-Contract Dollar Amount: \$\_\_\_\_\_ (per year) \$\_\_\_\_\_ (total contract term)

Scope of work subcontractor will perform: \_\_\_\_\_

Identify whether company is a subcontractor or supplier: \_\_\_\_\_

Certification type (check all that apply): DBE DVBE ELBE MBE SLBE WBE Not Certified

Contractor must provide valid proof of certification with the response to the bid or proposal to receive participation credit.

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Contractor License No.: \_\_\_\_\_ DIR Registration No.: \_\_\_\_\_

Sub-Contract Dollar Amount: \$\_\_\_\_\_ (per year) \$\_\_\_\_\_ (total contract term)

Scope of work subcontractor will perform: \_\_\_\_\_

Identify whether company is a subcontractor or supplier: \_\_\_\_\_

Certification type (check all that apply): DBE DVBE ELBE MBE SLBE WBE Not Certified

Contractor must provide valid proof of certification with the response to the bid or proposal to receive participation credit.

**L. STATEMENT OF AVAILABLE EQUIPMENT:**

A full inventoried list of all necessary equipment to complete the work specified may be a requirement of the bid/proposal submission.

By signing and submitting this form, the Contractor certifies that all required equipment included in this bid or proposal will be made available one week (7 days) before work shall commence. In instances where the required equipment is not owned by the Contractor, Contractor shall explain how the equipment will be made available before the commencement of work. The City of San

Diego reserves the right to reject any response, in its opinion, if the Contractor has not demonstrated he or she will be properly equipped to perform the work in an efficient, effective matter for the duration of the contract period.

**M. TYPE OF SUBMISSION:** This document is submitted as:

Initial submission of *Contractor Standards Pledge of Compliance*

Initial submission of *Contractor Standards Pledge of Compliance* as part of a Cooperative agreement

Initial submission of *Contractor Standards Pledge of Compliance* as part of a Sole Source agreement

Update of prior *Contractor Standards Pledge of Compliance* dated \_\_\_\_\_.



**Complete all questions and sign below.**

Under penalty of perjury under the laws of the State of California, I certify that I have read and understand the questions contained in this Pledge of Compliance, that I am responsible for completeness and accuracy of the responses contained herein, and that all information provided is true, full and complete to the best of my knowledge and belief. I agree to provide written notice to the Purchasing Agent within five (5) business days if, at any time, I learn that any portion of this Pledge of Compliance is inaccurate. Failure to timely provide the Purchasing Agent with written notice is grounds for Contract termination.

I, on behalf of the firm, further certify that I and my firm will comply with the following provisions of SDMC section 22.3004:

(a) I and my firm will comply with all applicable local, State and Federal laws, including health and safety, labor and employment, and licensing laws that affect the employees, worksite or performance of the contract.

(b) I and my firm will notify the Purchasing Agent in writing within fifteen (15) calendar days of receiving notice that a government agency has begun an investigation of me or my firm that may result in a finding that I or my firm is or was not in compliance with laws stated in paragraph (a).

(c) I and my firm will notify the Purchasing Agent in writing within fifteen (15) calendar days of a finding by a government agency or court of competent jurisdiction of a violation by the Contractor of laws stated in paragraph (a).

(d) I and my firm will notify the Purchasing Agent in writing within fifteen (15) calendar days of becoming aware of an investigation or finding by a government agency or court of competent jurisdiction of a violation by a subcontractor of laws stated in paragraph (a).

(e) I and my firm will cooperate fully with the City during any investigation and to respond to a request for information within ten (10) working days.

**Failure to sign and submit this form with the bid/proposal shall make the bid/proposal non-responsive. In the case of an informal solicitation, the contract will not be awarded unless a signed and completed *Pledge of Compliance* is submitted.**



\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

City of San Diego  
CONTRACTOR STANDARDS  
Attachment "A"

Provide additional information in space below. Use additional Attachment "A" pages as needed. Each page must be signed.  
Print in ink or type responses and indicate question being answered.

I have read the matters and statements made in this Contractor Standards Pledge of Compliance and attachments thereto and I know the same to be true of my own knowledge, except as to those matters stated upon information or belief and as to such matters, I believe the same to be true. I certify under penalty of perjury that the foregoing is true and correct.

\_\_\_\_\_  
Print Name, Title

  
\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**EQUAL OPPORTUNITY CONTRACTING PROGRAM (EOCP)**  
**GOODS AND SERVICES CONTRACTOR REQUIREMENTS**

**I. City's Equal Opportunity Contracting Commitment.**

The City of San Diego (City) promotes equal employment and subcontracting opportunities. The City is committed to ensuring that taxpayer dollars spent on public contracts are not paid to businesses that practice discrimination in employment or subcontracting. The City encourages all companies seeking to do business with the City to share this commitment. Contractors are encouraged to take positive steps to diversify and expand their subcontractor and supplier solicitation base and to offer opportunities to all eligible business firms.

*Contractors must submit the required EOCP documentation indicated below with their bids. Contractors who fail to provide the required EOCP documentation are considered non-responsive.*

**II. Definitions.**

**Commercially Useful Function:** a Small Local Business Enterprise or Emerging Local Business Enterprise (SLBE/ELBE) performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the SLBE/ELBE shall also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

To determine whether a SLBE/ELBE is performing a commercially useful function, an evaluation will be performed of the amount of work subcontracted, normal industry practices, whether the amount the SLBE/ELBE firm is to be paid under the contract is commensurate with the work it is actually performing and the SLBE/ELBE credit claimed for its performance of the work, and other relevant factors. Specifically, a SLBE/ELBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of meaningful and useful SLBE/ELBE participation, when in similar transactions in which SLBE/ELBE firms do not participate, there is no such role performed.

**Disadvantaged Business Enterprise (DBE):** a certified business that is (1) at least fifty-one (51%) owned by socially and economically Disadvantaged Individuals, or, in the case of a publicly owned business at least fifty-one percent (51%) of the stock is owned by one or more socially and economically Disadvantaged Individuals; and (2) whose daily business operations are managed and directed by one or more socially and economically disadvantaged owners. Disadvantaged Individuals include Black Americans, Hispanic Americans, Asian Americans, and other minorities, or individual found to be disadvantaged by the Small Business Administration pursuant to Section 8 of the Small Business Reauthorization Act.

**Disabled Veteran: Disabled Veteran Business Enterprise (DVBE):** a certified business that is (1) at least fifty-one percent (51%) owned by one or more Disabled Veterans; and (2) business operations must be managed and controlled by one or more Disabled Veterans. A Disabled Veteran is a veteran of the U.S. military, naval, or air service who resides in California and has a service-connected disability of at least 10% or more. The firm shall be certified by the State of California's Department of General Services, Office of Small and Minority Business.

**Emerging Business Enterprise (EBE):** a business whose gross annual receipts do not exceed the amount set by the City Manager, and which meets all other criteria set forth in regulations implementing the City's Small and Local Business Preference Program. The City Manager shall review the threshold amount for EBEs on an annual basis, and adjust as necessary to reflect changes in the marketplace.

**Emerging Local Business Enterprise (ELBE):** a Local Business Enterprise that is also an Emerging Business Enterprise.

**Local Business Enterprise (LBE):** a business that has both a principle place of business and a significant employment presence in the County of San Diego, and that has been in operation for twelve (12) consecutive months.

**Minority Business Enterprise (MBE):** a certified business that is (1) at least fifty-one percent (51%) owned by one or more minority individuals, or, in the case of a publicly owned business at least fifty-one percent (51%) of the stock is owned by one or more minority individuals; and (2) whose daily business operations are managed and directed by one or more minorities owners. Minorities include the groups with the following ethnic origins: African, Asian Pacific, Asian Subcontinent, Hispanic, Native Alaskan, Native American, and Native Hawaiian.

**Other Business Enterprise (OBE):** any business which does not otherwise qualify as Minority, Woman, Disadvantaged, or Disabled Veteran Business Enterprise.

**Principle Place of Business:** a location wherein a business maintains a physical office and through which it obtains no less than fifty percent (50%) of its gross annual receipts.

**Significant Employee Presence:** no less than twenty-five percent (25%) of a business's total number of employees.

**Small Business Enterprise (SBE):** a business whose gross annual receipts do not exceed the amount set by the City Manager, and that meets all other criteria set forth in regulations implementing the City's Small and Local Business Preference Program. The City Manager shall review the threshold amount for SBEs on an annual basis, and adjust as necessary to reflect changes in the marketplace. A business certified as a DVBE by the State of California, and that has provided proof of such certification to the City Manager, shall be deemed to be an SBE.

**Small Local Business Enterprise (SLBE):** a Local Business Enterprise that is also a Small Business Enterprise.

**Women Business Enterprise (WBE):** a certified business that is (1) at least fifty-one percent (51 %) owned by a woman or women, or, in the case of a publicly owned business at least fifty-one percent (51%) of the stock is owned by one or more women; and (2) whose daily business operations are managed and directed by one or more women owners.

### **III. Disclosure of Discrimination Complaints.**

As part of its bid, Contractor shall provide to the City a list of all instances within the past ten (10) years where a complaint was filed or pending against Contractor in a legal or administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors, or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken. (Attachment AA).

### **IV. Workforce Report and Equal Opportunity Outreach Plan.**

- A. Work Force Report. Contractors shall submit with their bid a Work Force Report (WFR) for approval by the City. (Attachment BB). If the City determines that there are under representations when compared to County Labor Force Availability data, then the Contractor will also be required to submit an Equal Employment Opportunity Plan (EEOP) to the City for approval. Questions regarding the WFR should be directed to the Equal Opportunity Contracting Department.
- B. Duty to Comply with Equal Opportunity Outreach Plan. A Contractor for whom an EEOP has been approved by the City shall use best efforts to comply with that EEOP.

### **V. Small and Local Business Program Requirements.**

The City has adopted a Small and Local Business Preference Program for goods and services contracts. The SLBE requirements are set forth in Council Policy 100-10. For goods, services, and consultant contracts in which the Purchasing Agent is required to advertise for sealed bids in the City's official newspaper:

- A. The City shall apply a bid discount in the way of:
  - a. Five percent (5%) discount off the bid price for SLBE or ELBE prime contractors; or
  - b. Five percent (5%) discount off the bid price for prime contractors achieving the voluntary goal of twenty percent (20%) for SLBE or ELBE subcontractor participation set forth in Subsection B below.

The discount will not apply if an award to the discounted bidder would result in a total contract cost of \$50,000 in excess of the low, non-discounted bid. In the event of a tie between a discounted bidder and non-

discounted bidder, the discounted bidder will be awarded the contract. The discount shall be taken off the total contract value, including contract option years.

- B. Include a voluntary subcontractor participation requirement of 20% of the total bid price for SLBE or ELBEs.

## **VI. Maintaining Participation Levels.**

- A. Bid discounts are based on the bidder's level of participation proposed prior to the award of the goods, services, or consultant contract. Bidders are required to achieve and maintain the SLBE or ELBE participation levels throughout the duration of the goods, services, or consultant contract.
- B. If the City modifies the original specifications, the bidder shall make reasonable efforts to maintain the SLBE or ELBE participation for which the bid discount was awarded. The City must approve in writing a reduction in SLBE or ELBE participation levels.
- C. Bidder shall notify and obtain written approval from the City in advance of any reduction in subcontract scope, termination, or substitution for a designated SLBE or ELBE subcontractor.
- D. Bidder's failure to maintain SLBE or ELBE participation levels as specified in the goods, services, or consultant contract shall constitute a default and grounds for debarment under Chapter 2, Article 2, Division 8, of the San Diego Municipal Code.
- E. The remedies available to the City under Council Policy 100-10 are cumulative to all other rights and remedies available to the City.

## **VII. Certifications.**

The City accepts certifications of MBE, WBE, DBE, or DVBE from the following certifying agencies:

- A. Current certification by the State of California Department of Transportation (CALTRANS) as DBE.
- B. Current MBE or WBE certification from the California Public Utilities Commission.
- C. DVBE certification is received from the State of California's Department of General Services, Office of Small and Minority Business.
- D. Current certification by the City of Los Angeles as DBE, WBE, or MBE.

Subcontractors' valid proof of certification status e.g., copy of MBE, WBE, DBE, or DVBE certification must be submitted with the ITB. MBE, WBE, DBE, or DVBE certifications are listed for informational purposes only.

**VIII. List of Attachments.**

- AA. Contractors Certification of Pending Actions
- BB. Work Force Report

**AA. CONTRACTORS CERTIFICATION OF PENDING ACTIONS**

As part of this Contract, the Contractor must provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against the Contractor in a legal or administrative proceeding alleging that Contractor 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 Contractor has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers.
  
- The undersigned certifies that within the past 10 years the Contractor has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Contractor 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:

DATE OF CLAIM	LOCATION	DESCRIPTION OF CLAIM	LITIGATION (Y/N)	STATUS	RESOLUTION/ REMEDIAL ACTION TAKEN

Contractor Name: \_\_\_\_\_

Certified By \_\_\_\_\_ Title \_\_\_\_\_


  
 Name \_\_\_\_\_  
 Signature \_\_\_\_\_ Date \_\_\_\_\_



**EQUAL OPPORTUNITY CONTRACTING (EOC)**

1200 Third Avenue, Suite 200 • San Diego, CA 92101  
Phone: (619) 236-6000 • Fax: (619) 236-5904

**BB. WORK FORCE REPORT**

The objective of the *Equal Employment Opportunity Outreach Program*, San Diego Municipal Code Sections 22.3501 through 22.3517, is to ensure that contractors doing business with the City, or receiving funds from the City, do not engage in unlawful discriminatory employment practices prohibited by State and Federal law. Such employment practices include, but are not limited to unlawful discrimination in the following: employment, promotion or upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation, and selection for training, including apprenticeship. Contractors are required to provide a completed *Work Force Report (WFR)*.

**NO OTHER FORMS WILL BE ACCEPTED  
CONTRACTOR IDENTIFICATION**

Type of Contractor:    Construction    Vendor/Supplier    Financial Institution    Lessee/Lessor  
                                   Consultant    Grant Recipient    Insurance Company    Other

Name of Company: \_\_\_\_\_

ADA/DBA: \_\_\_\_\_

Address (Corporate Headquarters, where applicable): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Name of Company CEO: \_\_\_\_\_

Address(es), phone and fax number(s) of company facilities located in San Diego County (if different from above):

Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_ Email: \_\_\_\_\_

Type of Business: \_\_\_\_\_ Type of License: \_\_\_\_\_

The Company has appointed: \_\_\_\_\_

As its Equal Employment Opportunity Officer (EEOO). The EEOO has been given authority to establish, disseminate and enforce equal employment and affirmative action policies of this company. The EEOO may be contacted at:

Address: \_\_\_\_\_

Telephone Number: ( ) \_\_\_\_\_ Fax Number: \_\_\_\_\_ Email: \_\_\_\_\_

- One San Diego County (or Most Local County) Work Force - Mandatory
- Branch Work Force \*
- Managing Office Work Force

*Check the box above that applies to this WFR.*

*\*Submit a separate Work Force Report for all participating branches. Combine WFRs if more than one branch per county.*

I, the undersigned representative of \_\_\_\_\_

(Firm Name)

\_\_\_\_\_, \_\_\_\_\_ hereby certify that information provided  
(County) (State)

herein is true and correct. This document was executed on this \_\_\_\_\_ day of \_\_\_\_\_, 20. \_\_\_\_\_



(Authorized Signature)

ØæëYøå Ğ æí

(Print Authorized Signature Name)

**WORK FORCE REPORT – Page 2**

NAME OF FIRM: \_\_\_\_\_ DATE: \_\_\_\_\_

OFFICE(S) or BRANCH(ES): \_\_\_\_\_ COUNTY: \_\_\_\_\_

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) Black or African-American
- (2) Hispanic or Latino
- (3) Asian
- (4) American Indian or Alaska Native
- (5) Native Hawaiian or Pacific Islander
- (6) White
- (7) Other race/ethnicity; not falling into other groups

Definitions of the race and ethnicity categories can be found on Page 4

ADMINISTRATION OCCUPATIONAL CATEGORY	(1) Black or African American		(2) Hispanic or Latino		(3) Asian		(4) American Indian/ Nat. Alaskan		(5) Pacific Islander		(6) White		(7) Other Race/ Ethnicity	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
Management & Financial														
Professional														
A&E, Science, Computer														
Technical														
Sales														
Administrative Support														
Services														
Crafts														
Operative Workers														
Transportation														
Laborers*														

\*Construction laborers and other field employees are not to be included on this page

Totals Each Column														
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**Grand Total All Employees**

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: \_\_\_\_\_ DATE: \_\_\_\_\_

OFFICE(S) or BRANCH(ES): \_\_\_\_\_ COUNTY: \_\_\_\_\_

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) Black or African-American
- (2) Hispanic or Latino
- (3) Asian
- (4) American Indian or Alaska Native
- (5) Native Hawaiian or Pacific Islander
- (6) White
- (7) Other race/ethnicity; not falling into other groups

Definitions of the race and ethnicity categories can be found on Page 4

TRADE OCCUPATIONAL CATEGORY	(1) Black or African American		(2) Hispanic or Latino		(3) Asian		(4) American Indian/ Nat. Alaskan		(5) Pacific Islander		(6) White		(7) Other Race/ Ethnicity	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
Brick, Block or Stone Masons														
Carpenters														
Carpet, Floor & Tile Installers Finishers														
Cement Masons, Concrete Finishers														
Construction Laborers														
Drywall Installers, Ceiling Tile Inst														
Electricians														
Elevator Installers														
First-Line Supervisors/Managers														
Glaziers														
Helpers; Construction Trade														
Millwrights														
Misc. Const. Equipment Operators														
Painters, Const. & Maintenance														
Pipelayers, Plumbers, Pipe & Steam Fitters														
Plasterers & Stucco Masons														
Roofers														
Security Guards & Surveillance Officers														
Sheet Metal Workers														
Structural Metal Fabricators & Fitters														
Welding, Soldering & Brazing Workers														
Workers, Extractive Crafts, Miners														

Totals Each Column														
--------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Grand Total All Employees**

Indicate By Gender and Ethnicity the Number of Above Employees Who Are Disabled:

Disabled														
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

## Work Force Report

### HISTORY

The Work Force Report (WFR) is the document that allows the City of San Diego to analyze the work forces of all firms wishing to do business with the City. We are able to compare the firm's work force data to County Labor Force Availability (CLFA) data derived from the United States Census. CLFA data is a compilation of lists of occupations and includes the percentage of each ethnicity we track (American Indian or Alaska Native, Asian, Black or African-American, Native Hawaiian or Pacific Islander, White, and Other) for each occupation. Currently, our CLFA data is taken from the 2010 Census. In order to compare one firm to another, it is important that the data we receive from the consultant firm is accurate and organized in the manner that allows for this fair comparison.

### WORK FORCE & BRANCH WORK FORCE REPORTS

When submitting a WFR, especially if the WFR is for a specific project or activity, we would like to have information about the firm's work force that is actually participating in the project or activity. That is, if the project is in San Diego and the work force is from San Diego, we want a San Diego County Work Force Report<sup>1</sup>. By the same token, if the project is in San Diego, but the work force is from another county, such as Orange or Riverside County, we want a Work Force Report from that county<sup>2</sup>. If participation in a San Diego project is by work forces from San Diego County and, for example, from Los Angeles County and from Sacramento County, we ask for separate Work Force Reports representing your firm from each of the three counties.

### MANAGING OFFICE WORK FORCE

Equal Opportunity Contracting may occasionally ask for a Managing Office Work Force (MOWF) Report. This may occur in an instance where the firm involved is a large national or international firm but the San Diego or other local work force is very small. In this case, we may ask for both a local and a MOWF Report<sup>1,3</sup>. In another case, when work is done only by the Managing Office, only the MOWF Report may be necessary.<sup>3</sup>

### TYPES OF WORK FORCE REPORTS:

Please note, throughout the preceding text of this page, the superscript numbers one <sup>1</sup>, two <sup>2</sup> & three <sup>3</sup>. These numbers coincide with the types of work force report required in the example. See below:

- <sup>1</sup> One San Diego County (or Most Local County) Work Force – Mandatory in most cases
- <sup>2</sup> Branch Work Force \*
- <sup>3</sup> Managing Office Work Force

*\*Submit a separate Work Force Report for all participating branches. Combine WFRs if more than one branch per county.*

### RACE/ETHNICITY CATEGORIES

**American Indian or Alaska Native** – A person having origins in any of the peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.

**Asian** – A person having origins in any of the peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

**Black or African American** – A person having origins in any of the Black racial groups of Africa.

**Native Hawaiian or Pacific Islander** – A person having origins in any of the peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

**White** – A person having origins in any of the peoples of Europe, the Middle East, or North Africa.

**Hispanic or Latino** – A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin.

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## Exhibit A: Work Force Report Job Categories – Administration

Refer to this table when completing your firm's Work Force Report form(s).

### Management & Financial

Advertising, Marketing, Promotions, Public Relations, and Sales Managers  
Business Operations Specialists  
Financial Specialists  
Operations Specialties Managers  
Other Management Occupations  
Top Executives

### Professional

Art and Design Workers  
Counselors, Social Workers, and Other Community and Social Service Specialists  
Entertainers and Performers, Sports and Related Workers  
Health Diagnosing and Treating Practitioners  
Lawyers, Judges, and Related Workers  
Librarians, Curators, and Archivists  
Life Scientists  
Media and Communication Workers  
Other Teachers and Instructors  
Postsecondary Teachers  
Primary, Secondary, and Special Education School Teachers  
Religious Workers  
Social Scientists and Related Workers

### Architecture & Engineering, Science, Computer

Architects, Surveyors, and Cartographers  
Computer Specialists  
Engineers  
Mathematical Science Occupations  
Physical Scientists

### Technical

Drafters, Engineering, and Mapping Technicians  
Health Technologists and Technicians  
Life, Physical, and Social Science Technicians  
Media and Communication Equipment Workers

### Sales

Other Sales and Related Workers  
Retail Sales Workers  
Sales Representatives, Services  
Sales Representatives, Wholesale and Manufacturing  
Supervisors, Sales Workers

### Administrative Support

Financial Clerks  
Information and Record Clerks  
Legal Support Workers

Material Recording, Scheduling, Dispatching, and Distributing Workers  
Other Education, Training, and Library Occupations  
Other Office and Administrative Support Workers  
Secretaries and Administrative Assistants  
Supervisors, Office and Administrative Support Workers

### Services

Building Cleaning and Pest Control Workers  
Cooks and Food Preparation Workers  
Entertainment Attendants and Related Workers  
Fire Fighting and Prevention Workers  
First-Line Supervisors/Managers, Protective Service Workers  
Food and Beverage Serving Workers  
Funeral Service Workers  
Law Enforcement Workers  
Nursing, Psychiatric, and Home Health Aides  
Occupational and Physical Therapist Assistants and Aides  
Other Food Preparation and Serving Related Workers  
Other Healthcare Support Occupations  
Other Personal Care and Service Workers  
Other Protective Service Workers  
Personal Appearance Workers  
Supervisors, Food Preparation and Serving Workers  
Supervisors, Personal Care and Service Workers  
Transportation, Tourism, and Lodging Attendants

### Crafts

Construction Trades Workers  
Electrical and Electronic Equipment Mechanics, Installers, and Repairers  
Extraction Workers  
Material Moving Workers  
Other Construction and Related Workers  
Other Installation, Maintenance, and Repair Occupations  
Plant and System Operators  
Supervisors of Installation, Maintenance, and Repair Workers  
Supervisors, Construction and Extraction Workers  
Vehicle and Mobile Equipment Mechanics,

Installers, and Repairers  
Woodworkers

**Operative Workers**

Assemblers and Fabricators  
Communications Equipment Operators  
Food Processing Workers  
Metal Workers and Plastic Workers  
Motor Vehicle Operators  
Other Production Occupations  
Printing Workers  
Supervisors, Production Workers  
Textile, Apparel, and Furnishings Workers

**Transportation**

Air Transportation Workers  
Other Transportation Workers  
Rail Transportation Workers  
Supervisors, Transportation and Material  
Moving Workers  
Water Transportation Workers

**Laborers**

Agricultural Workers  
Animal Care and Service Workers  
Fishing and Hunting Workers  
Forest, Conservation, and Logging Workers  
Grounds Maintenance Workers  
Helpers, Construction Trades  
Supervisors, Building and Grounds Cleaning  
and Maintenance Workers  
Supervisors, Farming, Fishing, and Forestry  
Workers

**Exhibit B: Work Force Report Job Categories-Trade**

**Brick, Block or Stone Masons**

Brickmasons and Blockmasons  
Stonemasons

**Carpenters**

**Carpet, floor and Tile Installers and Finishers**

Carpet Installers  
Floor Layers, except Carpet, Wood and Hard  
Tiles  
Floor Sanders and Finishers  
Tile and Marble Setters

**Cement Masons, Concrete Finishers**

Cement Masons and Concrete Finishers  
Terrazzo Workers and Finishers

**Construction Laborers**

**Drywall Installers, Ceiling Tile Inst**

Drywall and Ceiling Tile Installers  
Tapers

**Electricians**

**Elevator Installers and Repairers**

**First-Line Supervisors/Managers**

First-line Supervisors/Managers of  
Construction Trades and Extraction Workers

**Glaziers**

**Helpers, Construction Trade**

Brickmasons, Blockmasons, and Tile and  
Marble Setters  
Carpenters  
Electricians  
Painters, Paperhangers, Plasterers and Stucco  
Pipelayers, Plumbers, Pipefitters and  
Steamfitters  
Roofers  
All other Construction Trades

**Millwrights**

Heating, Air Conditioning and Refrigeration  
Mechanics and Installers  
Mechanical Door Repairers  
Control and Valve Installers and Repairers  
Other Installation, Maintenance and Repair  
Occupations

**Misc. Const. Equipment Operators**

Paving, Surfacing and Tamping Equipment  
Operators  
Pile-Driver Operators  
Operating Engineers and Other Construction  
Equipment Operators

**Painters, Const. Maintenance**

Painters, Construction and Maintenance  
Paperhangers

**Pipelayers and Plumbers**

Pipelayers  
Plumbers, Pipefitters and Steamfitters

**Plasterers and Stucco Masons****Roofers****Security Guards & Surveillance Officers****Sheet Metal Workers****Structural Iron and Steel Workers****Welding, Soldering and Brazing Workers**

Welders, Cutter, Solderers and Brazers  
Welding, Soldering and Brazing Machine  
Setter, Operators and Tenders

**Workers, Extractive Crafts, Miners**

**CITY OF SAN DIEGO**

**PURCHASING & CONTRACTING DEPARTMENT**  
**1200 Third Avenue, Suite 200**  
**San Diego, CA 92101-4195**  
**Fax: (619) 236-5904**

**ADDENDUM A**

Invitation to Bid (ITB) 10089808-22-W

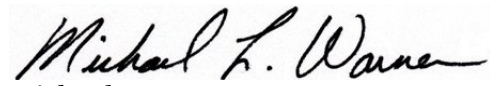
Closing Date: **July 8, 2022**  
@ 3:00 p.m.

Bid for furnishing the City of San Diego with **Removal and Transport of Grit, Scum/Sludge, and Storm Water**

The following changes to the specifications are hereby made effective as though they were originally shown and/or written:

1. Remove the original cover sheet and replace with the attached Addendum A cover sheet. (**NOTE:** Bid due date has changed to July 8, 2022.)
2. Remove the original Signature Page (pg 3 of 9) and replace with the attached Addendum A, Signature Page.
3. Add eighteen (18) pages "Questions and Answers". (**NOTE:** The questions and answers are being provided for informational purposes only, and are not part of any resulting contract from this ITB.)

CITY OF SAN DIEGO PURCHASING & CONTRACTING DEPARTMENT



Michael L. Warner  
Supervising Procurement Contracting Officer  
Purchasing and Contracting

June 29, 2022





**Invitation to Bid (ITB) for  
Removal and Transport of Grit, Scum/Sludge, and Storm Water  
Addendum A**

**Solicitation Number:** 10089808-22-W

**Solicitation Issue Date:** May 9, 2022

**Mandatory Pre-Bid Conference:** May 13, 2022 @ 9:00 a.m.  
Point Loma Wastewater Treatment Plant (PLWWTP)  
1902 Gatchell Road, San Diego, CA 92106

**Mandatory Site Inspection:** May 13, 2022 @ 9:30 a.m.  
Point Loma Wastewater Treatment Plant (PLWWTP)  
1902 Gatchell Road, San Diego, CA 92106

May 13, 2022 @ 10:45 a.m.  
South Bay Water Reclamation Plant (SWWRP)  
2411 Dairy Mart Road, San Diego, CA 92154

May 13, 2022 @ 12:30 p.m.  
North City Water Reclamation Plant (NCWRP)  
4949 Eastgate Mall, San Diego, CA 92121

**Questions and Comments Due:** May 19, 2022 @ 12:00 p.m.

**Updated Bid Due Date and Time (“Closing Date”):** July 8, 2022 @ 3:00 p.m.

**Contract Term:** One (1) year from Effective Date, with four (4) additional one (1) year period (s) as defined in Article I, Section 1.2 of the City’s General Contract Terms and Conditions

**City Contact:** Michael Warner, Supervising Procurement Contracting Officer  
1200 Third Avenue, Suite 200, San Diego, CA 92101  
[MWarner@sandiego.gov](mailto:MWarner@sandiego.gov)  
(619) 236-6154

**Submissions:** Bidder is required to provide one (1) originals and one (1) electronic copy (e.g. thumb drive or CD) of their response as described herein.

**Completed and signed ITB signature page is required, with most recent addendum listed as acknowledgement of all addenda issued.**

**Note: Emailed submissions will not be accepted. Due to COVID-19, electronic copies submitted through PlanetBids will be accepted. Instructions for electronic submissions are provided as an attachment in PlanetBids.**

**5.5 Public Agencies.** Other public agencies, as defined by California Government Code section 6500, may choose to use the terms of this Contract, subject to Contractor's acceptance. The City is not liable or responsible for any obligations related to a subsequent Contract between Contractor and another public agency.

IN WITNESS WHEREOF, this Contract is executed by City and Contractor acting by and through their authorized officers.

CONTRACTOR

CITY OF SAN DIEGO  
A Municipal Corporation

\_\_\_\_\_  
Bidder

BY:

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
Print Name: \_\_\_\_\_  
Director Purchasing & Contracting Department

\_\_\_\_\_  
City

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Telephone No.

\_\_\_\_\_  
E-Mail

BY:

Approved as to form this \_\_\_\_ day of

\_\_\_\_\_  
Signature of Bidder's Authorized  
Representative

\_\_\_\_\_, 20\_\_\_\_.  
MARA W. ELLIOTT, City Attorney

\_\_\_\_\_  
Print Name

BY: \_\_\_\_\_  
Deputy City Attorney

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**ITB 10089808-22-W, Removal and Transport of Grit, Scum/Sludge, and Storm Water  
Questions and Answers**

**Question 1:** POINT LOMA WWTP – what is meant by quantity of 30 for digester piping – 30 days, 30 units, etc.?

**Response:** Quantity is the amount of “Unit/Measure” each, required to be done approximately 30 times a year. Or approximately 30 days of work.

**Question 2:** POINT LOMA WWTP – what is meant by quantity of 10 for both grit tanks & feed pumps – 10 days, 10 individual units (seeing how there are 6 grit tanks and 3 feed pumps)?

**Response:** (Grit) Quantity is the amount of “Unit/Measure” each, required to be done approximately 10 times a year. Or approximately 10 days of work.

(Feed Pumps) Quantity is the amount of “Unit/Measure” each, required to be done approximately 10 times a year. Or approximately 10 days of work.

**Question 3:** What is City of San Diego contact information for Metro Biosolids Center? Will Metro Biosolids Center accept septic/sludge coming from North City WRP?

**Response:** Metro Biosolid Center does not accept septic sludge transported from North City Water Reclamation Plant or any third-party vendor.

**Question 4:** NORTH CITY WRP – do the waste sludge/solids generated as a result of onsite services have to be transported offsite for disposal/solidification? If so, does the City of San Diego maintain a list of approved disposal/solidification outlets that contractor has to utilize or are there any other disposal/solidification restrictions? BE ADVISED there is NOT enough room currently at this facility for the quantity of dewatering bins that would be required to accommodate this work.

**Response:** There is no offsite hauling requirements at NCWRP. It is meant to transport the solids, grit, scum, and/or vivianite on-site by decanting liquid into headworks and dumping solids on a pad or bin for the city to haul to landfill. The city will provide Bins and will haul them away.

**Question 5:** NORTH CITY WRP – what are the dimensions for the following items at this facility: (a.) Sedimentation Basins?; (b.) Blended Sludge Wet Well?; (c.) Mix Liquor Sump?; (d.) Bar Screen Channels?; (e.) Grit Influent Channel, Grit Tanks, Grit Effluent Channels?; (f.) Primary Influent Channel; (g.) Influent Pump Station

**Response:** The dimensions are as follows:

- (a.) Sedimentation Basins 208 feet X 20' X 12';
- (b.) Blended Sludge Wet Well 20' X 16' X 12';
- (c.) Mix Liquor Sump 30' X 12';
- (d.) Bar Screen Channels 20' X 6' X 12';

Addendum A  
June 29, 2022

- (e.) Grit Influent Channel 20' X 6' X 12', Grit Tanks 20' X 60' X 30', Grit Effluent Channels 12' X 6' X 20';
- (f.) Primary Influent Channel 120' X 40' X 12';
- (g.) Influent Pump Station 60' X 20' X 30'

**Question 6:** NORTH CITY WRP – what line item on the bid sheet corresponds w/aeration basins? What are dimensions of aeration basins?

Response: Aeration basins in not included in North city bid line item.

**Question 7:** NORTH CITY WRP – what is expected scope of services (trailer mounted jetter, 10,000 psi hydroblaster, etc.) for the following pipe cleaning, what is pipe condition (full, plugged, 50% capacity, etc.) and what is diameter & linear footage of piping for the following: (a.) Grit tank hopper lines to classifiers?; (b.) Blended sludge overflow line to influent pump station (bypass & recycled)?; (c.) Plant drain lines (bypass & recycled)?; (d.) Media filter waste backwash lines to influent pump station (bypass & recycled)?; (e.) Primary sludge lines (pri sed tank thru blended sludge wetwell)?; (f.) Influent pump station line to headworks

Response: Scope of services is for pipe cleaning, pipe condition could be (full, plugged, 50% capacity, etc.) the diameter & linear footage of piping is 4in, 6in 8in Pipe and larger.

- (a.) Grit tank hopper lines to classifiers 4in to 6in;
- (b.) Blended sludge overflow line to influent pump station (bypass & recycled) 12in 16in pipe;
- (c.) Plant drain lines (bypass & recycled) 6in up to 12in pipe;
- (d.) Media filter waste backwash lines to influent pump station (bypass & recycled) 36in to 48in pipe;
- (e.) Primary sludge lines (pri sed tank thru blended sludge wetwell) 12in to 24in pipe; (f.) Influent pump station line to headworks 48in pipe

**Question 8:** What equipment & materials need to be included for hourly CONFINED SPACE SPECIALIST line item?

Response: All PPE and equipment required to do a confined space entry. Note: All contractors are to follow City of San Diego confined space entry protocols.

**Question 9:** The ITB does not request resumes. Please confirm resumes are not required. Thank you.

Response: Resumes are not required.

**Question 10:** Overall Question: What is the Response Time Onsite?

Response: Response times are covered under Exhibit B, Section K.

**Question 11:** Overall Question: If disposal is offsite what if the material comes back hazardous?

Addendum A  
June 29, 2022

**Response:** This is not a hauling contract, it is meant to transport the solids, grit, scum, and/or vivianite on-site by decanting liquid into headworks and dumping solids on a pad or bin for the city to haul to landfill.

**Question 12:** Overall Question: Can the City provide Current Incumbent bid pricing?

**Response:** There is no current Contract. The previous Contract, awarded from ITB 10079310-17-K, ended 12/15/2021. The pricing from this Contract has been attached as Attachment 1.

**Question 13:** Overall Question: When does the City expect this contract to be awarded? How soon after will it start? What is the anticipated Contract start date?

**Response:** The start date shall be as soon as the Contract is executed.

**Question 14:** Overall Question: For “As Needed Technician” How many technicians should we assume? Is travel time included in this price?

**Response:** It is up to the Contractor to determine the number of Technicians needed to perform any service that will be required under the Contract. Prices bid for quarterly service shall be inclusive of all labor and travel cost (portal to portal).

**Question 15:** Overall Question: Is an On-site SSHO required at all times while onsite?

**Response:** No, but all new Contractor personnel are required to attend site specific safety and orientation.

**Question 16:** Overall Question: Are their “skilled and trained workforce requirements”?

**Response:** The Contractor is responsible for providing personal who have the skills and training necessary to accomplish the requirement of the Contract. There are no license skills required

**Question 17:** Overall Question: During the Mandatory Pre-Bid walk at North City WP, there were items that were not shown or unavailable to see ie. scum concentrators, primary sed basin influent channel, blended sludge wet well, blended sludge overflow line to influent pump station, primary sludge lines and influent pump line to headworks. Would it be possible to schedule an additional site visit to see the rest of the scope?

**Response:** The Mandatory Site Inspection only showed the exterior of the tanks. The primary sedimentation basin could be seen from the top. The blended sludge overflow line is not accessible. The primary sludge line and fluent pipeline to headworks is not accessible to be seen from the outside. All these pipelines are below ground and are inaccessible.

**Question 18:** Overall Question: Can a site map be provided for each of the sites?

**Response:** Yes, a map can be provided and has been attached as Attachment 2.

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**Question 19:** Overall Question: “As-Needed” Services: Is there a minimum # of hours for each call out for items 29,30 and 31 on the bid line items?

Response: No, there is no minimum. It is based on individual requirements for each call out.

**Question 20:** Overall Question: Who will handle lock out/tag out procedures?

Response: The City will handle lock out/tag out procedures.

**Question 21:** Overall Question: Is a bid bond required for this bid?

Response: The only type of bond required is a Performance Bond in accordance with Exhibit B (Scope of Work), Section Q (Performance Bond).

**Question 22:** PLWTP: Can Contractor stage bins at this location for waste?

Response: Yes: for PTL waste (solids, grit, scum, and/or vivianite), any other waste from another facility would be evaluated based on the waste and the amount.

**Question 23:** PLWTP: Is Contractor required to haul material off site or is City providing onsite disposal? If offsite is required, is Contractor responsible for analysis of waste and applicable disposal fees/hauling?

Response: There is no offsite hauling requirements at the Point Loma Wastewater Treatment Plant. The scope of work as covered under Exhibit B, Section L, Part 1 is meant to transport the solids, grit, scum, and/or vivianite on-site by decanting liquid into headworks and dumping solids on a pad or bin for the city to haul to landfill.

**Question 24:** PLWTP: Can all chambers/units be safely isolated?

Response: Yes, all grit chambers can be isolated for confined space entry.

**Question 25:** PLWTP: What are the acceptable downtimes of all chambers/units?

Response: It all depends on individual tanks and time of year.

**Question 26:** PLWTP: Is clean water free and available onsite by > 1.5” hook up? Non potable ok?

Response: Yes, PTL has utility water hook up available in 1.5 fire hose connection. All our utility water is potable water/with air gap for preventing contamination as utility water.

**Question 27:** PLWTP: Can the city provide a laydown/staging area for Contractor cleaning equipment for duration of the contract?

Response: Yes, there is laydown/staging area.

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**Question 28:** PLWTP: Is Contractor responsible for collecting samples or testing of materials removed?

Response: This is not a hauling contract, it is meant to transport the solids, grit, scum, and/or vivianite on-site by decanting liquid into headworks and dumping solids on a pad or bin for the city to haul to landfill.

**Question 29:** PLWTP: Should Contractor assume that all liquids be pumped down by City prior to servicing of scum/grit removal?

Response: (Scum) No, all liquids remain in the sedimentation tank for scum removal. The scum is sucked off the top and the liquid/pumped to scum concentrators.

(Grit) Yes, all liquids are pumped down from the grit chambers for grit removal.

**Question 30:** PLWTP: Is any line cleaning going to need to be captured and vacuumed up? Or are lines to be hydro-jetted only?

Response: Yes, all vivianite is to be captured and placed on the wash rack for disposal by the City.

**Question 31:** PLWTP: Please provide specs for glass pipeline.

Response: Specs have been provided as Attachment 3.

**Question 32:** PLWTP Sedimentation Basin: Dimensions?

Response: The dimensions are L-225' (x) W-65.7' (x) H-16'.

**Question 33:** PLWTP Sedimentation Basin: Can the City provide as built?

Response: The City has provided the dimensions of the Sedimentation Basin. As-Built not required for bidding.

**Question 34:** PLWTP Sedimentation Basin: How many basins are in an "each"?

Response: One

**Question 35:** PLWTP Sedimentation Basin: Estimated quantity of material?

Response: All depends on time of year, minimum could be 10yd.

**Question 36:** PLWTP Sedimentation Basin: Will all (12) sedimentation basins be serviced at the same time?

Response: No

**Question 37:** PLWTP Scum Concentrators: Dimensions?

Response: The dimensions are L-18' (x) W-6' (x) H-8'.

**Question 38:** PLWTP Scum Concentrators: Can the City provide As-Builts?

Response: The City has provided the dimensions of the Scum Concentrators. As-Builts not required for bidding.

**Question 39:** PLWTP Scum Concentrators: Frequency of servicing?

Response: Estimated to be done approximately twice a year.

**Question 40:** PLWTP Scum Concentrators: There are 2 scum concentrators on site. Should we assume that an "each" is to service both units at same time?

Response: No, only one unit at a time.

**Question 41:** PLWTP Grit Tanks: Dimensions?

Response: The dimensions are L-66' (x) W-23.6' (x) H-20'.

**Question 42:** PLWTP Grit Tanks: Can the City provide As-Builts?

Response: The City has provided the dimensions of the Grit Tanks. As-Builts not required for bidding.

**Question 43:** PLWTP Grit Tanks: Should the Contractor Assume that (1) Each on the bid line item means servicing all 6 grit tanks? Please define "Each".

Response: No, Quantity is the amount of "Unit/Measure" each, required to be done approximately 10 times a year. Or approximately 10 days of work.

**Question 44:** PLWTP Grit Tanks: According to page 6 on the scope of work, the storm water service of the 1 manhole "is usually scheduled to be completed during this same time period and/or as needed." Should Contractor assume that the storm water serviced be billed as a separate each under this line item or As-Needed Line-Item Pricing?

Response: Depending on time of year, Storm Water would be part of Grit Quantity in the amount of "Unit/Measure" each, required to be done approximately 10 times a year. Or approximately 10 days of work. If more required during rainy season, then Yes, it would be billed as separate as Needed Line-Item pricing.

**Question 45:** PLWTP Grit Tanks: What is the diameter of primary sludge lines?

Response: N/A. There is no primary sludge lines on the Grit Tanks.

**Question 46:** PLWTP Grit Tanks: Will joints/flanges be removed by City for Contractor?



Response: There is no joint removal on Grit tanks; only grit pumped out from hoppers.

**Question 47:** PLWTP Digester Piping: Line-item Pricing is in “Eaches”, should this be defined by a day for linear foot?

Response: Quantity is the amount of “Unit/Measure” each, required to be done approximately 30 times a year. Or approximately 30 days of work.

**Question 48:** PLWTP Digester Piping: Is all the digester piping 12”?

Response: No, we have also 10” and maybe some 8” but only the glass lined are cleaned under the same specs.

**Question 49:** PLWTP Digester Piping: Will the City be removing all joints and flanges?

Response: Yes, the City does all the LO/TO and removal of joints, flanges, and pipes required.

**Question 50:** PLWTP Digester Piping: Should the 8” Stainless Steel Ring Piping on the roof top of (6) digesters included in this line-item pricing?

Response: Yes. We do not currently clean the Stainless Steel piping at this time, but if needed, it would be treated the same as any other digester piping being cleaned.

**Question 51:** PLWTP Sludge Blending Tank: Can the City provide As Built?

Response: The City has provided the dimensions of the Sludge Blending Tank. As-Built not required for bidding.

**Question 52:** PLWTP Sludge Blending Tank: What are the dimensions?

Response: The diameter is 20’ and height is 32.5’, with two 36’ access hatches.

**Question 53:** PLWTP Sludge Blending Tank: What is the estimated frequency of servicing?

Response: Approximately 3 times a year.

**Question 54:** PLWTP Sludge Blending Tank: Please define “each” in the line item pricing.

Response: Quantity is the amount of “Unit/Measure” each, required to be done approximately 3 times a year. Or approximately 3 days of work.

**Question 55:** PLWTP Feed Pumps and Piping: There were 3 feed pumps and piping identified on the walk through. Is servicing all 3 of them considered “(1) Each”? Please define each.

Response: No, only one feed pump and piping (suction & discharge) at a time.

**Question 56:** PLWTP Feed Pumps and Piping: Can the City provide As Builts?

Response: The City has provided the dimensions. As-Builts not required for bidding.

**Question 57:** PLWTP Feed Pumps and Piping: What is the estimated frequency of servicing?

Response: Estimated frequency is approximately 10 per year or as needed.

**Question 58:** SBWTP: Is Contractor required to haul material off site or is City providing onsite disposal? If offsite is required, is Contractor responsible for analysis of waste and applicable disposal fees/hauling?

Response: Removed material is emptied into a designated area or into a roll-off bin at the facility. Contractor is not required to haul material off site.

**Question 59:** SBWTP: Can Contractor stage bins at this location for waste?

Response: As there is no waste hauling at SBWTP, bins are not required. Vactor trucks will empty their waste contents at a designated location on site.

**Question 60:** SBWTP: Can all chamber/units be safely isolated?

Response: Yes.

**Question 61:** SBWTP: What are acceptable downtimes of chambers/units?

Response: Chambers/units with redundancy can be offline for prolonged period. Only two chambers/units have no redundancy (Blended Sludge Wetwell and Primary Sed Basin Influent Channel) and their allowable downtime is 10 hours.

**Question 62:** SBWTP: Is clean water free and available onsite >1.5" hook up? Non potable ok?

Response: Non potable or reclaimed water is free to use with multiple hook up site with fittings >1.5".

**Question 63:** SBWTP: Can the City provide a laydown/staging area for Contractor cleaning equipment for duration of contract?

Response: Yes

**Question 64:** SBWTP: Is Contractor responsible for collecting samples or testing?

Response: SBWRP staff will be responsible for collecting samples and testing, if needed. Historically, no sampling or testing is needed at SB as removed material is emptied into a designated area on site.

**Question 65:** SBWTP: Should Contractor assume that all liquids be pumped down by City prior to servicing of scum/grit removal?

Response: Yes, SBWRP staff will pump down as much liquid that the built-in equipment will be able to.

**Question 66:** SBWTP: Line-item D on page 7 of the scope of work refers to Storm Water Service. This was not defined in scope of work or Mandatory Pre-Bid Walk. Please define what the scope is and where this cost should be identified in the line-item pricing.

Response: There is no Storm water service at SBWRP. It's being handled internally.

**Question 67:** SBWTP Sedimentation Basin Hoppers: Can the City provide As-Built?

Response: The City has provided the dimensions of the tanks and channels. As-Built not required for bidding.

**Question 68:** SBWTP Sedimentation Basin Hoppers: Dimensions of Basin?

Response: The hopper dimensions are: Top Area = 7.5 ft x 20 ft; Bottom Area = 2 ft x 20 ft; Depth = 14 ft.

**Question 69:** SBWTP Sedimentation Basin Hoppers: Please define "each" for the line-item pricing.

Response: Each is one hopper. There are 5 hoppers.

**Question 70:** SBWTP Sedimentation Basin Hoppers: What is the frequency of service?

Response: Once per year.

**Question 71:** SBWTP Grit Tanks: Dimensions of tank?

Response: Top Area = 15 ft x 30 ft; Bottom Area = 2 ft x 30 ft; Depth = 14 ft.

**Question 72:** SBWTP Grit Tanks: Frequency of service?

Response: Once per year

**Question 73:** SBWTP Grit Tanks: Define "each" in line-item bid.

Response: Each is one grit tank. There are two grit tanks.

**Question 74:** SBWTP Grit Tanks: Can the City provide As Built?

Response: The City has provided the dimensions of the Grit Tanks. As-Built not required for bidding.

**Question 75:** SBWTP Grit Tanks Influent and Influent Channel: Dimensions of tank?

Response: Cross section Area = 4 ft x 6 ft; Total length (all channels added) = 60 ft.

**Question 76:** SBWTP Grit Tanks Influent and Influent Channel: Frequency of service?

Response: Once per year

**Question 77:** SBWTP Grit Tanks Influent and Influent Channel: Define “each” in the line items bid?

Response: Each will be the Influent and Effluent channel combined. In a sense, one interconnected channel at 60 feet length.

**Question 78:** SBWTP Barscreen Influent and Effluent Channel: Can the City provide As Builts?

Response: The City has provided the dimensions of the tanks and channels. As-Builts not required for bidding.

**Question 79:** SBWTP Barscreen Influent and Effluent Channel: What is the frequency of service?

Response: Once per year

**Question 80:** SBWTP Barscreen Influent and Effluent Channel: Define “each” in line-item bid.

Response: Each is Influent and Effluent channel as one unit. There are 2 units.

**Question 81:** SBWTP Barscreen Influent and Effluent Channel: Can City provide dimensions?

Response: Cross Section Area = 3 ft x 6 ft; Total Length (Influent and Effluent) for one unit = 45 ft.

**Question 82:** SBWTP Primary Sed Basin Influent Channel: Dimensions

Response: Cross section Area = 6 ft x 8 ft ; Length = 90 ft.

**Question 83:** SBWTP Primary Sed Basin Influent Channel: Frequency

Response: Once per year

**Question 84:** SBWTP Primary Sed Basin Influent Channel: Can the City provide As Builts?

Response: The City has provided the dimensions of the tanks and channels. As-Builts not required for bidding.

**Question 85:** SBWTP Primary Sed Basin Influent Channel: Can the City define “each”?

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Response: Only one Primary Sed Basin Influent Channel.

**Question 86:** SBWTP Blended Sludge Wetwell: Can the City provide As-Builts?

Response: The City has provided the dimensions of the wetwell. As-Builts not required for bidding.

**Question 87:** SBWTP Blended Sludge Wetwell: What is the dimension of this tank?

Response: Area dimension = 3 ft x 11 ft; Depth = 25 ft.

**Question 88:** SBWTP Blended Sludge Wetwell: What is the frequency of services anticipated?

Response: Once per year

**Question 89:** SBWTP Blended Sludge Wetwell: Can the City define “each”?

Response: Only one blended sludge wetwell

**Question 90:** SBWTP Primary Sludge Lines (Primary Sedimentation Tank thru Blended Sludge Wetwell): Can the City provide more detail on this line item? Maps and As-Builts

Response: Primary Sludge Lines at 4 inches in diameter. The City has provided the dimensions. As-Builts not required for bidding.

**Question 91:** SBWTP Primary Sludge Lines (Primary Sedimentation Tank thru Blended Sludge Wetwell): Please define “each”. How should the contractor assume this line item “each”?

Response: Each will be per linear feet of sludge line cleaned or unclogged.

**Question 92:** NCWRP: Is Contractor required to haul material off site or is City providing onsite disposal? If offsite is required, is Contractor responsible for analysis of waste and applicable disposal fees/hauling?

Response: There is no offsite hauling requirements at NCWRP. The city is providing onsite disposal.

**Question 93:** NCWRP: Can Contractor stage bins on location for waste?

Response: As there is no waste hauling, bins are not required. Vector trucks will empty their waste contents at a designated location on site.

**Question 94:** NCWRP: Can all chambers/units be safely isolated?

Response: Yes, all areas where the Contractor will be pumping or factoring will be isolated.

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**Question 95:** NCWRP: What are acceptable downtimes for all chambers/units?

Response: All channels tanks and etc we'll have sufficient time allowed to perform cleaning

**Question 96:** NCWRP: Is water free and available onsite from >1.5" hook up? Potable water ok?

Response: Non potable or reclaimed water is free to use with multiple hook up site with fittings >1.5".

**Question 97:** NCWRP: Can contractor provide laydown/staging area for cleaning equipment?

Response: If contractor needs an area to lay down to clean their equipment, the area must be approved by site personnel. Contractors must have visqueen Plastic or materials preventing run off onto vegetation or onto the street.

**Question 98:** NCWRP: Is contractor responsible for collecting samples and testing?

Response: The Contractor will be responsible for their manifest and requirements to handle waste material. The City can test waste on site if needed.

**Question 99:** NCWRP: Can Contractor assume that sedimentation basins and grit tanks be pumped down by the City prior to servicing?

Response: All sedimentation tanks, grit tanks, sludge tanks, channels, wet wells will all be taken down, contractors will only remove what our pumping system will not draw out do to suction loss of these tanks.

**Question 100:** NCWRP: Item #D on Page 7 of the Scope of Work refers to Storm Water Service. This asset was not identified on the bid walk, can you please define this scope of work and where it should be bid. Which line item will include this pricing? Or will this be listed as As-needed Technician and As Needed Operator?

Response: Storm water cleaning services is to remove any large excess of debris from out of the storm drain caught on site by engineering measures to trap leaves debris and sedimentation.

**Question 101:** NCWRP Sedimentation Basins: Dimensions?

Response: The dimensions of the Primary Sedimentation Basin are 208 feet X 20' X 12'. The dimensions of the Aeration basin are 400' X 25' X 30 L X W X H.

**Question 102:** NCWRP Sedimentation Basins: Quantity of basins in an "Each". Please define an "each" in line item bid.

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Response: Each refers to each time service is required. There are 20 Primary Sedimentation Basins.

**Question 103:** NCWRP Sedimentation Basins: Can the City provide As-Builts?

Response: The City has provided the dimensions of the Sedimentation Basin. As-Builts not required for bidding.

**Question 104:** NCWRP Sedimentation Basins: What are the dimensions of the basins?

Response: Please refer to the response to Question 101.

**Question 105:** NCWRP Sedimentation Basins: What is the estimated dimensions?

Response: Please refer to the response to Question 101.

**Question 106:** NCWRP Scum Concentrators: Dimensions?

Response: The dimensions of the Scum Concentrators are 8' X 12'.

**Question 107:** NCWRP Scum Concentrators: Quantity of servicing in an "each"? Please define "each".

Response: Each refers to each time the service is performed. With two (2) Scum Concentrators, the Pricing Schedule reflects 2 each.

**Question 108:** NCWRP Scum Concentrators: Can the City provide As-Builts?

Response: The City has provided the dimensions of the Scum Concentrators. As-Builts not required for bidding.

**Question 109:** NCWRP Scum Concentrators: Frequency of Service?

Response: Cleaning is typically performed one (1) time per year, or on an as-needed basis.

**Question 110:** NCWRP Grit Tanks: Please define and Each for the line item pricing.

Response: Each refers to each time the service is performed. With two (2) Grit Tanks, the Pricing Schedule reflects 2 each.

**Question 111:** NCWRP Grit Tanks: Dimensions?

Response: The dimensions of the Grit Tanks are 20' X 60' X 30'.

**Question 112:** NCWRP Grit Tanks: Can the City provide As Builts?

Response: The City has provided the dimensions of the Grit Tanks. As-Builts not required for bidding.

**Question 113:** NCWRP Grit Tanks Influent and Effluent Channel: Dimensions?

Response: The dimensions of the Grit Influent Channel is 20' X 6' X 12'. The dimensions of the Grit Effluent Channel is 12' X 6' 20'.

**Question 114:** NCWRP Grit Tanks Influent and Effluent Channel: Can the City provide As Builts?

Response: The City has provided the dimensions of the tanks and channels. As-Builts not required for bidding.

**Question 115:** NCWRP Grit Tanks Influent and Effluent Channel: Please define "each".

Response: Each refers to each time the service is performed.

**Question 116:** NCWRP Grit Tanks hopper lines to the classifiers: Will the City be removing joints to create access?

Response: Yes, the City will remove joints to provide access.

**Question 117:** NCWRP Barscreen Influent and Effluent Channel: Dimensions?

Response: Each channel is 8'w X 10'd x 20'L

**Question 118:** NCWRP Barscreen Influent and Effluent Channel: Frequency of service

Response: Cleaning is typically performed on an as-needed basis.

**Question 119:** NCWRP Barscreen Influent and Effluent Channel: Can the City provide As Builts?

Response: The City has provided the dimensions of the channels. As-Builts not required for bidding.

**Question 120:** NCWRP Barscreen Influent and Effluent Channel: Can the City define "each"?

Response: Influent flow comes in from the effluent pump station the flow is screened at the bar screens screening out large material and allowing the process water to flow through which becomes the affluent flow channel going into the grit hopper.

**Question 121:** NCWRP Primary Sed Basin Influent Channel: Dimension?

Response: 20'w X 12'h X 208'L

**Question 122:** NCWRP Primary Sed Basin Influent Channel: Can the City provide As Builts?



Response: The City has provided the dimensions of the channel. As-Builts not required for bidding.

**Question 123:** NCWRP Primary Sed Basin Influent Channel: Frequency of Service?

Response: Cleaning is typically performed one (1) time per year, or on an as-needed basis.

**Question 124:** NCWRP Primary Sed Basin Influent Channel: Can the City define “each”?

Response: Influent flow which has already been screened by the bar screens of debris, rags, grit and organics has already been removed and now it's in the process of primary sedimentation with sludge and scum removal the tanks purpose is to remove floatable and settleable from the tanks.

**Question 125:** NCWRP Blended Sludge Wetwell: Dimensions?

Response: 10' X 20'

**Question 126:** NCWRP Blended Sludge Wetwell: Frequency of service?

Response: Cleaning is typically performed one (1) time per year, or on an as-needed basis.

**Question 127:** NCWRP Blended Sludge Wetwell: Can the City provide As-Builts?

Response: The City has provided the dimensions of the wetwell. As-Builts not required for bidding.

**Question 128:** NCWRP Blended Sludge Wetwell: Can the City define “each”?

Response: Waste activated sludge primary sedimentation sludge and secondary scum is accumulated here to be pumped over to MBC for processing

**Question 129:** NCWRP Blended sludge overflow line to influent pump station (bypass and recycled): Estimated length of overflow lines?

Response: 400'

**Question 130:** NCWRP Blended sludge overflow line to influent pump station (bypass and recycled): Define “each” of sludge line cleaning.

Response: North city blended sludge overflow line goes from the blended sludge building to the plant drain system then is separated into 2 lines: One line is redirected back to the plant (recycled) and the other line is bypassed to point Loma (bypass). Each refers to each time the service is performed.

**Question 131:** NCWRP Blended sludge overflow line to influent pump station (bypass and recycled): Frequency of service?

Response: Twice a year

**Question 132:** NCWRP Blended sludge overflow line to influent pump station (bypass and recycled): Will the City remove joints/flanges creating access for contractor cleaning?

Response: Yes.

**Question 133:** NCWRP Blended sludge overflow line to influent pump station (bypass and recycled): Diameter of this overflow line?

Response: 16 inch

**Question 134:** NCWRP Blended sludge overflow line to influent pump station (bypass and recycled): Estimated length of line in an each?

Response: 880 feet

**Question 135:** NCWRP Plant drain lines (bypass or recycled): Can the City define “each”?

Response: The plant drain system collects anything draining around the plant and the blended sludge overflow as well. The wetwell is in the influent pump station building. The line can be redirected back to the plant (recycled) or sent to point Loma (bypass). There is one line that gets divided in 2 depending if the plant wants to treat or send to Point Loma. Each refers to each time the service is performed.

**Question 136:** NCWRP Plant drain lines (bypass or recycled): Can are the diameters of this pipe?

Response: The system has multiple diameters as a design (6, 10, 15, 18 and 21-inches diameters). The size depends on the location and connection to the system. Pipes can go from a size to another one.

**Question 137:** NCWRP Plant drain lines (bypass or recycled): Will the City remove joints/flanges creating access for Contractor cleaning?

Response: Yes

**Question 138:** NCWRP Plant drain lines (bypass or recycled): Estimated length of line in an each?

Response: The plant drain combined total estimated length is 3000 feet.

**Question 139:** NCWRP Media Filter waste backwash lines to Influent pump station (bypass and recycled): Can the City define “Each”?

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Response: The waste backwash collects filters wastewater after a backwash. This goes to the influent pump station building. The line can be redirected back to the plant (recycled) or sent to point Loma (bypass). There is one line that gets divided in 2 depending if the plant wants to treat or send to Point Loma. Each refers to each time the service is performed.

**Question 140:** NCWRP Media Filter waste backwash lines to Influent pump station (bypass and recycled): Can the City provide maps and as builts for this line item?

Response: The City has provided the dimensions. As-Builts not required for bidding.

**Question 141:** NCWRP Media Filter waste backwash lines to Influent pump station (bypass and recycled): What is the frequency of service?

Response: Twice a year

**Question 142:** NCWRP Primary sludge lines (prim Sed Tank thru Blended Sludge wetwell): Can the City define "Each"?

Response: There is only one line from the tanks to the blended sludge wetwells. Each refers to each time the service is performed.

**Question 143:** NCWRP Primary sludge lines (prim Sed Tank thru Blended Sludge wetwell): Can the City provide As Builts?

Response: This line is being currently upgraded. An updated As-Built won't be available until after the expansion upgrade.

**Question 144:** NCWRP Primary sludge lines (prim Sed Tank thru Blended Sludge wetwell): What is the frequency of service?

Response: Twice a year

**Question 145:** NCWRP Mix Liquor Scum Pump: Frequency of service?

Response: Twice a year

**Question 146:** NCWRP Mix Liquor Scum Pump: Dimensions of asset?

Response: 16 ft X 11 ft X 13 ft

**Question 147:** NCWRP Mix Liquor Scum Pump: Can the City provide As-Builts?

Response: The City has provided the dimensions of the Mix Liquor Scum Pump. As-Builts not required for bidding.

**Question 148:** NCWRP Mix Liquor Scum Pump: Can the City define "each"?

Response: There is one Mix liquor scum pump sump. Each refers to each time the service is performed.

**Question 149:** NCWRP Influent Pump Station Wetwell: Can the City provide As-Builts?

Response: The City has provided the dimensions of the wetwell. As-Builts not required for bidding.

**Question 150:** NCWRP Influent Pump Station Wetwell: What is the estimated quantity of material?

Response: Unknown. The wetwell has not been cleaned for a long time.

**Question 151:** NCWRP Influent Pump Station Wetwell: Dimensions of wet well?

Response: The dimensions are 84 ft X 18 ft X 8 ft

**Question 152:** NCWRP Influent Pump Station Wetwell: Can the City define “each”?

Response: There is one influent pump station wetwell. Each refers to each time the service is performed.

**Question 153:** NCWRP Influent pump station line to headworks: Can the City define “each”?

Response: There is one line (pipe) from the influent pump station to headworks. Each refers to each time the service is performed.

**Question 154:** NCWRP Influent pump station line to headworks: Can the City provide As Builts?

Response: This line is being currently upgraded. An updated As-Built won't be available until after the expansion upgrade.

**Question 155:** Line Item 1 Sedimentation Basins at PLWTP calls for 100 eaches. There are 12 sedimentation basins, but the scope refers to the scum/sludge service to be performed 2x a year. Can you please confirm that 100 eaches is the correct amount?

Response: 100 units/ meaning each unit is done approximately 100 times a year. So, each Sedimentation basin is one unit.

#### IV. PRICING PAGE(S)

##### A. City's Estimated Need.

Estimated Annual Quantities are estimates and are not guaranteed. Prices quoted on the Pricing Page(s) shall include all costs required to perform and complete the service as specified in this contract, to include but not be limited to Vactor Guzzler, Hydro Blaster, or equal, set-up, tear down, removal of Contractor provided transport system, labor, related equipment, overhead, administrative costs, parking, travel, meeting expenses, etc.

Unit prices shall be based on the Unit of Measure (U/M) as specified on the pricing pages. Any changes to the unit of measure made by the bidder may be cause for the item to be rejected as non-responsive. The City intends to award one contract to the lowest responsible bidder meeting all the requirements of this ITB.

##### 1. Point Loma Wastewater Treatment Plant

Item No.	Est. Annual Qty.	Unit of Measure	Description	Unit Cost	Extension (Est. Annual Qty. X Unit Cost)
1.	12	EA	Sedimentation Basins	\$ 3,950. <sup>00</sup>	\$ 47,400. <sup>00</sup>
2.	2	EA	Scum Concentrators	\$ 9,530. <sup>00</sup>	\$ 19,060. <sup>00</sup>
3.	6	EA	Grit Tanks	\$ 7,410. <sup>00</sup>	\$ 44,460. <sup>00</sup>
4.	8	EA	Digesters and Piping	\$ 17,080. <sup>00</sup>	\$ 136,640. <sup>00</sup>
5.	1	EA	Sludge Blending Tank	\$ 28,290. <sup>00</sup>	\$ 28,290. <sup>00</sup>
6.	3	EA	Feed Pumps and Piping	\$ 9,785. <sup>00</sup>	\$ 29,355. <sup>00</sup>
<b>1. TOTAL</b>					<b>\$ 305,205.<sup>00</sup></b>

2. South Bay Water Reclamation Plant

Item No.	Est. Annual Qty.	Unit of Measure	Description	Unit Cost	Extension (Est. Annual Qty. X Unit Cost)
7.	5	EA	Sedimentation Basins	\$ 4,950. <sup>00</sup>	\$ 24,750. <sup>00</sup>
8.	2	EA	Grit Tanks	\$ 8,188. <sup>00</sup>	\$ 16,376. <sup>00</sup>
2. TOTAL					\$ 41,126. <sup>00</sup>

3. North City Water Reclamation Plant

Item No.	Est. Annual Qty.	Unit of Measure	Description	Unit Cost	Extension (Est. Annual Qty. X Unit Cost)
9.	2	EA	Grit Tanks	\$ 5,045. <sup>00</sup>	\$ 10,090. <sup>00</sup>
10.	2	EA	Channel Scum Service	\$ 5,045. <sup>00</sup>	\$ 10,090. <sup>00</sup>
3. TOTAL					\$ 20,180. <sup>00</sup>

4. As-Needed Labor and Equipment Costs

Item No.	Est. Annual Qty.	U/M	Description	Unit Cost	Extension (Est. Annual Qty. x Unit Cost)
11.	120	HR	As needed, one (1) Operator, one (1) Vactor Guzzler, or equal, that can pressurize off solids. Equipment required includes, but not limited to,	\$ 312. <sup>50</sup>	\$ 37,500. <sup>00</sup>

Item No.	Est. Annual Qty.	U/M	Description	Unit Cost	Extension (Est. Annual Qty. x Unit Cost)
			hard hose for Scum/Sludge, Grit and/or Storm Water Service as specified.		
12.	360*	HR	As needed, Technician(s) to assist with hoses or other tasks as required to perform Scum/Sludge, Grit, and Storm Water Services as specified.	\$ 81.00	\$ 29,160.00
13.	32	HR	As needed, one (1) Confined Space Specialist typically required one time a year when servicing Grit tanks.	\$ 82.50	\$ 2,640.00
14.	120	HR	As needed, one (1) Confined Space Specialist required for Wet Well and Channel cleaning services as specified.	\$ 82.50	\$ 9,900.00
15.	360	HR	As needed, Technician(s) to assist with Wet Well and Channel cleaning, services as specified.	\$ 81.00	\$ 29,160.00
				4. TOTAL	\$ 108,360.00

\*Estimated three (3) technicians at 120 hours each annually.

Pricing Page Summary of Costs

TOTAL

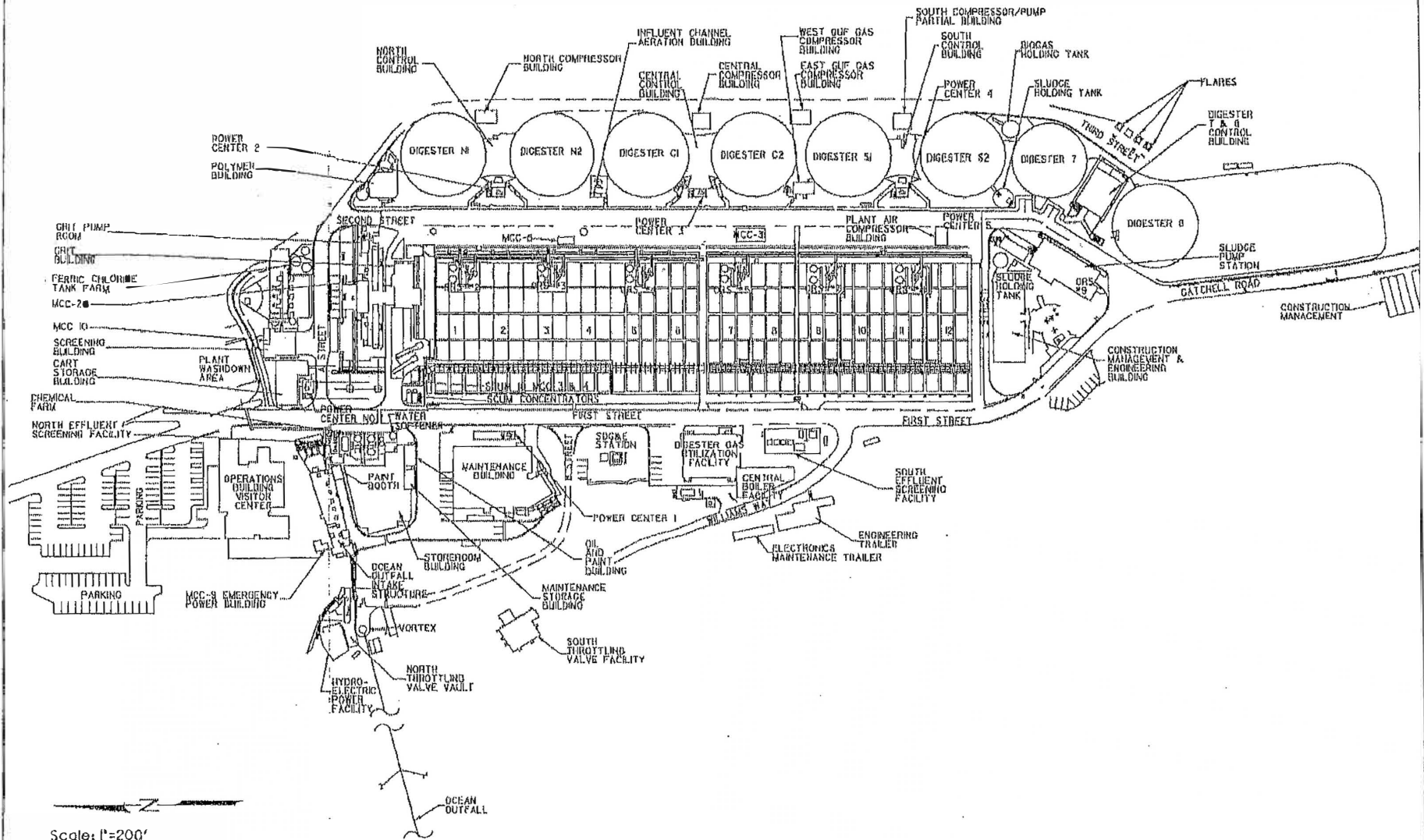
1. Point Loma Wastewater Treatment Plant	\$ <u>305,205.<sup>00</sup></u>	
2. South Bay Wastewater Treatment Plant	\$ <u>41,126.<sup>00</sup></u>	
3. North City Water Reclamation Plant	\$ <u>20,180.<sup>00</sup></u>	
4. As-Needed Labor and Equipment Costs	\$ <u>108,360.<sup>00</sup></u>	
GRAND TOTAL		\$ <u>474,871.<sup>00</sup></u>
PERFORMANCE BOND (2%)		\$ 9,497. <sup>42</sup>
TOTAL		\$ <u>484,368.<sup>42</sup></u>



# North City Water Reclamation Plant

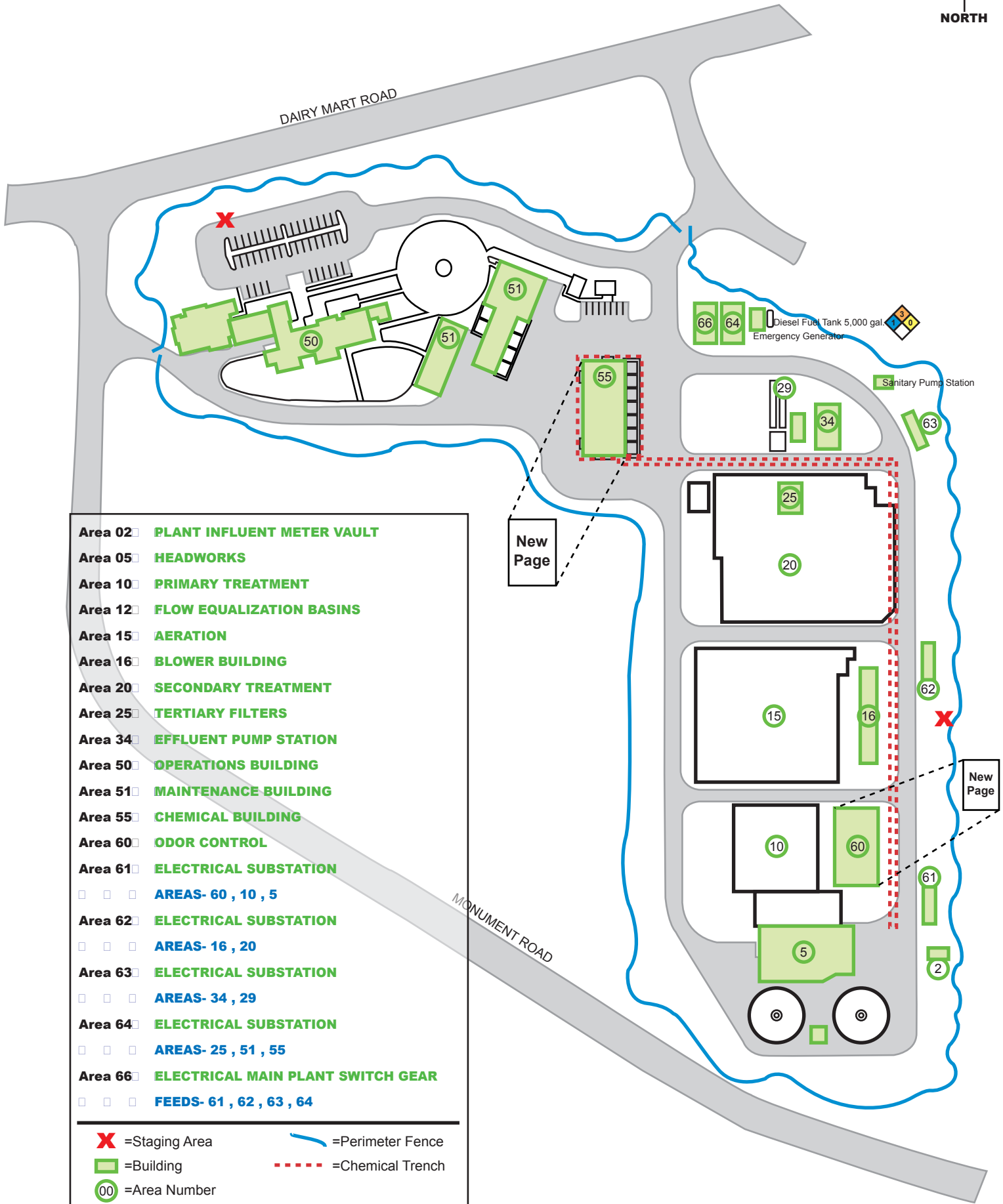


# POINT LOMA WASTEWATER TREATMENT PLANT



Scale: 1"=200'

# South Bay Wastewater Treatment Plant



- Area 02  PLANT INFLUENT METER VAULT
  - Area 05  HEADWORKS
  - Area 10  PRIMARY TREATMENT
  - Area 12  FLOW EQUALIZATION BASINS
  - Area 15  AERATION
  - Area 16  BLOWER BUILDING
  - Area 20  SECONDARY TREATMENT
  - Area 25  TERTIARY FILTERS
  - Area 34  EFFLUENT PUMP STATION
  - Area 50  OPERATIONS BUILDING
  - Area 51  MAINTENANCE BUILDING
  - Area 55  CHEMICAL BUILDING
  - Area 60  ODOR CONTROL
  - Area 61  ELECTRICAL SUBSTATION
  - AREAS- 60 , 10 , 5
  - Area 62  ELECTRICAL SUBSTATION
  - AREAS- 16 , 20
  - Area 63  ELECTRICAL SUBSTATION
  - AREAS- 34 , 29
  - Area 64  ELECTRICAL SUBSTATION
  - AREAS- 25 , 51 , 55
  - Area 66  ELECTRICAL MAIN PLANT SWITCH GEAR
  - FEEDS- 61 , 62 , 63 , 64
- 
- X =Staging Area
  - =Perimeter Fence
  - =Building
  - - - - =Chemical Trench
  - 00 =Area Number

## 2.3 CEMENT MORTAR LINING

- A. The internal surfaces of ductile iron pipe and fittings not receiving another type of lining and not specified other wise shall be lined with cement mortar and sealed in accordance with SSPWC, Subsection 207-9.2.4, except that the minimum lining thickness shall be as follows:

<u>Nominal Pipe Diameter (in)</u>	<u>Minimum Lining Thickness (in)</u>
3-12	1/8
14-24	3/16
30-54	1/4

## 2.4 GLASS LINING

- A. Type: All raw sludge piping (RSL), redundant sludge piping (RSL,DSL,PSL) and primary sludge piping (PSL) shall be lined with one of the following or equal:
1. Ferrocl Lining as manufactured by Ferro Enameling or Water Works Manufacturing.
  2. Permutit SG-14 as manufactured by Permutit Company.
- B. Material: Special glasses and inorganic materials suited for lining of sewage, sludge, and scum piping with the following characteristics:
1. Thickness: 0.008 to 0.012 inch.
  2. Hardness: 5 to 6 on the Mohs Scale.
  3. Density: 2.5 to 3.0 grams per cubic centimeter, measured in accordance with ASTM D 792.
  4. Thermal Shock Resistance: Capable of withstanding 350 degrees Fahrenheit change from 430 degrees Fahrenheit to 80 degrees Fahrenheit without crazing, blistering, or spalling.
  5. Gloss Retention: Capable of retaining gloss after immersion of an 8 percent sulfuric acid solution at 148 degrees Fahrenheit for 10 minutes.
  6. Weight Loss: Maximum 3 milligrams per square inch when tested in accordance with ASTM C 283.
- C. Fabrication:
1. Use piping that is suitable for glass lining with minimum Class 53 wall thickness after application of glass lining.
  2. Machine smooth and grit blast surfaces to white metal.

3. Screw factory assembled flanges on pipe and align bolt holes and flange faces, unless otherwise specified.
4. Apply lining to chemically clean surfaces.
5. Place piping in especially designed furnaces and heat piping until glass melts and fuses with a integral molecular bond to the base metal.

## 2.5 POLYURETHANE COATING AND LINING

- A. **General:** All buired shall be coated. All exposed and buired (preinsulated) HWS and HWR piping shall be coated with polyurethane.
- B. **Material:** polyurethane coating material shall be a 1 to 1 polyol resin to isocyanate resin 2-component mixture, of Type V according to ASTM D 16.
- C. **Performance:** Coating and lining shall have the following properties:
  1. Impact Resistance                      no less than 80 inch pounds when tested according to ASTM G14
  2. Adhesion                                      no less than 1,000 psi when tested according to ASTM D4541
  3. Hardness                                      80 (plus and minus 5), Shore D, at 70 degrees F, when tested according to ASTM D 2240.
  4. Abrasion Resistance                      less than 100 mg weight loss per 1,000 revolutions of a CS-17 wheel when tested according to ASTM D 4060
  5. Water Absorption                          less than 3 percent using Type IV reagent water when tested according to ASTM D 471
  6. Permeability                                  less than 0.002 perm inches when tested according to ASTM E 96
  7. Dielectric Strength                        no less than 200 volts per mil of coating
- D. **Coating and Lining Conditions**
  1. Pipe sufaces shall be prepared by solvent washing (SSPC-SP1) followed by near white blast as applied to ductile iron (SSPC-SP10).
  2. Pipe temperatures shall be at least 5 degrees F warmer than the dewpoint in the area of the coating equipment and shall be warmed if necessary.
  3. Coating components shall be stored at temperatures warmer than 50 degrees F and shall not be stored longer than 6 months. Older components shall not be used.
- E. **Coating and Lining Thicknesses:** Coating shall have the following minimum nominal thicknesses:

3. Sealing Areas on 8 mils. Thicker coatings which do not compromise spigots and bells tightness may be accepted.
4. Factory Testing
  - a. Entire pipe surfaces coated with polyurethane shall be tested for holidays after curing at 100 volts per mil. Every holiday shall be repaired as indicated below.
  - b. Entire pipe shall be inspected visually. Pipe with sharp protuberances or significant sags, dimples, or curtain will not be accepted.
  - c. The CONSTRUCTION MANAGER will select one section of pipe from each lot of 20 sections coated for coating thickness testing by the CONTRACTOR. Tests shall be made by a Type 1 magnetic thickness gage. The CONSTRUCTION MANAGER will designate locations for spot measurements arranged at the points of an equilateral triangle 3 inches on a side, the triangle to be located at both ends, in the middle, and at the midpoints of each half of the pipe plus 5 randomly-selected individual points.
    - (1) No single spot measurement shall be less than 75 percent of the indicated minimum nominal thickness.
    - (2) The average of three spot measurements from any triangle shall not be less than 80 percent of the indicated minimum nominal thickness.
    - (3) The average of all spot measurements on a pipe shall not be less than the indicated minimum nominal thickness.
  - d. Sections of pipe selected by the CONSTRUCTION MANAGER for coating thickness testing will also be tested by the CONSTRUCTION MANAGER for delamination by scoring and prying with a pocket knife.
  - e. If the tested pipe complies with the coating thickness criteria above and shows no sign of delamination by knife test, all pipe in the lot of 20 will be considered as complying with requirements and the tested pipe may be repaired for installation. If the tested pipe fails either test, five additional sections from the same lot will be tested in similar fashion, and if all five pass all tests, then the lot, except for the pipe which failed, will be considered in compliance. If any of the additional sections fail, the entire lot will be considered non-compliant and shall not be used.
5. Coating and Lining Repair of Holidays and Cut Ends
  - a. Holidays and cut ends shall be repaired by solvent cleaning, roughening with coarse sand paper, and recoating with brushable 2-component material recommended by the manufacturer for such purposes. Overlap the acceptable coating at least one inch in all directions. Mix repair material and apply in accordance with the coating manufacturer's recommendation.

## 2.5 GLASS LINING

- A. Type: All raw sludge piping (RSL), redundant sludge piping (RSL,DSL,PSL) and primary sludge piping (PSL) shall be lined with one of the following or equal. Pipe coatings shall be as specified in Section 09800.



1. Ferrock Lining as manufactured by Ferro Enameling or Water Works Manufacturing.
  2. Permutit SG-14 as manufactured by Permutit Company.
- B. Material: Special glasses and inorganic materials suited for lining of sewage, sludge, and scum piping with the following characteristics:
1. Thickness: 0.008 to 0.012 inch.
  2. Hardness: 5 to 6 on the Mohs Scale.
  3. Density: 2.5 to 3.0 grams per cubic centimeter, measured in accordance with ASTM D 792.
  4. Thermal Shock Resistance: Capable of withstanding 350 degrees Fahrenheit change from 430 degrees Fahrenheit to 80 degrees Fahrenheit without crazing, blistering, or spalling.
  5. Gloss Retention: Capable of retaining gloss after immersion of an 8 percent sulfuric acid solution at 148 degrees Fahrenheit for 10 minutes.
  6. Weight Loss: Maximum 3 milligrams per square inch when tested in accordance with ASTM C 283.
- C. Fabrication:
1. Use piping that is suitable for glass lining with minimum Class 53 wall thickness after application of glass lining.
  2. Machine smooth and grit blast surfaces to white metal.
  3. Screw factory assembled flanges on pipe and align bolt holes and flange faces, unless otherwise specified.
  4. Apply lining to chemically clean surfaces.
  5. Place piping in especially designed furnaces and heat piping until glass melts and fuses with a integral molecular bond to the base metal.

## **PART 3 -- EXECUTION**

### **3.1 INSTALLATION**

#### **A. General:**

1. Install ductile iron piping in accordance with AWWA C 600, modified in accordance with Section 15000.
2. Lay mechanical joint with 1/8 inch space between the spigot and shoulder of the pockets.
3. Exposed piping shall be coated in accordance with Section 09800.

SECTION 15061 - DUCTILE IRON PROCESS PIPE - EXPOSED AND BURIED

	AS SPECIFIED	EQUAL
<u>2.2 - ACCESSORIES:</u>		
A. Fittings: AWWA C 110/ANSI A21.10 or AWWA C 153/ANSI A 21.53 with the same pressure rating and joint configuration as that of the associated piping.	X	X
B. Flexible Couplings: In accordance with Section 15000.	X	X
C. Cleanouts.	N/A	
D. Bonding and Electrical Conductivity.	N/A	
<u>2.3 - POLYURETHANE COATING AND LINING:</u>	N/A	
<u>2.4 - HEAT RESISTANT EPOXY COATING:</u>	N/A	
<u>2.5 - GLASS LINING:</u>		
A. Type: All raw sludge piping (RSL), redundant sludge piping (RSL,DSL, PSL) and primary sludge piping (PSL) shall be lined with one of the following or equal. Pipe coating shall be as specified in Section 09800. Vitco Mfg. - Tnemec 104-Mils	X	X
X		X
B. Material: Special glasses and inorganic materials suited for lining of sewage, sludge, and scum piping with the following characteristics:	X	X
1. Thickness: 0.008 to 0.012 inch.	X	
2. Hardness: 5 to 6 on the Mohs Scale.	X	
3. Density: 2.5 to 3.0 grams per cubic centimeter, measured in accordance with ASTM D 7912.	X	
4. Thermal Shock Resistance: Capable of withstanding 350 degrees Fahrenheit change from 430 degrees Fahrenheit to 80 degrees Fahrenheit without crazing, blistering, or spalling.	X	
5. Gloss Retention: Capable of retaining gloss after immersion of an 8 % sulfuric acid solution at 148 degrees Fahrenheit for 10 minutes.	X	



SECTION 15061 - DUCTILE IRON PROCESS PIPE - EXPOSED AND BURIED

	AS SPECIFIED	EQUAL	SEE SPEC
<p>6. Weight Loss: Maximum 3 milligrams per square inch when tested in accordance with ASTM C 283.</p>			
<p>C. Fabrication</p>	X		X
<p>1. thru 5.</p>	X		
<p>* END OF SECTION *</p>			



## *Thirty years Experience with Glass Lined Piping Systems in Wastewater Treatment Plants*

by

Robert A. Hollenbaugh  
Manager, Sales and Marketing  
VITCO Corporation

### **Introduction**

Historically, there has been a continually recurring problem with accumulation of grease and solids on the interior of conventional piping systems that handle raw sludge and scum in sewage treatment plants. The adverse effects caused by this build-up are extremely costly; increased pressure drop becomes so great that the carrying capability of the line is severely diminished, sometimes with total pluggage, and pumping systems are often damaged due to high system backpressures and reduced flowrate.

In an attempt to keep the lines clear and free-flowing, costly cleaning methods are employed which are, at best, only temporary. These processes include manual rodding, pigging, steam lance cleaning and hot water flushing, all of which impact the use of the system and are also undesirable due to the nature of the material involved.

Other unsatisfactory alternatives have been evaluated in an attempt to limit the effect of interruptions for required cleaning and to allow the plant operations to continue. For instance, some plants have installed duplicate lines to allow for full plant throughput while one line is out of service for cleaning. Other systems have been designed with oversized piping in an attempt to extend the period between cleaning-related shutdowns.

### **Introduction of Glass Lined Pipe**

The use of glass lined piping systems to combat this continuing problem came about somewhat by accident at the wastewater treatment plant in Eugene, OR when it was noticed that the grease build-up did not occur in the pyrex sight glass sections which had been placed in the raw sludge lines. During the design stage of a later addition to this plant, a search was made to find a piping system which exhibited these same

smooth, non-stick characteristics. It was found that Porcelain Enameled "glass lined" pipe and fittings had been previously used in various industrial applications to protect the pipe from a highly corrosive environment. It was decided to install a test section of this glass lined piping in the problematic sludge line of the Eugene facility. This test section proved satisfactory over a period of several months with no accumulation on the glass lined surface even though there was continued build-up in the unlined pipe on each side. As a result of this test, glass lined pipe was used on raw sludge lines when the plant was expanded in 1961.

The operations personnel at the Eugene Plant recently indicated that the original Glass Lined Piping is still in use and has provided exceptional service for nearly 30 years. The only cleaning required for this system has been to remove build-up in the non-glass lined areas within the system such as the valves, expansion joints, etc.

It is interesting to note that significant research has been done in recent years with various valve manufacturers to develop a glass lined plug valve for use in sludge and scum systems. The results have been positive and now allow the installation of an essentially continuous Glass Lined System.

### **Description of Glass Lined Piping**

The glass lining applied to these systems consists of a thin layer of fused glass material which binds itself integrally with the metallic substrate when fired at elevated temperatures. Typical thickness of the glass system is only 10-20 mils. Alternatively, this process is known as Vitreous or Porcelain Enamel and exhibits the following properties:

Superior Lubricity (smoothness and non-stick characteristics) Hazen-Williams Coefficient of approximately 140

- Corrosion Resistance in environments where the pH ranges from 3 to 10
- Abrasion Resistance - hardness on the Mohs scale of 6+ and a Rockwell exceeding 73
- Temperature Resistance - maintaining most properties up to 800° F.
- Thermal Shock Resistance - instantaneous temperature changes exceeding 360° F.

To a large extent, these properties are due to the use of a "dual-fire" system using two frit formulations that, in ground coat, establish an excellent bond with the base metal and, in the cover coat, provide the durable hard glossy surface. In the ground coat application, following shotblast cleaning, the finely ground glass components liquify as the base metal is heated above 1400° F., flowing into the roughened microsurface of the iron. The glass becomes locked in place providing a fuseable interface for subsequent attachment of the fired cover coat glass. This durable bond cannot be achieved by other "low temperature" processes such as application of organic materials (epoxies, vinyls, polyethylene). Photomicrographic cross-sections of various types of lining systems clearly show this superior bond. The integrity of this bond has been proved many times in actual adverse service (vacuum conditions and corrosive or abrasive environments) where the glass will not begin to separate or delaminate from the base metal as will occur with some organic coatings.

As a result of the unusual durability displayed by the glass lined system under a variety of adverse service conditions, its uses are not limited to sludge and scum piping systems. It also has applications for transport of acidic or alkaline fluids, abrasive slurries and high temperature fluids. Furthermore, there are no toxic materials associated with the specially formulated glass and, therefore, no adverse impact on the environment. Most importantly, glass is the basic component of the lining and is both inexpensive and relatively stable in cost. While production of a high quality product leads to significant processing costs, as applied to wastewater treatment facilities, the total additional cost for glass lined components can typically be justified in less than one year.

### Typical Installation Experience

A 1969 issue of *The American City Magazine* referred to the Westpoint Sewage Treatment Plant in Seattle, WA. in which two separate systems of glass lined pipe had been installed. The first commenced service in July 1968 with the second system following by one year. At the time of the 1969 article, neither system had required any type of cleaning and they

continue to operate today with the original glass lined systems.

The large Metropolitan Waste Control Commission Pigs Eye Sewage Treatment Facility in Minneapolis/St. Paul provides significant indication of the benefits and cost effectiveness of the glass lined system. This plant underwent a major expansion in the mid-1970's including installation of glass lined piping in the sludge and scum lines. This expansion increased the plant capacity by 200 MGD to its current capacity of 300 MGD with an average throughput of 230 MGD. Prior to the installation of Glass Lined Piping, plant operators indicate that solids would adhere to all parts of the system such that a minimum of 250-300 man hours per month were required to keep the sludge and scum lines operational. However, since the introduction of glass lined piping systems at the Pigs Eye Plant, there is no buildup problem under normal operation and cleaning requirements have been reduced to such an extent as to be insignificant.

It has been estimated that, had Glass Lined Piping not been installed, the manhour requirements to clean these systems following the expansion would have increased proportionately with the increased capacity of the plant. Consequently, it is estimated that the savings in cleaning labor experienced by the plant has easily justified the cost differential for Glass Lining in less than one year.

### Heated Effluent at Pig's Eye

An additional problem was encountered at the Pig's Eye Facility due to the fact that the sludge and scum lines are not required to operate 100% of the time. Operators have found that heavier materials settle in the piping and accumulate at the bottom of the system when the system is offline. Even though this material does not adhere to the interior of the glass surface, the solids tend to harden in tees, elbows, etc., such that they are not carried with the normal flow when the system is restarted. Several years ago, in order to soften this sediment, a heat exchanger was installed which heats plant effluent water to approximately 140-160° F. One time per week, the heated effluent is circulated throughout the sludge and scum lines to soften any sediment, removing it with normal system flow. Of course, this simple system would not be successful without the non-stick properties of the glass lining which eliminates any possibility of adherence to the pipe surface.

Photograph #1 shows an untouched section of glass lined pipe which was recently removed from the scum piping after 8 years of service. As can be seen, only minimal traces of grease and solids are present

in the sample. Photograph #2 shows the same piece after cleaning with Windex and a paper towel. There is no evidence of erosion or other deterioration of the porcelain enamel surface and the section still possesses the same surface gloss as originally installed. This is the key factor in the lubricity or non-stick characteristic of the product and demonstrates the durability of the hard glass surface. Photograph #3

shows a similar section taken from the sludge line after nearly 13 years of service. This section also displays only minimal film on the pipe, which, as shown in Photograph #4, was also easily removed. As with the scum lines, the glass lining was totally intact with no deterioration in gloss or loss of other properties occurring since its original installation.

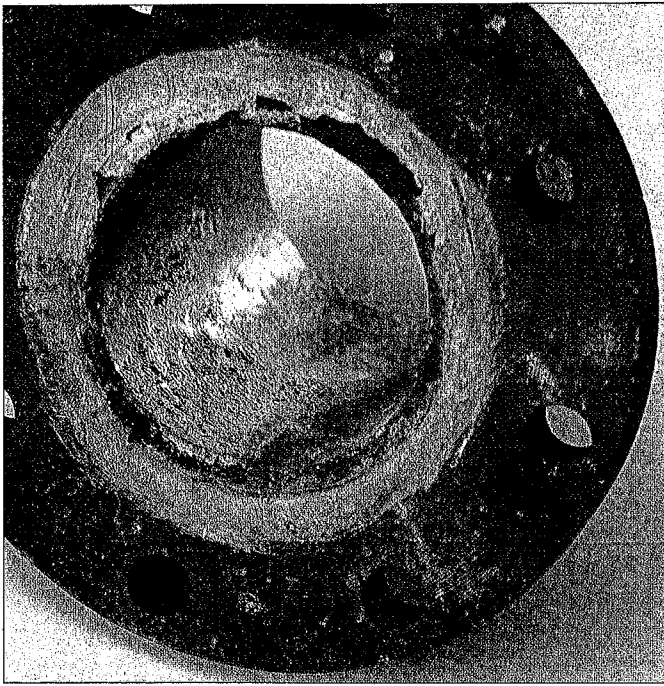


Photo #1

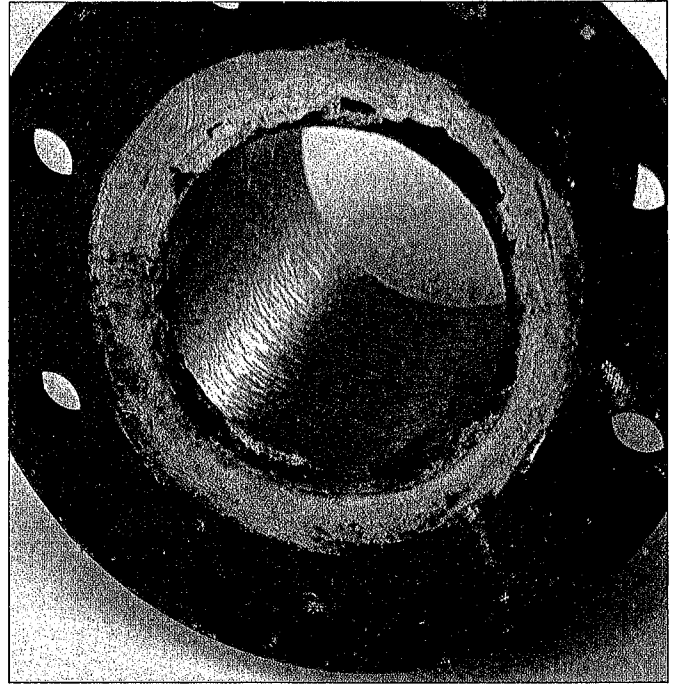


Photo #2

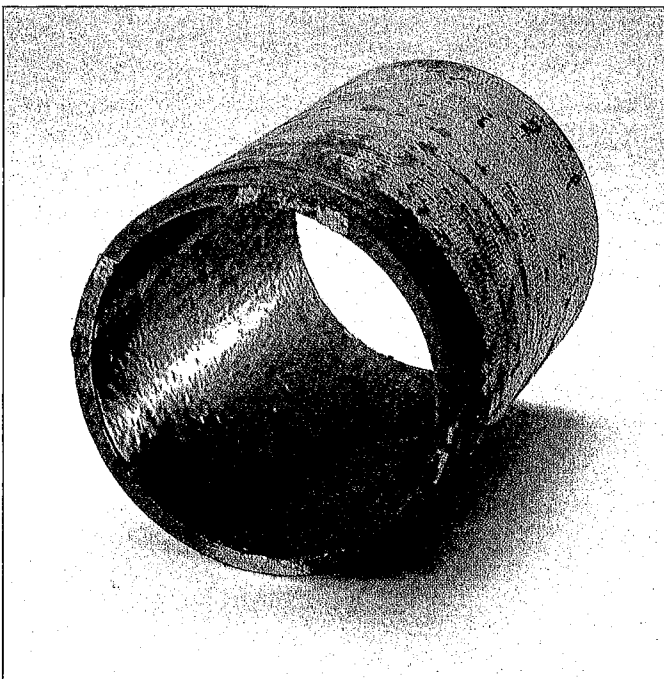


Photo #3

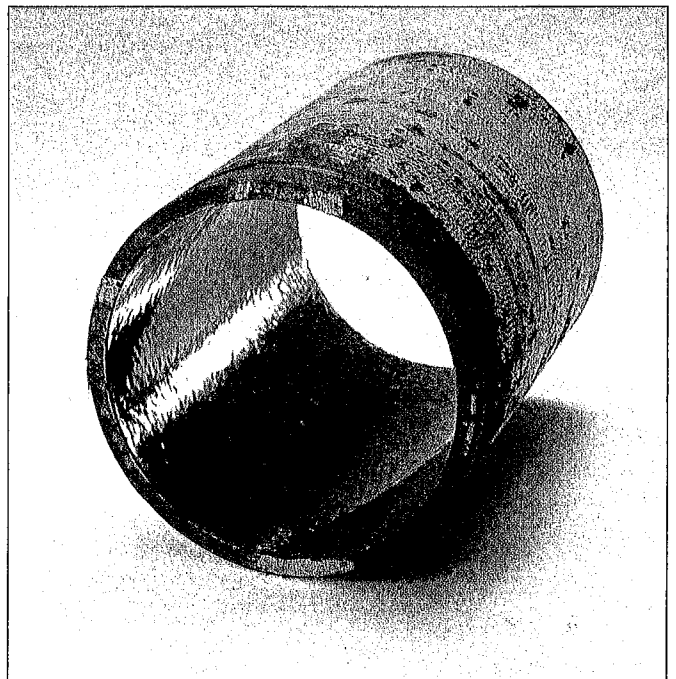


Photo #4

## Comparison with organic coatings

Various plant operators have made comparisons between glass lined pipe and piping that is coated with organic materials. Initially, while they both have comparable performance, abrasion of the softer plastic materials causes a loss of lubricity, thus limiting the suitability of the piping to withstand build-up over extended periods. Currently, the cost of glass piping systems is approximately the same as for organic coated systems although this situation may change as costs increase for organic materials derived from oil and natural gas.

## Other Applications

The key factors that assure a long service life for glass lined products are the relatively high hardness, the continuity of the glossy porcelain surface and the integral bond with the base metal. These characteristics make the glass lined pipe effective in a moderately abrasive environment such as slurries or systems where solids are suspended in a fluid, particularly if the constituents are relatively less hard than the glass (one of the hardest natural occurring materials). An example of this is the use of glass lined Venturi Tubes installed by a Canadian company for systems which transport a tailings slurry stream from stripper pumps in a heavy crude oil extraction process. Previous unlined Venturis had been subject to rapid deterioration due to the abrasive action of the slurry. In 1984, however, glass lined Venturi Tubes were introduced into the system and, to date, the tubes have not failed.

The tubes will be inspected during an upcoming shutdown for scheduled maintenance. Even if the lining has been eroded somewhat, assuming the base castings are intact, new spare Venturi tubes will be installed and a new glass lining will be applied to the existing tubes so that they can be returned to service at a later date. Specifics of this application are as follows:

Process:	Heavy Oil Extraction
Application:	Tailings slurry from stripper pumps
Constituents:	79% water, 17% solids (sand), 1.5% Naptha, 2.5% Bitumen

Flow rate:	56.1 micron mean solids size. Maximum 6000 GPM, Average 4300 GPM
Line Size:	14"
Velocity:	Inlet 12.5 ft./sec., Throat 25 ft./sec.
Percentage of time in-service:	60%

As a product, integral glass lining is not limited to application on pipe and fittings. Heat exchanger tubes, pump bodies, valves, sanitary floor recepticals, screw augers, etc., have all utilized this system. Practically any steel, cast iron or ductile iron system that is subjected to a hostile environment can economically be protected with one of a number of specially formulated glass systems.

## Summary

Increasingly, engineering firms and end users have become aware of the many advantages of glass lined piping systems since the first applications in wastewater treatment plants during the early 1960's. This system is used extensively throughout the United States for the sludge and scum lines of nearly all new sewage treatment plant construction. Installations outside the U.S. are increasing as plant operators learn the beneficial features of glass lining. A partial listing of major Engineers which now recommend the use of glass lined piping includes Black & Veatch, Brown and Caldwell, Burgess and Niple, CH2M Hill, Camp Dresser and McKee, John Carollo Associates, Gannett Fleming Cordry and Carpenter, Havens and Emerson, James M. Montgomery, Jones and Henry, Kennedy Jenks Chilton, Malcolm Pirnie, Metcalf & Eddy, Nolte and Associates, SEH, and Whitman Requardt and Associates.

30 years experience has proven the long term durability of the glass lined system. The major cost savings which result from elimination of costly cleaning operations easily justify the relatively low initial cost differential for installation of this system. In short, the unique characteristics of the economical Glass Lined System has made it standard for Wastewater Treatment facilities and is leading to development of new products and end uses to solve wide ranging problems relative to lubricity and resistance to corrosion, abrasion, temperature and thermal shock.



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PHONE: 814-796-6739 • FAX: 814-796-2016



VITREOUS ENAMELED PRODUCTS  
SG-14 PIPE & FITTINGS  
CAST IRON AND STEEL

## SUBMITTAL

The glass lining shall be type SG-14, a specially formulated internal coating for handling sewage, grease, scum and sludge in sewage and wastewater treatment plants. All metal preparation, application and processing will follow the manufacturer's recommended procedure.

The coating shall consist of special glasses and inorganic materials applied in a minimum of two (2) coatings, separately fired, to internal surfaces prepared by blasting. Following application of the ground (base) coat, the items shall be exposed to an appropriate maturing temperature (above 1400 F.) at which point the glass fuses to the base metal, forming an integral molecular bond with the metal. The resulting bond shall be sufficient to withstand a metal yield point of 0.001 inch/ inch without damage to the glass.

Subsequent coatings (finish coats) will be processed in a similar manner, forming an integral molecular bond with the base coat.

The entire coating shall be from .008" to .012" thick. It shall have a hardness of from 5 to 6 on the MOHS Scale and a density from 2.5 to 3.0 grams per cubic centimeter. The SG-14 green-glass lining shall be capable of withstanding a thermal shock of 350 F without crazing, blistering or spalling. It shall be resistant to corrosion by solutions of between PH-3 and PH-10 at 125 F. There shall be no visible loss of surface gloss on the glass lining after immersion of a normal production run sample in an 8% sulphuric acid solution at 148 F for a period of ten (10) minutes. In addition, when tested according to ASTM Designation C283-54, it shall show a weight loss of not more than 3 milligrams per square inch.

The glass lining shall be in accordance with the manufacturer's standard tolerances for coverage, continuity and gloss. Pin holes, crazing or fishscales which substantially expose the metal substrate shall be cause of rejection of the pieces. These conditions are checked by visual inspection only and no electrical or spark testing of any kind is to be used. Visual appearance should be similar to bright and clean opaque window glass. A strong light source at one end of a finished piece will be used to inspect the glass surface.

Sizes, details, handling, stacking, etc., shall be in accordance with the manufacturer's recommendations.

Cutting of the glass lined pipe shall be limited to only one piece per run of pipe for closure purposes, unless otherwise specified by the engineer. When manufacturer's recommendations are followed carefully, spalling can be limited to a maximum of 1/8" back from the cut.

VITCO CORPORATION

Cuts should be made using a band saw with a lenox neo-type blade, 1/4" wide x .025 thick x 18 teeth per inch, or finer, set at a speed of 100 ft. per minute. If the material is not forced against the blade, but set so that the cut is progressive in a natural way, chipping or spalling of the glass lining is held to a minimum. Occasionally, a chip may go back .030" to .060", but that is usually on an upward angle, leaving the substrate protected with a cover of ground coat. Pipe can also be cut with an abrasive high speed wheel.

All VITCO supplied pipe and fittings will conform to AWWA and ANSI specifications.

Class of pipe and rating of fittings will be to the customer's specifications.

If requested, identifying mark or tag numbers can be provided on individual pieces.



VITREOUS ENAMELED PRODUCTS  
SG-14 PIPE & FITTINGS  
CAST IRON AND STEEL

RECOMMENDED GLASS LINING SPECIFICATION

Pipe and fittings shall be lined with a specially formulated internal porcelain coating designed for handling sewage, grease, scum and sludge in sewage and wastewater treatment plants, and shall be resistant to adherence of grease and crystalline metal salt deposits within these systems. All metal preparation, application and processing will follow the manufacturers recommended procedure.

The coating shall consist of special glasses and inorganic materials applied to internal surfaces in a minimum of two (2) coatings, separately fired, each to a maturing temperature greater than 1300° F., sufficient to form an integral molecular chemical/mechanical bond with the base metal. Subsequent coatings will form an integral molecular bond with the previous coat. The resulting bond shall be sufficient to withstand a metal yield of 0.001 inch/inch without damage to the glass.

The entire lining system shall have a minimum thickness of .010", a hardness exceeding 5 on the MOHS Scale, and a density from 2.5 to 3.0 grams per cubic centimeter. The lining shall be capable of withstanding an instantaneous thermal shock of 350° F. without crazing, blistering or spalling, shall be resistant to corrosion by most solutions between PH-3 and PH-10 at 125° F., and shall show a weight loss of not more than 3 milligrams per square inch when tested according to ASTM Designation C283-54. There shall be no visible loss of surface gloss after immersion of a normal production run sample in a 8% sulfuric acid solution at 148° F. for a period of ten (10) minutes.

The glass lining shall provide continuous coverage when tested by a low voltage (67.5 volt) wet sponge holiday detection unit such as a Tinker and Razor model M-1 low voltage detection device. Isolated detectable pinholes are permitted, providing they are limited to less than .01% of the total glass lined surface (no more than 1-2 pinholes per fitting or an average of 5 or less per 20 feet of pipe). Documented test results shall be furnished with all shipments.

Testing procedures and acceptance criteria shall be provided for approval as a part of the glass lined pipe and fitting submittal information.

Glass lining shall be Vitco Corporation Type SG-14, or approved equal.



CHEMICAL RESISTANCE OF PORCELAIN ENAMEL  
AT VARIOUS TEMPERATURE LEVELS

CHEMICAL	TEMPERATURE IN DEGREES FARENHEIT			CHEMICAL	TEMPERATURE IN DEGREES FARENHEIT		
	85°	212°	350°		85°	212°	350°
Acetaldehyde	1	1	1	Barium Chloride	1	1	1
Acetic Acid	1	1	1	Barium Hydroxide	1	2	2
Acetic Anhydride	1	1	1	Barium Sulphate	1	1	1
Acetone	1	1	1	Benzaldehyde	1	1	1
Acetyl Salicylic Acid	1	1	1	Benzene	1	1	1
Acrylic Acid	1	1	1	Benzoic Acid	1	1	1
Alcohol, Ethyl	1	1	1	Benzol Chloride	1	1	1
Alcohol, Methyl	1	1	1	Benzoyl Chloride	1	1	1
Aluminum Acetate	1	1	1	Bleaching Powder	1	1	1
Aluminum Chlorate	1	1	1	Boric Acid	1	1	1
Aluminum Chloride	1	1	1	Bromic Acid	1	1	1
Aluminum Fluoride	3	3	3	Bromine	1	1	1
Aluminum Potassium Sulphate	1	1	1	Butyl Acetate	1	1	1
Aluminum Sulphate	1	1	1	Butyric Acid	1	1	1
Aminoethanol	1	1	1	Calcium Chloride	1	1	1
Aminophenol	1	1	1	Calcium Hydroxide	1	1	1
Ammonium Bromide	1	1	1	Calcium Hypochloride	1	1	1
Ammonium Carbonate	1	1	1	Calcium Sulphate	1	1	1
Ammonium Fluoride	3	3	3	Carbon Bisulfide	1	1	1
Ammonium Hydroxide	1	2	3	Carbon Dioxide	1	1	1
Ammonium Metaphosphate	1	1	1	Carbon Monoxide	1	1	1
Ammonium Nitrate	1	1	1	Carbon Tetrachloride	1	1	1
Ammonium Persulphate	1	1	1	Carbonic Acid	1	1	1
Ammonium Phosphate	1	1	1	Chloracetic Acid	1	1	1
Ammonium Sulphate	1	1	1	Chloric Acid	1	1	1
Ammonium Sulphide	1	1	1	Chlorinated Paraffin	1	1	1
Amyl Acetate	1	1	1	Chlorine Gas	1	1	1
Aniline	1	1	1	Chlorine Dioxide	1	1	1
Antimony Trichloride	1	1	1	Chlorine Water	1	1	1
Aqua Regia	1	1	1	Chloroacetyl Chloride	1	1	1
Arsenious Acid	1	1	1	Chlorobenzene	1	1	1

KEY: 1. FULLY RESISTANT    2. RESISTANT OVER A LIMITED PERIOD ONLY    3. NON-RESISTANT

CHEMICAL RESISTANCE OF PORCELAIN ENAMEL  
AT VARIOUS TEMPERATURE LEVELS

CHEMICAL	TEMPERATURE IN DEGREES FAHRENHEIT			CHEMICAL	TEMPERATURE IN DEGREES FAHRENHEIT		
	85°	212°	350°		85°	212°	350°
Chloroform	1	1	1	Hexachlorethane	1	1	1
Chlorosulphonic Acid	1	1	1	Hydrazine	1	1	1
Chlorosulphuric Acid	1	1	1	Hydrazine Hydrate	1	1	1
Chromic Acid (Fluorine Free)	1	1	1	Hydrazine Sulphate	1	1	1
Chromium Sulphate	1	1	1	Hydriodic Acid	1	1	1
Citric Acid	1	1	1	Hydrobenzoic Acid - Methyl Ester	1	1	1
Copper Chloride	1	1	1	Hydrobromic Acid	1	1	1
Copper Sulphate	1	1	1	Hydrochloric Acid	1	1	1
Cresylic Acids	1	1	1	Hydrocyanic Acid	1	1	1
Dichloroacetic Acid	1	1	1	Hydrofluoric Acid	3	3	3
Dichlorobenzene	1	1	1	Hydrogen Bromide	1	1	1
Dichlorobenzyl	1	1	1	Hydrogen Peroxide	1	1	1
Diethylamine	1	1	1	Hydrogen Sulphide Solution	1	1	1
Dimethylaminopropanol	1	1	1	Hydroxyacetic Acid	1	1	1
Dimethyl Sulphate	1	1	1	Hypochlorous Acid	1	1	1
Ether	1	1	1	Iodic Acid	1	1	1
Ethyl Acetate	1	1	1	Iodine	1	1	1
Ethyl Chloride	1	1	1	Iron Bromide	1	1	1
Ethylene Dibromide	1	1	1	Isoamylalcohol	1	1	1
Ethylene Glycol	1	1	1	Isopropanol	1	1	1
Fatty Acids	1	1	1	Lactic Acid	1	1	1
Ferric Chloride	1	1	1	Lead Acetate	1	1	1
Ferrous Sulphate	1	1	1	Lithium Chloride	1	1	1
Fluorine	3	3	3	Lithium Hydroxide	3	3	3
Formaldehyde	1	1	1	Magnesium Carbonate	1	1	1
Formic Acid	1	1	1	Magnesium Sulphate	1	1	1
Fumaric Acid	1	1	2	Maleic Acid	1	1	1
Glycerine	1	1	1	Manganese Sulphate	1	1	1
Glycerol	1	1	1	Mercuric Chloride	1	1	1
Glycol	1	1	1	Methanol	1	1	1
Glycolic Acid	1	1	1	Methyl Acetate	1	1	1

KEY: 1. FULLY RESISTANT    2. RESISTANT OVER A LIMITED PERIOD ONLY    3. NON-RESISTANT

CHEMICAL RESISTANCE OF PORCELAIN ENAMEL  
AT VARIOUS TEMPERATURE LEVELS

CHEMICAL	TEMPERATURE IN DEGREES FAHRENHEIT			CHEMICAL	TEMPERATURE IN DEGREES FAHRENHEIT		
	85°	212°	350°		85°	212°	350°
Methyl Chloride	1	1	1	Potassium Dichromate	1	1	1
Monochloroacetic Acid	1	1	1	Potassium Ferrocyanide	1	1	1
Monochlorobenzene	1	1	1	Potassium Fluoride	3	3	3
Monethanolamine	1	1	1	Potassium Hydroxide	1	2	3
Monosodium Glutamate	1	1	1	Potassium Hypochlorite	1	1	1
Naphthalene	1	1	1	Potassium Sulphate	1	1	1
Nickel Chloride	1	1	1	Pyridine	1	1	1
Nickel - Plating Solution	1	1	1	Pyridine Chloride	1	1	1
Nitric Acid	1	1	1	Pyridine Hydrochloride	1	1	1
Nitric Oxide	1	1	1	Pyrogallol	1	1	1
Nitrobenzene	1	1	1	Pyrollidine	1	1	1
Nitrobenzol	1	1	1	Salicylic Acid	1	1	1
Nitrous Acid	1	1	1	Silicon Fluoride	3	3	3
Nitrous Oxide	1	1	1	Silver Chloride	1	1	1
O - Hydroxybenzoic Acid	1	1	1	Sodium Bicarbonate	1	2	3
Oleic Acid	1	1	1	Sodium Biphosphate	1	1	1
Organic Chlorides	1	1	1	Sodium Biphosphite	1	1	1
Oxalic Acid	1	1	1	Sodium Carbonate	1	1	1
Perchloric Acid	1	1	1	Sodium Chlorate	1	1	1
Phenol	1	1	1	Sodium Chloride	1	1	1
Phenolphthalein	1	1	1	Sodium Cyanide	1	1	1
Phosphoric Acid - (Fluorine Free)	1	1	1	Sodium Ethylate	1	1	1
Phosphorous Oxychloride	1	1	1	Sodium Fluoride	3	3	3
Phosphorous Trichloride	1	1	1	Sodium Glutamate	1	1	1
Phthalic Anhydride	1	1	1	Sodium Hydroxide	1	2	3
Picric Acid	1	1	1	Sodium Hypochlorite	1	1	1
Polyvinyl Chloride	1	1	1	Sodium Methylate	1	1	1
Potassium Bicarbonate	1	1	1	Sodium Nitrate	1	1	1
Potassium Bisulphate	1	1	1	Sodium Polysulphide	1	1	1
Potassium Bromide	1	1	1	Sodium Silicate	1	1	1
Potassium Chloride	1	1	1	Sodium Sulphate	1	1	1

KEY: 1. FULLY RESISTANT    2. RESISTANT OVER A LIMITED PERIOD ONLY    3. NON-RESISTANT

CHEMICAL RESISTANCE OF PORCELAIN ENAMEL  
AT VARIOUS TEMPERATURE LEVELS

CHEMICAL	TEMPERATURE IN DEGREES FAHRENHEIT			CHEMICAL	TEMPERATURE IN DEGREES FAHRENHEIT		
	85°	212°	350°		85°	212°	350°
Sodium Sulphide	2	2	2	Trichloroacetic Acid	1	1	1
Sulphonic Acid	1	1	1	Trichloroethylene	1	1	1
Sulphur	1	1	1	Triethanolamine	1	1	1
Sulphur Dioxide	1	1	1	Triethyl Phosphoric Acid	1	1	1
Sulphuric Acid	1	1	1	Trifluoroacetic Acid	1	1	1
Sulphuric Acid (Oleum)	1	1	1	Trisodium Phosphate	1	2	3
Sulphurous Acid	1	1	1	Urea	1	1	1
Tannic Acid	1	1	1	Water	1	1	1
Tartaric Acid	1	1	1	Xylene	1	1	1
Tetrachloroethylene	1	1	1	Zinc Bromide	1	1	1
Thiocarbonic Acid	1	1	1	Zinc Chloride	1	1	1
Toluene	1	1	1	Zinc Sulphate	1	1	1

KEY: 1. FULLY RESISTANT: 2. RESISTANT OVER A LIMITED PERIOD ONLY 3. NON-RESISTANT

## VARIED APPLICATIONS - GLASS LINED PIPE

Glass lined ductile iron and steel pipe and fittings have been used in the wastewater and sewage treatment industries since the early 1960's as a deterrent to interior build-up and clogging problems often associated with certain areas within these plants. The effectiveness of the glass lining is due to the high level of lubricity or the "non-stick" characteristic, and it was utilized for many years based upon that one excellent performance characteristic.

Because the glass is also impermeable to liquids, it is resistant to corrosives from PH-3 through PH-10 (special formulations are available for specific higher or lower PH conditions), is heat resistant to 900 degrees F, and is extremely hard and is, therefore, resistant to rubbing abrasion, many other uses have been and continue to be investigated and developed. In addition to being resistant to high temperatures, the glass lining is also resistant to instantaneous thermal shock of as much as 550° F differential. This is primarily due to the exceptional chemical and mechanical bonding that takes place during the high firing application of the glass to the base metal at approximately 1400°.

Because the glass lining and base metal actually become one unit, the glass lined product is not fragile and does not require any special handling. As with any internally lined piping materials, it should simply not be lifted by internal means as with hooks or forks. The glass lining will also "flex" to the yield point of the base metal itself without damage to the glass. Consequently, vibration, external impact, pressure, or vacuum conditions have no detrimental affect to the glass lining.

In 1969, glass lined piping was installed in a bottom ash recovery system at the Wyoming Valley Sanitary District Facility in Wilkes-Barre, Pennsylvania. The piping was used to transport bottom ash from a sludge incinerator to the settling lagoons. Within the past year, we began receiving orders for material to replace parts from that original system, following nearly 25 years of continuous service in this adverse environment.

In August of 1992, a test system was established at the Baltimore Gas and Electric Brandon Shores Facility. The glass lined sections were installed in a Fly Ash Cyclone Separation Equalizer System which previously had a life cycle of only 2 1/2 to 3 months due to rapid deterioration of the 2 1/2" diameter piping from abrasion. During an August 16, 1993 visit to that facility, we found that this test system is still functioning satisfactorily. This represents over one year of continuous service, or an increase of 400% and counting. Due to these test results, Baltimore Gas and Electric is now considering introduction of the glass lined piping into additional areas.

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A local Erie foundry has experimented with glass lined pipe and fittings as well as glass lined internal pump surfaces in their slag recovery systems to combat a serious abrasion problem. Longevity results have averaged four to five times that of uncoated materials. Consequently, we are now meeting with them to determine what other areas within their facility can be protected as well.

Based upon the results from both the Erie foundry and the Baltimore Gas and Electric facility, we have recently received material orders from a Pittsburgh area foundry for piping used to transport foundry sand through their facility, and an order from a major power plant for a substantial test section in their ash lines which carry the ash slurry to the settling ponds.

Struvite is an extremely hard crystalline deposit that forms on the interior surfaces of piping and literally requires the use of a hammer and chisel to remove. Several years ago, VITCO glass lined several Victaulic plug valves for use in a Struvite plagued line at a Metro Denver Project in Denver, Colorado. Glass lined piping was also installed in the same system. Recent discussions with operations personnel at Denver indicate that the glass lined valves are operating "flawlessly" and that there is no build-up of Struvite within the glass lined piping, except minimally at the joints. Epoxy coated valves were also tested. Abrasives within these sludge lines eventually deteriorated the epoxy coatings to where build-up again began. No such problem has been experienced with the glass lined units, with no deterioration or change in the effectiveness.

The results of most hardness tests are determined through direct impact which is not conducive to this type of product. There have been several charts developed in an attempt to establish some correlation between those tests that can be performed on the product and the equivalent relative number on the other hardness scales. Glass lining is typically between 6 and 7 on the MOHS scale, 73+ on the Rockwell "A", and 650+ Brinnell as determined by these correlations. Again, however, the consideration for most abrasive material handling piping is not impact resistance but rather the resistance to rubbing abrasion.

These new applications mentioned represent only a small number of the potential uses for the product because of the exceptional and varied performance characteristics associated with it.

## ENGINEERING GUIDE

VITCO Corporation SG-14 glass lined pipe and fittings are specified throughout the United States, Canada and Australia by many of the leading design and consulting engineering firms and by many of the municipal water districts because of the many positive advantages experienced through its use. This impressive list of engineers and districts includes, but is not limited to:

Malcolm-Pirnie, Inc.  
Metcalf and Eddy  
Black and Veatch  
Brown and Caldwell  
Greeley and Hansen  
Gannett and Fleming  
Tighe and Bond  
CH2M Hill  
O'Brien and Gere  
Havens and Emerson  
BCM  
Jones and Henry  
John Carollo Engineers  
Kennedy-Jenks-Chilton  
Nolte and Associates  
Donohue and Associates  
James M. Montgomery  
Whitman, Requardt and Associates  
Orange County Sanitation District  
Seattle Metro-District  
Massachusetts Water Resources Administration  
Sydney, Australia Water Board  
Minneapolis-St Paul Twin Cities Sanitation District

## ABRASION RESISTANCE - URICK FOUNDRY

In addition to power plant applications and ash piping, the resistance of VITCO glass lining to rubbing abrasion has been witnessed at the Urick Foundry Company in Erie, Pennsylvania.

Glass lined piping from VITCO Corporation was installed in a slag slurry waste recovery system; the waste consisting of water, sand, glassy materials and slag particles, similar to a fly ash slurry. This waste material is pumped through two 3" diameter systems at a flow rate of 900-1100 gallons per minute at approximately 200-250 PSI.

In addition to glass lining of all of the pipe and fittings within this system, VITCO Corporation also glass coated the internal surfaces of the pump bodies involved.

According to Sam Genovesi, Maintenance Foreman at the Urick Operation, the glass lining has extended the life of the pipe and fittings an average of 4-5 times longer than the previous uncoated system. The life of the pump bodies has been extended to a point where the body itself is outlasting the life cycle of the pumping mechanism .

The result has been significantly reduced, expensive system down time and maintenance costs. Because of these positive results to date and proven cost savings, Urick is now considering expanding the use of our glass lined product to other troublesome systems as well. These potential applications include pneumatic sand distribution systems and dust collection systems as well as additional waste recovery areas.



## STRUVITE GLASS LINING AS A DETERRENT

Glass lined pipe and fittings are widely specified and utilized as a deterrent to interior build-up and clogging of sludge and scum systems within wastewater and sewage treatment plants. The excellent lubricity or "non-stick" characteristic is not only effective against build-up of sludges, scums and greases, it has also been found effective in combating the build-up of ammonium magnesium phosphate hexahydrate, or struvite as well.

A significant quantity of glass lined pipe and fittings were installed at the Metro Wastewater Reclamation District Facility in Denver, Colorado in the mid-1970's.

During a September 14, 1993 meeting at the Metro Facility, operations personnel indicated that the primary area of concern regarding Struvite build-up is in the Heat Exchanger Sludge Circulation Systems adjacent to the Digestors. The piping involved was part of the mid-1970's glass lined installation. Build-up of Struvite within these glass lined systems has been limited primarily to the non-glass lined equipment such as valves and sludge nozzles. The valves, which were epoxy lined, were quite effective but only for a limited time. The abrading of the epoxy coating by the sludge materials causes "roughening" of the surface and eventual Struvite build-up within these valves making them very difficult to operate. The Struvite also adheres to the nickel valve seats. This same eventual build-up occurs at the stainless steel nozzles. These nozzles were eventually removed and epoxy coated. The results were the same as with the valves. The effective longevity was limited.

In February of 1991, several Victaulic plug valves were glass lined at VITCO Corporation, then installed in this Heat Exchanger Sludge Circulation System at Metro Denver's Facility. Periodic inspection of the valves by removal of the bonnet shows no build-up of Struvite within these valves. Consequently, the operation of these glass lined valves continues to be "flawless" and effortless. Operation of adjacent epoxy coated valves is very difficult because of the internal Struvite build-up.

In addition, because of the hardness and consequential abrasion resistance of the glass lining, the chemical resistance, and the unmatched bond with the base metal material, it is unaffected by cleaning methods that may be periodically required for removal of Struvite from the non-glass surfaces.

Glass lining is a proven, long lasting deterrent to Struvite and can be applied to all of the components involved within these related systems.

LISTING OF SOME OF THE MOST RECENT  
INSTALLATIONS OF VITCO SG-14 GLASS LINED PIPE AND FITTINGS

MWRA Boston Harbor Project	Boston, Massachusetts
Hyperion Wastewater Treatment Plant	City of Los Angeles, California
Riverside Wastewater Treatment Plant	Riverside, California
City of Madera Wastewater Treatment Facility	Madera, California
Southside Wastewater Treatment Facility	Sacramento, California
Eastside Sewage Treatment Plant	San Francisco, California
Oceanside Wastewater Treatment Facility	San Francisco, California
Orange County Sanitation District Treatment Facility	Fountain Valley, California
Chino Basin Wastewater Treatment Plant	Chino, California
San Bernardino Wastewater Treatment Facility	San Bernardino, California
Southside Wastewater Treatment Plant	Las Vegas, Nevada
23rd Avenue Wastewater Treatment Plant	Phoenix, Arizona
Rogers Road Sewage Treatment Plant	Tucson, Arizona
Central Valley Sanitary Authority Facility	Salt Lake City, Utah
City of Fresno Facility	Fresno, California
Santa Rosa Water Reclamation Facility	Marrieta, California
San Elijo Wastewater Treatment Plant	Cardiff-by-the-Sea, California
Renton Wastewater Treatment Facility	Renton, Washington
Post Point Wastewater Treatment Plant	Bellingham, Washington
Westpoint Sewage Treatment Plant	Seattle, Washington
Green Bay North Sewage Treatment Plant	Green Bay, Wisconsin
Green Bay South Sewage Treatment Plant	Green Bay, Wisconsin
Yakima Wastewater Treatment Plant	Yakima, Washington
Bi-City Wastewater Treatment Facility	Englewood, Colorado
Southside Wastewater Treatment Plant	San Antonio, Texas
Des Moines Wastewater Treatment Plant	Des Moines, Iowa
Pappilo Wastewater Treatment Plant	Omaha, Nebraska
Missouri River Wastewater Treatment Plant	Omaha, Nebraska
Pigs Eye Sewage Treatment Plant	Minneapolis-St. Paul, Minnesota
Seneca Wastewater Treatment Plant	Eagan, Minnesota
Dry Creek Wastewater Treatment Plant	Ludlow, Kentucky
River Road Wastewater Treatment Plant	Wichita Falls, Texas
Elkhart Wastewater Treatment Facility	Elkhart, Indiana
Grass Island Wastewater Treatment Plant	Greenwich, Connecticut
Owls Head Wastewater Treatment Plant	New York, New York
Coney Island Wastewater Treatment Plant	Brooklyn, New York
Cedar Creek Wastewater Treatment Plant	Wantagh, Long Island, New York
Quincy Sludge Processing Facility	Quincy, Massachusetts
Passaic Valley Wastewater Treatment Facility	Newark, New Jersey
Burlington Wastewater Treatment Plant	Burlington, Vermont
Patapsco Wastewater Treatment Plant	Baltimore, Maryland
Back River Sewage Treatment Facility	Baltimore, Maryland
Mattawoman Wastewater Treatment Plant	La Platta, Maryland
Freedom District Wastewater Treatment Plant	Sykesville, Maryland
Wilmington Sewage Treatment Facility	Wilmington, Delaware

Mt. Airy Sewage Treatment Plant  
Durham Wastewater Treatment Plant  
Cross Creek Sewage Treatment Plant  
North East Water Pollution Control Plant  
Morristown Wastewater Treatment Plant  
Westbrook Sludge Digester Facility  
Brunswick Waste Treatment Plant  
Cross Creek Water Pollution Control Facility  
Hilo Wastewater Treatment Plant  
Ville De Saint Hyacinthe Sewage Treatment Plant  
Regina Wastewater Treatment Plant  
Winnipeg Sewage Treatment Facility  
East and West Bank Sewage Treatment Facilities  
Malabar Sewage Treatment Works  
North Head Sewage Treatment Project  
Socorro Wastewater Treatment Plant  
Miami-Dade Wastewater Treatment Plant  
U-Conn Wastewater Treatment Plant  
Westerly Wastewater Treatment Plant

Mount Airy, North Carolina  
Durham, North Carolina  
Fayetteville, North Carolina  
Philadelphia, Pennsylvania  
Morristown, New Jersey  
Westbrook, Maine  
Brunswick, Maine  
Atlanta, Georgia  
Hilo, Hawaii  
St. Hyacinthe, Quebec, Canada  
Regina, Saskatchewan, Canada  
Winnipeg, Manitoba, Canada  
Egypt  
Malabar, Australia  
Sydney, Australia  
Socorro, New Mexico  
North Miami Beach, Florida  
Storrs, Connecticut  
Cleveland, Ohio