

Bid Documents

for the

BOLLI TANK RECOATING AND RETROFIT (TWO [2] FOUR HUNDRED THOUSAND [400,000] GALLON TANKS)

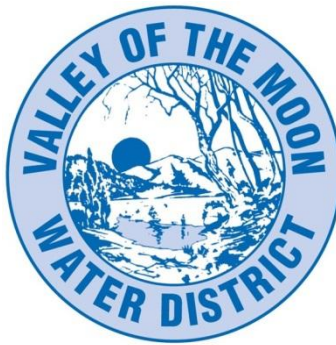
Project #3029

Valley of the Moon Water District, Sonoma CA

BIDS DUE: 2:00 PM, Monday, September 15, 2025; VOMWD District Office, 19039 Bay Street, Sonoma California 95476.

BID OPENING: 2:00 PM, Monday, September 15, 2025; VOMWD District Office, 19039 Bay Street, Sonoma California 95476.

A MANDATORY pre-bid conference will be held at 10:00 am Wednesday, August 20th



Valley of the Moon Water District

Physical Address and Parcel Delivery:

19039 Bay Street
Sonoma, CA 95476
707-996-1037

USPS Address:

P.O. Box 280
El Verano, CA 95433

PROJECT DOCUMENTS

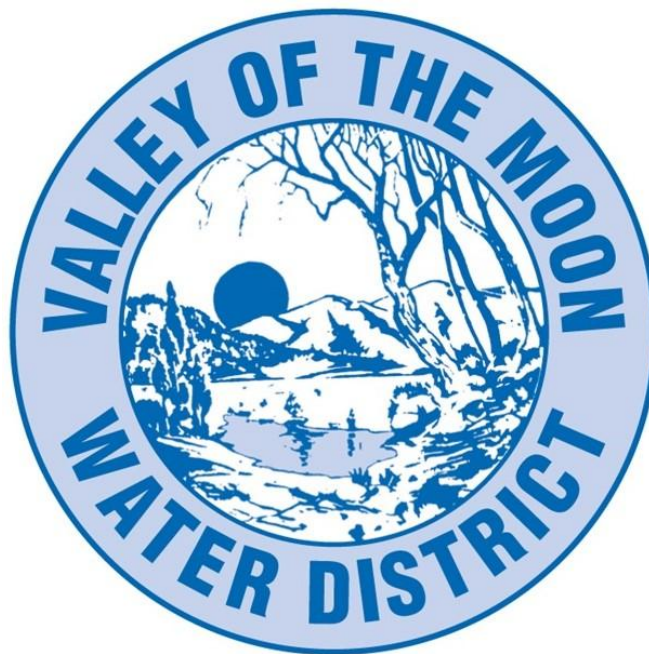
for the

Bolli Tank Recoating and Retrofit Project #3029

Valley of the Moon Water District, Sonoma California

THE OFFICIALS OF THE VALLEY OF THE MOON WATER DISTRICT:

President	Gary Bryant
Vice President	Steve Caniglia
Director	Colleen Yudin-Cowan
Director	Jon Foreman
Director	David Williams
General Manager	Matt Fullner



VALLEY OF THE MOON WATER DISTRICT

BOLLI TANK RECOATING AND RETROFIT Project #3029

Sonoma, California

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ADVERTISEMENT FOR BID

BOLLI TANK RECOATING AND RETROFIT

(TWO [2] FOUR HUNDRED THOUSAND [400,000] GALLON WATER TANKS)
Project #3029

Sonoma, California

VALLEY OF THE MOON WATER DISTRICT

Sealed bids for the Bolli Tank Recoating and Retrofit Project # 3029 (Bolli Tank Recoating Project) in Unincorporated Sonoma County California, will be received by Matt Fullner, General Manager at the District Administrative Office, 19039 Bay Street, Sonoma CA 95476 until 2:00 PM, Monday, September 15, 2025. Bids received after 2:00 PM will not be considered. Bids shall be publicly opened and read at 2:00 PM, Monday, September 15, 2025. Bids shall be clearly marked **“Bolli Tank Recoating and Retrofit Project #3029.”**

USPS Address:
VOMWD
P.O. Box 280
El Verano, CA 95433

Physical Address and Parcel Delivery:
VOMWD
19039 Bay Street
Sonoma, CA 95476

The project is a public works project subject to the California Department of Industrial Relations regulations. Work generally consists of preparation of surfaces, performance, and completion of recoating of all interior and exterior surfaces of these two (2) 400,000-gallon water storage tanks, the addition of handrails to the top of both tanks, and solar array mounting brackets to the top of the north tank in accordance with this Bid Package and Contract Documents. The work shall be complete, and all work, materials, and services not expressly indicated or called for in the Contract Documents which may be necessary for the complete and proper construction of the work in good faith shall be provided by the CONTRACTOR as though originally so indicated, at no increase in cost to the DISTRICT. The tank modifications and interior tank recoating portion of the contract work must be completed not later than March 20, 2026, and the exterior tank recoating portion of the contract work must be completed not later than May 29, 2026.

The specifications, proposed contract provisions, and any future addenda to this project may be reviewed at no cost through the District’s website at <https://www.vomwd.org/bids>. It shall be the bidder’s responsibility to check the website for any possible addenda. A **mandatory** pre-bid conference will be held at 10:00 am, Wednesday, August 20th, 2025 beginning at the District offices.

Bidders for this project must be pre-qualified by completing a pre-qualification application provided with the bid documents. The District shall consider no bid unless the bidder is a registered and licensed Contractor and the bidder has complied with all prescribed public-bidding procedures and requirements, bids not in compliance will be rejected. The District reserves the right to reject any or all bids, to postpone the award for 60 days, to delete certain items from the proposal, and to award the contract to the lowest responsive, responsible bidder.

Dated this July 29th, 2025.



Matt Fullner – General Manager

PROJECT INFORMATION

BOLLI TANK RECOATING AND RETROFIT

Project # 3029

GENERAL DESCRIPTION

The Work generally consists of interior and exterior surface preparation and recoating of the two (2) 400,000-gallon Water Tanks (about 46ft diameter, 32ft height each).

Additional tank modifications to be included in the bid are:

- On each tank, install 42" tall welded railings around the top perimeter of the tank from each side of the existing landing and railings. The existing railing is approximately 10 lineal feet, the remaining circumference requiring new railing is about 131 lineal feet.
- On each tank remove railing returns on existing railings (two at approximately 4' each)
- On the North tank only, weld 12 brackets to the top of the tank to mount a small solar array (array to be installed by District)

In accomplishment of this scope, performance of additional and incidental work as called for by the specifications and plans are to be determined on site will be required and be included in the quoted bid and shall be paid based on the unit prices quoted in the bid of the successful bidder.

It is understood that these improvements are intended to become the property of the District upon completion and acceptance by the District.

PRE-BID CONFERENCE

A **mandatory** pre-bid conference will be held on Wednesday, August 20th, at 10:00 a.m. starting at the District office, 19039 Bay Street, Sonoma, CA followed by a short drive and on-site visit to the Bolli Water Tank site located in Sonoma, CA. No statement made by the District's agents at such meeting not otherwise provided herein shall be binding on the District unless confirmed by a written addendum.

TIME OF COMPLETION

The time of completion of the work to be performed under this contract is as follows:

The contract work pertaining to the tank modifications and interior of the tank must be completed and ready to be put back into service no later than March 20, 2026, and the exterior tank recoating portion of the contract work must be completed no later than May 29, 2026.

LIQUIDATED DAMAGES

Contractor agrees that the "Time of Completion" is defined in the Bid Documents and agrees to complete the work by said date. The Contractor and District agree that the District will suffer damages each day the work remains uncompleted after the Time of Completion (note: different dates for interior and exterior completion) and that the amount of those damages will be difficult to ascertain. Contractor and District

agree that a reasonable amount of damages for late completion is **\$500.00 (five hundred dollars)** per day for the first 7 calendar days starting the first day following the current contract completion date. Damages for late completion shall increase to **\$1,000 (one thousand dollars)** per day beginning the eighth calendar day following the current contract completion date, and for every calendar day thereafter during which the work remains uncompleted. Contractor agrees to pay these sums as damages within 30 days of incurrence and agrees that they are not imposed as a penalty.

BID SECURITY

Bids must be accompanied by a certified check drawn on a bank in good standing or a bid bond issued by a surety company authorized to issue such bonds in the State of California, in an amount of not less than **ten percent (10%)** of the total amount of the bid submitted. This check or bid bond shall be given as a guarantee that if awarded the contract, the successful bidder will execute the attached contract and furnish a properly executed performance bond in the full amount of the contract price within the time specified.

RECORD OF EXPERIENCE BY THE PRIME CONTRACTOR

At the time of submission of bids, all bidders must provide and certify information that clearly demonstrates a 3-year period of expanding experience. Said experience must be with products similar to that specified in this contract. Experience must include projects of a similar size and scope of work and be within the local geographic area (within 200 miles). Information shall be provided on the form provided in the bid packet and include project name, description of work, cost, location, point of contact, and telephone number. The District reserves the right to reject bids that do not contain and confirm the required experience information.

PRE-QUALIFICATION OF BIDDERS

Pre-qualification is required for this project. Bidders who are not pre-qualified will not be considered. Pre-qualification includes 1.) local successful experience with water reservoir coating projects within the last three years and 2.) attendance at the mandatory pre-bid conference.

The successful Bidder must comply with all prevailing wage laws applicable to the Project, and related requirements contained in the Contract Documents. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by the Director of the State of California Department of Industrial Relations, are on file at [<http://www.dir.ca.gov/OPRL/PWD/index.htm>] and are deemed included in the Bidding Documents.

The successful Bidder shall post the applicable prevailing wage rates at the Site.

Bidder shall also certify in its bid that it has not and will not discriminate against any minority, women, or emerging small business enterprise in obtaining any required subcontract for this project.

CONTRACT DOCUMENTS

The Contract Documents pertaining to this work consist of the material bound and attached herewith. The contract amount will be determined based on the available funds, selected alternatives, if applicable, and the lowest responsive bid. These Contract Documents are intended to provide all details reasonably required for the execution of the proposed work. Any person contemplating the submission of a bid and being in doubt as to the meaning or intent of said Contract Documents should request of the District's General Manager, in writing, an interpretation thereof. Any interpretation or change in said Contract Documents should be made in writing, and a copy of such interpretation or change will be published, as shall be all other addenda, on District's website. Addenda may be downloaded from the District's website. Bidders should frequently check the District's website until closing, i.e., at least once weekly until the week of closing and at least once daily

the week of the closing. The District will not be responsible for any other explanation or interpretation of said Documents.

CONSTRUCTION STANDARDS APPLICABLE

The District's Design and Construction Standards, Standard Construction Specifications, and AWWA standard construction practices in their entirety are hereby incorporated by reference. If there is a conflict, the more restrictive requirement shall prevail.

WORK PERFORMED BY THE PRIME CONTRACTOR

At the time of submission of bids, all bidders must identify and certify their company will accomplish a minimum of 50% of on-site construction involving both labor and materials. The District reserves the right to reject bids that do not clearly and accurately identify the minimum of on-site work to be performed by the contractor.

SUPERVISION OF WORK BY THE PRIME CONTRACTOR

Only an experienced, full-time employee of the prime contractor will supervise the work on behalf of the prime contractor. Said supervisor must have a demonstrated supervisory role of a minimum of three (3) years and be employed by the prime contractor for a minimum of twelve (12) months prior to the award of the contract.

CONTRACTING LICENSE REQUIREMENT

The bidder must be registered with the California Contractor State License Board.

Each bid must contain the license number of the bidder and subcontractors.

PREPARATION OF BID

The bid for the work contemplated is to be submitted on the form prescribed in the bid herein. All blank spaces on the bid form must be filled in, in ink, in both words and numbers where applicable. No changes shall be made in the phrasing of the forms or in the items mentioned herein. Written amounts shall govern in cases of discrepancy between the amounts stated in writing and the amounts stated in numbers.

Any bid that contains omissions, erasures, alterations, additions of any kind, or items uncalled for, or which in any manner fail to conform to the conditions of the published Advertisement for Bids and associated addenda, may be rejected by the District.

Bids made by corporations or partnerships shall contain the names and addresses of the principal officers or partners.

SUBMISSION OF BIDS

All bids must be submitted at the time and place and in the manner prescribed in the Advertisement for Bids. Bids must be made on the prescribed bid forms attached herewith and submitted intact with the bid documents. Late bids will not be considered. Faxed or e-mailed bids will not be considered.

FIRST TIER SUBCONTRACTOR DISCLOSURE

If a bid for the project contains a subcontractor, the Bidder must submit a written disclosure of the names, addresses, contractor license number, if applicable, and amount of subcontract for all subcontractors furnishing labor or labor and materials whose subcontracts are equal to or greater in value than 5% of the total project bid and describe the Work that each Subcontractor will perform.

WITHDRAWAL OF BID

Any bid may be withdrawn prior to the scheduled date and time for the opening of bids either by written request or in person. No bid may be withdrawn after the time scheduled for the opening of bids.

The District reserves the right to retain the bid security of the three (3) lowest bidders until the successful bidder has furnished a one hundred percent (100%) performance bond. Upon failure of the successful bidder to deliver a performance bond within the specified time, the next lowest bid may be accepted at the District's discretion, whereupon the above instructions and requirements will apply to the said second bidder. Bid security of all bidders, except the three (3) lowest, will be returned promptly after the evaluation of bids; bid security of the three lowest bidders will be returned within three (3) days after the contract has been executed or other disposition made thereof in accordance with the provisions stated herein.

CONDITIONS OF WORK

Each bidder must inform himself of the conditions relating to the execution of the work, and it is assumed that he will inspect the site and make himself thoroughly familiar with all the Contract Documents. Failure to do so will not relieve the successful bidder of his obligation to enter into a contract and complete the contemplated work in strict accordance with the Contract Documents. Each bidder must inform himself on all laws and statutes, both Federal and State, relative to the regular execution of the work, the employment of labor, right-of-way, and access to the work, fire protection regulations, and similar requirements.

AWARD OR REJECTION

The contract will be awarded to the lowest responsive, responsible bidder complying with the bid specifications. Should the District have sufficient funding and desire alternates, the contract will be awarded to the alternates selected by the District at the District's sole discretion.

The District reserves the right to reject any or all bids or to waive any formality, informality, irregularity, or technicality in any bid. No bidder may withdraw his bid for a period of ninety (90) days after the date of opening thereof. The acceptance of a bid will be by notice in writing, mailed, or delivered to the office designated in the Bid.

ADDENDA

Any addenda issued during the time of bidding and forming a part of the Contract Documents to the bidder for the preparation of his bid shall be covered in the bid and shall be made a part of the contract. Addenda will be handled as follows: the District will not mail notice of Addenda but will publish notice of any Addenda on the District's website. The Addenda may be downloaded from the District's website. Bidders should frequently check the District's website until the date of closing, i.e., at least once weekly until the week of Closing and at least once daily the week of the Closing. Each addendum shall be required to be acknowledged in writing by the bidder.

EXECUTION OF CONTRACT

The contract is executed upon signature of the contract document by both the District's General Manager and the Contractor's representative authorized to sign the contract.

PERFORMANCE, PAYMENT, AND PUBLIC WORKS BOND

The successful bidder shall file with the District performance and payment bonds in the full amount of the contract price of the contract within five (5) working days of written notification of the award of the contract by the District. The surety company furnishing this bond shall have a sound financial standing and a record of service satisfactory to the District and shall be authorized to do business in the State of California. The Attorney-in-Fact (Resident Agent) who executes this performance and payment bond on behalf of the surety company must attach a copy of his power-of-attorney as evidence of his authority. A notary shall acknowledge the power as of the date of the execution of the surety bond which it covers.

FAILURE TO FURNISH BOND

Should the successful bidder fail or refuse to execute the contract and furnish the performance and payment bonds, then the bid security deposited by said bidder shall be retained as liquidated damages by the District. It is agreed that this said sum is a fair estimate of the amount of damages the District will sustain in case the bidder fails to comply as provided herein and is not a penalty. Bid security deposited in the form of a certified check shall be subject to the same requirement as a bid bond.

RESPONSIBILITY OF PUBLIC AGENCY (VALLEY OF THE MOON WATER DISTRICT)

Advertise and accept bids for the project, award, administrate the contract, and inspect the project for compliance (the District will hire 3rd party inspector) with contract specifications, and provide payment as provided for in this contract.

CHANGES

District may at any time, and without notice, issue a written Change Order requiring additional work within the general scope of this Contract, or any amendment thereto, or directing the omission of or variation in work. If such Change Order results in a material change in the amount or character of the work, an equitable adjustment in the Contract price and other provisions of this Contract as may be affected may be made. Any claim by the Contractor for an adjustment under this section shall be asserted in writing within thirty (30) days from the date of receipt from the Authorized Representative of District by the Contractor of the notification of the change, or the claim shall be deemed waived by the Contractor. The issuance of information, advice, approvals, or instructions by the District's Representative or other District personnel shall not constitute an authorized change pursuant to this section. Whether made pursuant to this section or by mutual agreement, no change shall be binding upon District until a written Change Order is executed by the Authorized Representative of the District, which expressly states that it constitutes a Change Order to this Contract. Nothing contained in this section or any claim by the Contractor shall excuse the Contractor from proceeding with the prosecution of the work in accordance with the Contract.

CONTRACTOR'S RESPONSIBILITY

The Contractor shall complete the work as represented in these plans and specifications, and as modified by written change order or written direction of the District. It is understood that the plans, specifications, and other contract documents do not purport to control the method of performing the work, but only the requirements as to the nature of the completed work. The Contractor assumes the entire responsibility for the method of performing and installing the work. Suggestions as to the method included in the contract

documents shall be deemed advisory only and the feasibility of such methods or the lack thereof shall not affect the Contractor's liability or status as an independent Contractor under this contract.

PAYMENTS

The District will make monthly payments as specified in the General Conditions, and as may be agreed by the Contractor, Inspector, and General Manager. Progress payments may be submitted monthly to the District project manager. If the District is notified that payment from the Contractor has not been made for labor or materials invoiced to the District by the Contractor, the District may withhold monies from payment to the Contractor in a sum sufficient to pay for such labor or materials. With the final contract payment request, the contractor must include a statement certifying that all persons/subcontractors/suppliers supplying labor and material, which costs are included with the current payment request, have been paid in full. Progress payments, less a ten (10) percent retention, shall be made to the Contractor within twenty (20) days of the District's receipt of the statement of services.

FINAL PAYMENTS:

The Contractor shall notify the District in writing when the Contractor considers the project complete, and the District shall, within 5 working days after receiving the written notice, either accept the work or notify the Contractor of work yet to be performed on the contract.

- 1.) Practical Completion: Upon acceptance by the District, 50% percent of the retention due to the Contractor shall be paid to the Contractor, by the District.
- 2.) Correction Obligation (Warranty) Completion: Upon acceptance by the District at the end of the warranty period the remaining 50% percent of the retention due to the Contractor shall be paid to the Contractor, by the District.

As a further condition of final acceptance, the District may require the Contractor to submit evidence, satisfactory to the District's Representative, that all payrolls, material bills, and other indebtedness connected with the project have been paid, except that in case of any disputed indebtedness or liens, the Contractor may submit in lieu of evidence of payment, a surety bond satisfactory to the District guaranteeing payment of all such disputed amounts when adjudicated in cases where such payment has not already been guaranteed by surety bond.

"AS BUILT" PLANS

The Contractor shall maintain a set of "as built" plans noting the actual work performed, including dimensions, depths, thickness, materials, and other pertinent information marked in red ink on a clean set of project plans. The contractor shall include detailed drawings and changes as necessary to supplement the plan information. The contractor shall record in the as built plans the depth, location, type of pipe, and other information about other utilities or facilities encountered while constructing this project. The contractor shall note the products, and manufacturers (where possible) of installed materials.

WATER SUPPLY

The District is the water purveyor in this area. Water can be made available to the Contractor at the water tank site. The Contractor is responsible for the installation fee and service/variable water rates. The Contractor is responsible for the installation of an airgap or approved backflow preventer after the District installed water meter. Contact the District at 707-996-1037, to set up an account for this water source.

PROJECT WORK AREA CLEANLINESS

It is understood that the cleaning of the work areas is required at the end of each working day and after project completion is considered incidental and that no additional compensation will be paid individually for this work. Pavement areas will be swept clean and all construction debris will be disposed of in a way approved by the Project Engineer.

SPECIAL SPECIFICATIONS

BOLLI TANK RECOATING AND RETROFIT

Project # 3029

GENERAL INFORMATION

These special specifications and provisions are for the work as described herein in conjunction with the associated project plans and other related documents. It is understood that these improvements are intended to become the property of the District upon completion and acceptance by the District.

The contractor shall be responsible for repairing all damage to identified utility lines located within the construction limits.

Construction of the facilities shown in the plans and specifications for this project shall be in conformance with established good construction practices, any permit conditions, OSHA/Cal OSHA, the District's Design and Construction Standards, the current versions of the Uniform Building Code, Uniform Plumbing Code, California Environmental Quality Act Rules and Standards, and product manufacturers' recommended procedures. Where any of these rules or standards are in conflict with one another, the District shall determine which rules or standards shall govern.

Payment for work shall be as set forth in the bidder's bid and shall include, but is not limited to, providing all materials, labor, and equipment necessary to perform the work listed herein. Work listed in each item shall be performed in accordance with the appropriate sections of the standard specifications, special specifications, standard details, and construction plans, except as modified herein.

PRE-CONSTRUCTION CONFERENCE

Pre-construction conference is required prior to the start of this project. The construction schedule and drawings of the tank modifications shall be submitted to the District at least five (5) working days prior to the pre-construction conference for approval.

CONTRACTOR'S NOTIFICATION RESPONSIBILITY PRIOR TO BEGINNING WORK

It is the Contractor's responsibility to notify the District's Project Manager ten (10) working days prior to beginning work on any portion of this project. It is also understood that it is the Contractor's responsibility to notify residents within the project vicinity at least five (5) working days prior to beginning work. The traffic control plan, if required, shall be submitted and approved two (2) weeks prior to beginning work with all the required signs to be installed at least two (2) weeks prior to beginning work.

Approval of the extent and duration of all temporary street closures by the District Engineer is required prior to any such closure.

LIMIT ON WORKING HOURS:

Working hours shall be limited as follows unless specifically authorized by the District:

Monday through Friday - 7:00 am to 7:00 pm;
Saturday – 9:00 am to 5:00 pm; and
Sunday - no work is permitted

MATERIAL SUBMITTALS:

The Contractor is responsible for submitting information to the District Project Manager for approval on all construction materials.

CORRECTION OBLIGATION PERIOD:

The Contractor will execute its work in strict accordance with the Contract Documents in a sound and workmanlike manner. The Contractor warrants and guarantees its work against all defects and deficiencies in material and workmanship. The Contractor agrees to correct all defects appearing in the work or developing in the materials furnished for a period of **twelve (12) months** after the date of final acceptance of the work by the District and further agrees to indemnify and save the District harmless from any costs encountered in correcting such defects and damage occurring as a result of the defects or deficiencies. Further, if defects are corrected during the correction obligation period, a new twelve (12) month period for that portion of the work will commence upon acceptance of the corrected work by the District.

PREVAILING WAGE LAWS

The successful Bidder must comply with all prevailing wage laws applicable to the Project, and related requirements contained in the Contract Documents. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are on file at [<http://www.dir.ca.gov/OPRL/PWD/index.htm>] and are deemed included in the Bidding Documents. The successful Bidder shall post the applicable prevailing wage rates at the Site.

WORKERS' COMPENSATION INSURANCE

The contractor, its subcontractors, and all employers working under this project shall be required to provide workers' compensation coverage for all their subject workers. Evidence of contractor compliance with this requirement shall be submitted and approved by the District prior to payment.

PERMITS

The Contractor shall obtain all permits and licenses, and pay any fees connected therewith, having to do with his construction operations. The contractor shall confine his operations to within the permanent or construction easement limits, and street right-of-way limits. Any damage to private property, either inside or outside of the aforementioned limits, shall be the responsibility of the Contractor.

OSHA:

During the performance of the contract, the contractor or vendor is required to comply with the conditions of the Federal Occupational Safety and Health Act (OSHA)/CalOSHA and the standards and regulations issued thereunder. The contractor shall further agree to hold the District, its employees, agents, Board members, and assigns harmless and free from liability for failure to comply with said standards and regulations. It shall be the sole responsibility of the contractor or vendor to remain familiar with said standards and regulations and maintain their enforcement.

CONSTRUCTION SEQUENCING:

Construction sequencing requirements for this contract are as follows:

1. Tank modifications to start by December 8, 2025
2. Interior tank recoating to be completed and tank operational by March 20, 2026.
3. Exterior tank recoating to start immediately after interior tank recoating is finished and to be completed by May 29, 2026.

In accordance with the above timelines, the contractor shall propose a plan of work that is acceptable to the District Project Manager and update the plan as necessary to remain current and responsive throughout the project.

BID SUBMISSION DOCUMENTS

BID CHECKLIST**Project # 3029**

NOTE: This checklist has been prepared as an aid to contractors in preparing and checking bids for completeness. However, it is not intended to incorporate all requirements of the bid documents. The contractor is responsible for familiarizing him or herself with the documents and completing all requirements for bidding.

Bolli Tank Recoating and Retrofit Bid Checklist	
Familiar with conditions of work and documents	
All blank spaces filled in	
Bid amount entered in words and numbers	
Registration with the California State License Board, and license number noted	
Bonding Information (Performance and Payment)	
Reference Project Information	
Subcontractor Disclosure Listing	
Non-Collusion Affidavit	
Certified Check or Bid Bond (10% of Bid Total)	
Bidder Certifications	
Insurance and Indemnification Requirement Certification	
Bid Form	

CONTRACTOR'S LICENSE NUMBER

Contractor's Name: _____

List Contractor's License Number: _____

Tax I.D. : _____

BONDING INFORMATION

If the Bidder is awarded a construction Contract on this Bid, the Surety that will provide the Performance and Payment Bonds is:

whose address is:

The name of the Bidder who is submitting this Bid is:

doing business at:

which is the address where the contract and all communications concerned with this bid shall be sent.

REFERENCE PROJECT INFORMATION

Recent projects first

#1 (Project Name, Location, Contract Cost) Project description:

Project completion date: (contracted): (actual):

Contact name: Telephone:

#2 (Project Name, Location, Contract Cost) Project description:

Project completion date: (contracted): (actual):

Contact name: Telephone:

#3 (Project Name, Location, Contract Cost) Project description:

Project completion date: (contracted): (actual):

Contact name: Telephone:

SUBCONTRACTOR DISCLOSURE LISTING

If a bid for the project contains subcontractor, the Bidder must submit a written disclosure of the names, addresses, contractor license number, if applicable, and amount of subcontract for all subcontractors furnishing labor or labor and materials whose subcontracts are equal to or greater in value than 5% of the total project bid and describe the Work that each Subcontractor will perform.

1 Subcontractor Name and description of work to be performed:

2 Subcontractor Name and description of work to be performed:

3 Subcontractor Name and description of work to be performed:

4 Subcontractor Name and description of work to be performed:

5 Subcontractor Name and description of work to be performed:

Public Contract Code §7106

STATE OF CALIFORNIA)
) ss.
COUNTY OF)

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BID BOND

Project #3029

KNOW ALL PEOPLE BY THESE PRESENTS, that _____, hereinafter called the Principal, and _____, a Corporation duly organized under the Laws of the State of California, having its principle place of Business at _____, in the State of _____, and authorized to do business in the State of California as Surety, are held and firmly bound unto the Valley of the Moon Water District, hereinafter called the District, in the penal sum of: _____ Dollars (\$ _____), for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the Principal herein is herewith submitting his Bid for the above noted project in the District, said Bid, by reference thereto, being hereby made a part hereof.

NOW, THEREFORE, if the said Bid submitted by the said Principal be accepted, and the Contract be awarded to said Principal, and if the said Principal shall execute the proposed Contract as required by the bidding and the Contract Documents within the time set by said Documents, then this obligation shall be void. If the Principal shall fail to execute the proposed Contract, the Surety hereby agrees to pay to the District the penal sum as liquidated damages.

Signed and sealed this _____ day of _____, 20_____

Principal

By: _____

Surety

By: _____
Attorney-in-Fact (A Certified Copy of the Agent's Power
of Attorney must be attached)

BIDDER CERTIFICATIONS

The undersigned Bidder certifies to the District as set forth in Sections 1 through 5 below.

1. STATEMENT OF CONVICTIONS

By my signature hereunder, I hereby swear, under penalty of perjury, that no more than one final, unappealable finding of contempt of court by a Federal Court has been issued against Bidder within the past two years because of failure to comply with an order of a Federal Court or to comply with an order of the National Labor Relations Board.

2. CERTIFICATION OF WORKER'S COMPENSATION INSURANCE

By my signature hereunder, as the Contractor, I certify that I am aware of the provisions of Section 3700 of the Labor Code that 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.

3. CERTIFICATION OF PREVAILING WAGE RATES AND RECORDS

By my signature hereunder, as the Contractor, I certify that I am aware of the provisions of Section 1773 of the California Labor Code, which requires the payment of prevailing wage on public projects. Also, that the Contractor and any subcontractors under the Contractor shall comply with California Labor Code §1776, regarding wage records, and with California Labor Code §1777.5, regarding the employment and training of apprentices. It is the Contractor's responsibility to ensure compliance by any and all subcontractors performing work under this Contract.

4. CERTIFICATION OF COMPLIANCE WITH PUBLIC WORKS CHAPTER OF LABOR CODE

By my signature hereunder, as the Contractor, I certify that I am aware of Sections 1777.1 and 1777.7 of the California Labor Code and Contractor and Subcontractors and am eligible to bid and work on public works projects.

5. CERTIFICATION OF ADEQUACY OF CONTRACT AMOUNT

By my signature hereunder, as the Contractor, pursuant to Labor Code Section 2810(a), I certify that, if awarded the Contract based on the undersigned's Bid, the Contract will include funds sufficient to allow the Contractor to comply with all applicable local, state, and federal laws or regulations governing the labor or services to be provided. I understand that the District will be relying on this certification if it awards the Contract to the undersigned.

BIDDER:

(Name of Bidder)

Date: _____, 20__

By: _____
(Signature)

Name: _____
(Print Name)

Job Title: _____

INSURANCE AND INDEMNIFICATION REQUIREMENT CERTIFICATION

INSURANCE

Indemnification – To the extent permitted by law, Contractor shall defend, indemnify, and hold harmless Valley of the Moon Water District (District), its directors, officers, employees, and authorized volunteers from and against all claims, damages, losses and expenses, including reasonable attorneys' fees and costs to defend arising out of the performance of the work described herein, and caused in whole or in part by any negligent act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone whose acts any of them may be liable, except where caused by the active negligence, sole negligence, or willful misconduct of the District, its directors, officers, employees, and authorized volunteers.

Minimum Scope and Limits of Insurance: Contractor shall procure and maintain for the duration of the contract, and for 5 years thereafter, insurance against claims for injuries or death to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees, or subcontractors.

Coverage - Coverage shall be at least as broad as the following:

1. General Liability - Commercial General Liability (CGL) - Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 00 01) including products and completed operations, property damage, bodily injury, personal and advertising injury with limit of at least five million dollars (\$5,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (coverage as broad as the ISO CG 25 03, or ISO CG 25 04 endorsement provided to District) or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability - Insurance Services Office (ISO) Business Auto Coverage (Form CA 00 01), covering Symbol 1 (any auto) with a limit of one million dollars (\$1,000,000) for bodily injury and property damage each accident.
3. Workers' Compensation Insurance - The Contractor shall provide workers' compensation coverage as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with a limit of no less than \$1,000,000 per accident for bodily injury or disease. Waiver of Subrogation (also known as Transfer of Rights of Recovery Against Others to Us): The Contractor hereby agrees to waive rights of subrogation to obtain endorsement necessary to affect this waiver of subrogation in favor of the District, its directors, officers, employees, and authorized volunteers, for losses paid under the terms of this coverage which arise from work performed by the Named Insured for the District; this provision applies regardless of whether or not the District has received a waiver of subrogation from the insurer.
4. Builder's Risk – (Course of Construction) if necessary- insurance utilizing an "All Risk" (Special Perils) coverage form with limits equal to the completed value of the project and no coinsurance penalty provision. See Responsibility of Work
5. Contractor's Pollution Liability – (optional: if project involves environmental hazards) with limits no less than \$5,000,000 per occurrence or claim, and \$10,000,000 policy aggregate.

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

Other Required Provisions – The Commercial General Liability policy and Contractors Pollution (if necessary) are to contain, or be endorsed to contain, the following provisions:

1. Additional Insured Status: The District, its directors, officers, employees, and authorized volunteers are to be given insured status (at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of

both CG 20 10 10 01 and CG 20 37 10 01, with respect to liability arising out of work or operations performed by or on behalf of the 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 the Contractor's insurance.

2. Primary Coverage: For any claims related to this project, the Contractor's insurance coverage shall be primary at least as broad as ISO CG 20 01 04 13 with respect to the District, its directors, officers, employees, and authorized volunteers. Any insurance or self-insurance maintained by the District, its directors, officers, employees, and authorized volunteers shall be in excess of the Contractor's insurance and shall not contribute to it.

Notice of Cancellation: Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the District.

Acceptability of Insurers - Insurance is to be placed with insurers having a current A.M. Best rating of no less than A: VII or equivalent or as otherwise approved by the District.

The Contractor agrees and he/she will comply with such provisions before commencing work. All of the insurance shall be provided on policy forms and through companies satisfactory to the District. The District reserves the right to obtain complete, certified copies of all required insurance policies, including the policy declarations page with the endorsement number. Failure to continually satisfy the Insurance requirements is a material breach of contract.

Responsibility for Work - Until the completion and final acceptance by the District of all the work under and implied by this agreement, the work shall be under the Contractor's responsible care and charge. The Contractor shall rebuild, repair, restore and make good all injuries, damages, re-erections, and repairs occasioned or rendered necessary by causes of any nature whatsoever.

The Contractor shall provide and maintain builder's risk (course of construction) or an installation floater (for materials and equipment) covering all risks of direct physical loss, damage, or destruction to the work in the amount specified in the General Conditions, to insure against such losses until final acceptance of the work by the District. Such insurance shall insure at least against the perils of fire and extended coverage, theft, vandalism and malicious mischief, and collapse. The Policy shall be endorsed by the District, its directors, officers, employees, and authorized volunteers named as loss payees, as their interest may appear. The making of progress payments to the Contractor shall not be construed as creating an insurable interest by or for the District or be construed as relieving the Contractor or his/her subcontractors of responsibility for loss from any direct physical loss, damage or destruction occurring prior to final acceptance of the work by District.

Deductibles and Self-Insured Retentions - Insurance deductibles or self-insured retentions must be declared by the Contractor, and approved by the District. At the election of the District the Contractor shall either cause the insurer to reduce or eliminate such self-insured retentions as respects the District, its directors, officers, employees, and authorized volunteers or the Contractor shall provide a financial guarantee satisfactory to the District guaranteeing payment of losses and related investigations, claim administration, and defense expenses. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or the District.

Verification of Coverage - Evidences of Insurance Contractor shall furnish the District with copies of certificates and amendatory endorsements effecting coverage required by this contract. All certificates and endorsements are to be received and approved by the District before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The District reserves the right to require complete, certified copies of all required insurance policies, including policy Declaration pages and Endorsement pages, required by these specifications, at any time. Failure to continually satisfy the Insurance requirements is a material breach of contract.

Continuation of Coverage - The Contractor shall, upon demand of the District deliver evidence of coverage showing continuation of coverage for at least (5) years after completion of the project. Contractor further waives all rights of subrogation under this agreement. When any of the required coverages expire during the term of this agreement, the Contractor shall deliver the renewal certificate(s) including the general liability additional insured endorsement and evidence of waiver of rights of subrogation against District (if builder's risk insurance is applicable) to District at least ten (10) days prior to the expiration date.

Sub-Contractors - In the event that the Contractor employs other Contractors (sub-contractors) as part of the work covered by this agreement, it shall be the Contractor's responsibility to require and confirm that each sub-contractor meets the minimum insurance requirements specified above (via as broad as ISO CG 20 38 04 13). The Contractor shall, upon demand of the District, deliver to the District copies of such policy or policies of insurance and the receipts for payment of premiums thereon.

Other Considerations/Exceptions:

If scope includes Design/Build exposures include:

Professional Liability - with limits no less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.

Professional Liability maybe Claims Made Policies – include the following provisions.

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work.
3. 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, the Consultant must purchase "extended reporting" coverage for a minimum of five (5) years after completion of contract work.

GENERAL CONDITIONS

Safety - In the performance of this contract the Contractor shall comply with all applicable federal, state and local statutory and regulatory requirements including, but not limited to California Department of Industrial Relations (Cal/OSHA) regulations; and the U.S. Department of Transportation Omnibus Transportation Employee Testing Act, related to their scope of work and operations. In case of conflict in regulations, the most stringent shall apply. The Contractor shall provide all safeguards, safety devices, and protective equipment and take any other needed actions necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. Safety precautions shall include but shall not be limited to: adequate life protection and life-saving equipment; adequate illumination; instructions in accident prevention for all employees, such as the use of machinery guards, safe walkways, scaffolds, ladders, bridges, gangplanks, confined space procedures, trenching and shoring, fall protection, and other safety devices; equipment and wearing apparel as are necessary or lawfully required to prevent accidents, injuries, or illnesses (including but not limited to exposure to the Coccidioides fungus and Valley Fever); and adequate facilities for the proper inspection and maintenance of all safety measures

Contractor must obtain all applicable Division of Occupational Safety and Health (CAL-OSHA) permit(s) and others required by California Labor Code and California Government Code, prior to the initiation of any practices, work, method, operation, or process related to the work covered in the contract. Permits required by governmental authorities will be obtained at Contractor's expense.

It is a condition of this contract, and shall be made a condition of each subcontract which the Contractor enters into pursuant to this contract, that the Contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under Cal/OSHA safety and health standards.

The Contractor shall be responsible for the safeguarding of all utilities. At least two working days before beginning work, the Contractor shall call the Underground Service Alert (USA) in order to determine the location of sub-structures. The Contractor shall immediately notify District and the utility owner if he/she disturbs, disconnects, or damages any utility.

In accordance with Section 6705 of the California Labor Code, the Contractor shall submit to District specific plans to show details of provisions for worker protection from caving ground during excavations of trenches of five feet or more in depth. The excavation/trench safety plan shall be submitted to and accepted by District prior to starting excavation. The trench safety plan shall have details showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground. If such a plan varies from the shoring system standards established by the Construction Safety Orders of the California Department of Industrial Relations (Cal/OSHA), the plan shall be prepared by a California registered civil or structural engineer. As part of the plan, a note shall be included stating that the registered civil or structural engineer certifies that the plan complies with the Cal/OSHA Construction Safety Orders, or that the registered civil or structural engineer certifies that the plan is not less effective than the shoring, bracing, sloping or other provisions of the Safety Orders. In no event shall the Contractor use a shoring, sloping, or protective system less effective than that required by said Construction Safety Orders. Submission of this plan in no way relieves the Contractor of the requirement to maintain safety in all areas. If excavations or trench work requiring a Cal/OSHA permit are to be undertaken, the Contractor shall submit his/her permit with the excavation/trench work safety plan to the District before work begins.

In signing below, I hereby certify that I am able to obtain the above-referenced insurance and indemnification requirements and will have them in full force prior to signing the Contract Agreement with the District.

BIDDER:

(Name of Bidder)

Date: _____, 20__

By: _____
(Signature)

Name: _____
(Print Name)

Job Title: _____

BID FORM

THIS BID IS SUBMITTED BY:

(Firm/Company Name)

Re: **BOLLI WATER TANK RECOATING and RETROFIT Project # 3029, Sonoma, CA**

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with District in the form included in the Attachments "Contract Document Agreement", to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Sum and within the Contract Time indicated in this Bid and in accordance with all other terms and conditions of the Contract Documents and Bid.
2. Bidder accepts all of the terms and conditions of the "Contract Document Agreement", including this Bid packet in its entirety. This Bid will remain subject to acceptance for 90 Days after the day of Bid opening.
3. In submitting this Bid, Bidder represents that Bidder has examined all of the Documents, performed all necessary Pre-Bid investigations, and received the following Addenda:

Addendum Number	Addendum Date	Signature of Bidder

4. Based on the foregoing, Bidder proposes and agrees to fully perform the Work within the time stated and in strict accordance with the Contract and Bid Documents for the following sums of money listed in the following Schedule of Bid Prices:

ITEM #	BID ITEM	EST. QTY.	UNIT
1	Exterior and Interior Tank Recoating (two tanks, 400,000 gallons each) per Bid Specifications	1	Lump Sum
2	Tank modifications (railings, solar mounting brackets) per Bid Specifications	1	Lump Sum
TOTAL BASE BID AMOUNT described in words is:			

TOTAL BASE BID AMOUNT described numerically is:			
\$ _____ and _____/100			

ATTACHMENTS

AGREEMENT

THIS AGREEMENT, dated this [date] day of [Month], [202__], by and between [Name of Contractor] whose place of business is located at [Address of Contractor] ("Contractor"), and Valley of the Moon Water District ("District" or "District"), acting under and by virtue of the authority vested in District by the laws of the State of California.

WHEREAS, District, by Board approval at its meeting on [Month/Date/Year] awarded to Contractor the following Contract:

Bolli Water Tank Recoating and Retrofit Project # 3029

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and District agree as follows:

SCOPE OF Work OF THE CONTRACT

Work of the Contract

Contractor shall complete all Work specified in the Contract Documents, in accordance with the Specifications, Drawings, and all other terms and conditions of the Contract Documents.

Price for Completion of the Work

District shall pay Contractor the following Contract Sum of \$ _____ for completion of the Work in accordance with the Contract Documents as set forth in Contractor's Bid, attached hereto.

The Contract Sum includes all allowances (if any).

COMMENCEMENT AND Completion of Work

1. Exterior modifications and interior tank recoating to start by December 8th, 2025, and be completed and tank operational by March 20th, 2026. The earliest possible start date shall be Monday November 3rd, 2025. Please note that the contractor shall not work on November 27th or 28th, and December 24th, 25th, or 26th, 2025.
2. Exterior tank recoating to start immediately after interior tank recoating is finished and to be completed by May 29th, 2026.

Project REPRESENTATIVES

District's Project Manager

District has designated Matt Fullner, General Manager as its Project Manager to act as District's Representative in all matters relating to the Contract Documents.

District may assign all or part of the Project Manager's rights, responsibilities, and duties to a Construction Manager, or other District Representative.

Contractor's Project Manager

Contractor has designated [_____] or other as its Project Manager to act as the Contractor's Representative in all matters relating to the Contract Documents.

Liquidated Damages FOR DELAY IN COMPLETION OF WORK

Liquidated Damage Amounts

As liquidated damages for delay Contractor and District agree that a reasonable amount of damages for late completion is \$500.00 (five hundred dollars) per day for the first 7 calendar days starting the first day following the current contract completion date. Damages for late completion shall increase to \$1,000 (one thousand dollars) per day beginning the eighth calendar day following the current contract completion date, and for every calendar day thereafter during which the work remains uncompleted. The Contractor agrees to pay these sums as damages within 30 days of incurrence and agrees that they are not imposed as a penalty.

Contract Documents

*The Contract Documents consist of the following documents, including all Change Orders, Addenda, and Modifications thereto: **This bid package in its entirety.***

Miscellaneous

Terms and abbreviations used in this Agreement are defined in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions) and will have the meaning indicated therein.

It is understood and agreed that in no instance are the persons signing this Agreement for or on behalf of District or acting as an employee, agent, or representative of District, liable on this Agreement or any of the Contract Documents, or upon any warranty of authority, or otherwise, and it is further understood and agreed that liability of District is limited and confined to such liability as authorized or imposed by the Contract Documents or applicable law.

In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, Contractor or Subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. §15) or under the Cartwright Act (Chapter 2 (commencing with §16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time District tenders final payment to Contractor, without further acknowledgment by the parties.

Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are deemed included in the Contract Documents and on file at District's Office, and shall be made available to any interested party on request. Pursuant to California Labor Code §§ 1860 and 1861, in accordance with the provisions of Section 3700 of the Labor Code, every contractor will be required to secure the payment of compensation to his employees. Contractor represents that it is aware of the provisions of Section 3700 of the 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 Contractor shall comply with such provisions before commencing the performance of the Work of the Contract Documents.

This Agreement and the Contract Documents shall be deemed to have been entered into in the County of Sonoma, State of California, and governed in all respects by California law (excluding choice of law rules). The exclusive venue for all disputes or litigation hereunder shall be in the Superior Court for the County of Sonoma.

Dispute Resolution

In the event there are disputes and/or controversies relating to the interpretation, construction, performance, termination, breach of, or withdrawal from this Contract, the Parties involved shall in good faith meet and confer within twenty-one (21) calendar days after written notice has been sent to the Disputing parties. In the event that the parties are not able to resolve the dispute through informal negotiation, the parties agree to submit such dispute to formal mediation before litigation. If parties cannot agree upon the identity of a mediator within ten (10) business days after a party requests mediation, then the parties shall each select a mediator and those two mediators will select a third mediator to mediate the dispute. The parties shall share equally in the cost of the mediator or mediators who ultimately mediate the dispute, but neither party shall be entitled to collect or be reimbursed for other related costs, including but not limited to attorneys' fees. If mediation proves unsuccessful and litigation of any dispute occurs, the prevailing party shall be entitled to reasonable attorney fees, costs, and expenses in addition to any other relief to which the party may be entitled. If a party refuses to participate in mediation prior to commencing litigation, that party shall have waived its right to attorney fees and costs as the prevailing party.

IN WITNESS WHEREOF the parties have executed this Agreement in quadruplicate the day and year first above written.

CONTRACTOR: [CONTRACTOR'S NAME]

By: _____
(Signature)

Its: _____
Title (If Corporation: Chairman, President
or Vice President)

By: _____
(Signature)

Its: _____
Title (If Corporation: Secretary, Assistant
Secretary, Chief Financial Officer or
Assistant Treasurer)

DISTRICT: Valley of the Moon Water District

By: _____
(Signature)

(Print Name)

General Manager

Attest: _____
Deputy Secretary

(Print Name)

TECHNICAL SPECIFICATIONS

SPECIFICATIONS
BOLLI WATER TANK RECOATING AND RETROFIT
COATING OF TWO (2) EXISTING STEEL STORAGE TANKS

PART 1 - GENERAL

1.1 DESCRIPTION

The work to be done under this section consists of furnishing all necessary and required materials, equipment, and labor for preparing surfaces and applying protective coatings to all exterior surfaces of two (2) 400,000 gallon, welded steel water storage tanks – Bolli Water Tanks.

Additional tank modifications to be included in the bid are:

- On each tank, install 42" tall welded steel railings around the top perimeter of the tank from each side of the existing landing and railings. The existing railing is approximately 10 lineal feet, the remaining circumference requiring new railing is about 131 lineal feet.
- On each tank remove railing returns on existing railings (two at approximately 4' each)
- On the North tank only, weld 12 steel brackets to the top of the tank to mount a small solar array (array to be installed by District)

Care has been taken to delineate those surfaces to be coated and those surfaces not to be coated. However, if coating requirements have been inadvertently omitted from this or other sections of these specifications, it is intended that all exterior metal surfaces of the Bolli Tanks, unless specifically exempted, shall receive first-class protective coating equal to that given the same type of surface pursuant to these specifications.

Paint chips and dust must be contained and collected during the surface preparation operations and stored in approved sealed containers in a secure area prior to final disposal by the Contractor. Spent dry abrasive and coating residue generated during the interior surface preparation are to be considered to be disposed of under Raw Materials Recycling Program.

The Contractor's work includes providing properly certified personnel to assist with the development of the specified programs, conducting required testing to characterize waste, and monitoring and document compliance with worker protection and air emission requirements.

The requirements for the project are outlined in parts 1 through 3 of this specification. The submittals required from the contractor are outlined in section 1.10. All submittals shall be provided to the District for review and approval at least seven (7) days before beginning the work.

1.2 DEFINITIONS

- A. Hazardous Waste: paint debris can be classified as hazardous waste due to the characteristic of toxicity, as determined by testing in accordance with Title 22 California Code of Regulations (CCR), Division 4, Chapter 30, Article 11. Any substance(s) listed in Article 11, section 66699 at concentrations greater than their listed Soluble Threshold Limit Concentration (STLC) or Total Threshold Limit Concentration (TTLC) may need to be further characterized by the Toxicity Characteristic Leaching Procedure (TCLP) in accordance with 40 CFR 261 and other tests prior to disposal. Common paint TTLC standards for various substances are:

<u>STLC (mg/l)</u>	<u>TTLC (mg/kg)</u>
--------------------	---------------------

Barium	100	10,000
Cadmium	1	100
Chromium	5	500
Lead	5	500
Mercury	0.2	20
Zinc	250	5,000

- B. Contractor's Environmental Consultant: The independent, qualified third-party environmental firm retained by the Contractor to plan and conduct specified environmental testing of air and waste in accordance with regulations and this specification.
- C. GISO/CSO: Acronym for the General Industry Safety Orders and the Construction Safety Orders.
- D. Grade D Air: Air that meets criteria established by the Compressed Gas Association, Inc., and is required to be used in air-supplied respirators.

1.3 REFERENCES

All references shall be the latest published version, including editorial revisions.

- A. SSPC Vol. 1, Steel Structures Painting Manual, Vol. 1, Good Painting Practice.
 - B. SSPC Vol. 2, Steel Structures Painting Manual, Vol. 2, Systems and Specifications.
- (1) SSPC-SP 1 Solvent Cleaning
 - (2) SSPC-SP 5 White Metal Blast Cleaning
 - (3) SSPC-SP 6 Commercial Blast Cleaning
 - (4) SSPC-SP 7 Brush-Off Blast Cleaning
 - (5) SSPC-SP 10 Near White Metal Blast Cleaning
 - (6) SSPC-SP 15 Commercial Grade Power Tool Cleaning
 - (7) SSPC-SP 14/NACE No. 8 Joint Surface Preparation Standard Industrial blast Cleaning.
 - (8) SSPC-SP 16 Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals
 - (9) SSPC-AB 1 Mineral and Slag Abrasive
 - (10) SSPC-AB 2 Cleanliness of Recycled Ferrous Metallic Abrasives
 - (11) SSPC-PA 1 Shop, Field and Maintenance Painting
 - (12) SSPC-PA 2 Measurement of Dry Paint Thickness with Magnetic Gauges
 - (13) SSPC-PA Guide 3 A Guide to Safety in Paint Application
 - (14) SSPC-PA Guide 11 Protecting Edges, Crevices, and Irregular Steel Surfaces by Stripe Coating
 - (15) SSPC- Vis 1-89 Visual Standards for Abrasive Blast Cleaned Steel
 - (16) SSPC-Guide 6 Guide for Containing Debris Generated During Paint Removal Operations
 - (17) SSPC-Guide 7 Guide for the Disposal of Lead Contaminated Surface Preparation Debris

- C. NACE SP0178, Design, Fabrication, and Surface Finish Practices for Tanks and Vessels to Be Lined for Immersion Service
- D. ISO 8502-3 Preparation of Steel Substrates Before Application of Paints and Related Products
- E. AWWA D102, AWWA Standard for Painting Steel Water Storage Tanks

1.4 *MANUFACTURER'S REPRESENTATIVE*

A qualified technical representative of each coating system manufacturer shall be made available at the job site as required by the District to resolve problems related to the coating systems or the application of the systems.

1.5 *CRITERIA FOR CONTAINMENT*

Not applicable. The existing exterior coating system will not be removed.

1.6 *CRITERIA FOR CONTROLS OVER ENVIRONMENTAL EMISSIONS*

A. Ambient Air Quality For Particulate Matter

The Contractor shall be responsible for retaining a qualified, independent, third-party certified industrial hygienist to conduct real-time ambient air monitoring for particulate material and perform visual assessments of the containment structure. Perimeter ambient air monitoring shall be conducted in accordance with NIOSH Method 7105 or equivalent method having a detection limit of $0.5\mu\text{g}/\text{M}^3$ and shall be performed daily for the duration of exterior abrasive blasting. At a minimum, simultaneous collection points at the four points of the compass shall be used. The samples will be analyzed on a 24-hour turnaround basis by an AIHA-certified lab for total particulate, zinc, and lead. Allowable releases outside of containment shall not exceed $3\mu\text{g}/\text{m}^3$ for lead, or 10% of the Cal/OSHA PEL for any other element

While monitoring at various locations, the sampling technician will also make and record observations relative to the locations monitored and the effectiveness of the containment. Such visible monitoring will be done per EPA Method 22. The focus of the monitoring will be at downwind locations from any dust-generating activities. Visible emissions from the containment structure shall be limited to Level 1 emissions as defined in SSPC Guide 6 Section 5.5.1.1 General Surveillance. If at any time Level 1 emissions criteria are exceeded, the Contractor shall cease work and take immediate and effective corrective action before work resumes.

B. Soil Quality

The Contractor shall not contaminate the soil with spent abrasive or coating residue. The Contractor shall be responsible for the cost and coordination of soil testing. The Contractor shall collect samples in accordance with an approved sampling plan (reference section 1.9.F). Collection of pre and post-job samples shall be witnessed by the Engineer. Testing of soil samples shall be performed by an AIHA-certified laboratory. Testing shall determine levels of total lead, chromium, zinc, copper, and hazardous organic compounds in the soil prior to job start-up and upon completion. Laboratory analysis shall be conducted in accordance with EPA Method 3050. The Contractor shall be solely responsible for the removal of contaminated soil and site restoration if the post-job soil analysis shows an increase of 100 ppm or greater for lead, chromium, zinc, copper, or hazardous organic compounds.

C. Water Quality

The Contractor shall protect surface and groundwater from contamination by fugitive dust from abrasive blasting operations, overspray, spent abrasive and coating residue. The Contractor shall protect all drains and piping, including tank inlet, outlet, and overflow piping, from entry of spent abrasive. Paint debris and abrasives shall not be allowed to enter the storm sewer system. The Contractor shall be solely responsible for all clean-up in the event of contamination.

D. Residential Property

The Contractor shall protect all residential property from contamination by fugitive dust from abrasive blasting operations, overspray, spent abrasive, and coating residue. The Contractor shall be solely responsible for all clean-up in the event of contamination.

1.7 *CRITERIA FOR WORKER EXPOSURES TO LEAD*

Cal/OSHA requirements for worker protection as outlined in, GISO 8 CCR 1532.1 LEAD and 5144 RESPIRATORY PROTECTION shall be followed. These and all other Cal/OSHA standards and requirements are incorporated by reference into this technical specification.

1.8 *CRITERIA FOR THE HANDLING OF HAZARDOUS WASTE AND REPORTING RELEASES*

A. Testing of Debris

The Contractor shall be responsible for retaining trained and qualified personnel to perform required representative sampling of the paint and paint-related debris (waste) resulting from this work. Laboratory analysis for the purpose of testing waste for hazardous characteristics shall be performed by a California Department of Public Health (CDPH) Certified laboratory. A copy of the laboratory results shall be provided to the District for review prior to waste disposal.

Sampling, handling, transportation, and testing of spent media and paint debris shall be in accordance with an approved sampling plan submitted to the District. Collection of all samples shall be witnessed by the Engineer. In all cases, the debris shall be tested to determine if it is hazardous in accordance with CCR Title 22, Chapter 30, Article 11 Identification and Listing of Hazardous Waste. In addition, debris containing coal tar shall also be tested in accordance with EPA methods 8100 and 8270 to test for the presence of any hazardous organic compounds.

Dry Abrasive Blasting (Recycled and Non-recycled Abrasives).

Initial testing of debris generated during interior and exterior surface preparation shall be done in accordance with an approved sampling plan. No spent abrasive or coating residue will be removed from containment until the results of the initial tests are reviewed by the District, Contractor, and laboratory. In addition, no spent abrasive or coating residue will be removed from containment until proper handling procedures are established. A minimum of four representative samples of each waste stream is required. Any additional testing and waste profiling required by the approved waste disposal facility shall also be the responsibility of the Contractor. Laboratory analysis for the purpose of testing waste for hazardous characteristics shall be performed by a California Department of Health Services (DHS) Certified laboratory. A copy of the laboratory results shall be provided to the District for review prior to waste disposal.

The Contractor shall be responsible for the cost of all testing.

B. Hazardous Waste

If the tests of the debris in (A) show the waste to be hazardous, the following requirements shall apply:

1. Site Storage and Handling: The Contractor shall pay strict attention to the requirements of 40 CFR 261, 262, 263, 40 CFR 265, and Title 22 Ch. 30 for the on-site handling of debris, with special attention given to the time of storage, amount of material stored at any one time, use of proper containers, and personnel training. Paint debris shall be stored in a secure, labeled, sealed impervious container pending laboratory analysis and disposal. Paint debris shall not be placed on unprotected ground and shall be shielded adequately to prevent dispersion of the debris by wind or rainwater. Any evidence of improper storage shall be cause for immediate shutdown of the project until corrective action is taken.
2. Transportation and Disposal of Debris: The Contractor shall arrange to have the debris transported from the site in accordance with the requirements of 40 CFR 261, 262, 263 and 264, and disposed of properly in accordance with 40 CFR 268, GISO 8 CCR Articles 40 and 41, 49 CFR Parts 172, 173, 178 and 179 and Title 22, Ch. 30, Articles 5, 6, 6.5, and 8. The Contractor shall prepare waste manifests for review by the district. Upon waste pickup by the selected transporter, manifests shall be signed by the District, and copies received to verify that all steps of the handling and disposal process have been completed properly. Upon arrival at the landfill, weight tickets should be distributed to the District to verify the amount of waste received. The Contractor shall be responsible for all costs associated with the transportation and disposal of all wastes generated as a result of this work.
3. CERCLA Release: The Contractor is advised that discharge of ten or more pounds of lead (4 mils or less in diameter) into the atmosphere, water, or soil within a 24-hour period is considered a reportable quantity in accordance with 40 CFR 300 and 40 CFR 302 (July 2, 2001).

C. Non-Hazardous Waste

If tests of debris in (A) show the waste to be non-hazardous, the following requirements shall apply:

1. Site Storage and Handling: Waste will be properly stored in impervious containers with labels indicating the waste has been determined non-hazardous.
2. Transportation and Disposal of Debris: Transportation shall be accomplished in a manner that does not result in the reappearance to the environment while in transport to the selected landfill or recycling facility.
3. Disposal of Debris: Disposal shall be in accordance with the selected landfill or recycling facility requirements.

D. Recycled Waste

Waste (spent abrasive and paint chips) generated during work on interior and exterior surfaces that are found to be non-hazardous or capable of otherwise being managed under an Excluded Recyclables Materials Program with a waste recycling company such as California Portland Cement Company or approved equal is encouraged.

Under this program, the Contractor and the waste recycling company shall recycle the abrasive debris under the exemption allowed in the Health & Safety Code 25413.2 and California Code of Regulations (CCR) Title 22, 66261.6 (a) (3).

The recycling company shall provide the Contractor & District with a Recycling Certificate, certifying that the waste has been recycled as an ingredient in portland cement or other beneficial reuse as an aggregate.

1.9 SUBMITTALS

The Contractor shall provide all applicable permits for surface preparation and surface coating prior to the commencement of work and shall provide detailed written programs for each of the items below prior to beginning work.

The Contractor shall provide the name of his designated "Competent Person", or Supervisor as defined in 8 CCR 1532.1 (b) Definitions. The Competent Person shall be responsible for enforcing and documenting compliance with all written compliance programs as defined by Cal/OSHA and this specification.

A. Removal/Containment/Ventilation Plan

1. The Contractor shall provide a written plan for the methods to be employed for surface preparation, containment and ventilation, and collection of debris for both interior and exterior work. The plan shall reference the containment system to be used as described in SSPC-Guide 6, and as required in paragraph 1.6. When designing the system(s), the contractor shall recognize the load-bearing capacity and integrity of the structure to be painted. The Contractor shall have the containment and ventilation plan reviewed and stamped by a Professional Engineer and submit drawings for District approval.
2. Dust collection controls shall be employed to reduce worker exposure to airborne dust/lead particulate generated during interior and exterior surface preparation. Dust collection equipment shall be appropriate to maintain the containment under negative pressure. Fans with dust socks shall not be considered appropriate under any circumstances.

Vacuum collection shall be employed to recover spent abrasive, water, and coating particulate from the containment structure(s).

B. Programs for the Protection of the Ambient Air, Soil, and Water, and for Waste Classification

The Contractor shall submit the testing and evaluation programs that will be used to confirm that work does not violate Federal, State, and local regulations. Acceptance criteria are found in paragraph 1.7.

1. Ambient Air Quality: The Contractor shall submit a written program developed and signed by a qualified, independent, third-party certified industrial hygienist (Contractor's Environmental Consultant) for air monitoring at the project site. The plan will be

implemented for the duration of exterior surface preparation and shall be in accordance with the sampling procedure specified in paragraph 1.7A.

2. Soil Quality: The Contractor shall submit a written plan for the prevention of soil contamination. The plan shall contain elements as outlined in SSPC-Guide 6 – Guide for Containing Debris Generated During Paint Removal Operations, section 5.5.5 method E – Soil Analysis for Toxic Metals and shall address sampling at areas upwind and downwind of the tank; shall include a map of proposed sampling locations; shall include sampling protocol and shall include the method to be used to mark sampling sites. Sample locations shall remain marked for the duration of the project.
3. Water Quality: The Contractor shall submit a written plan for the prevention of surface and groundwater contamination. The plan shall reference the containment system to be used as described in SSPC-Guide 6, and as required in paragraph 1.6.

C. Worker Protection Program

The Contractor shall submit the following worker protection program.

1. The Contractor shall provide the following written programs at a minimum in accordance with CCR 8 Section 1532.1 Subsection e. Methods of Compliance, subsection (2) Compliance Program.
 - a) Exposure Monitoring: A written program for determining the level of airborne lead that workers are exposed to for all tasks that disturb lead. Monitoring shall be performed in accordance with 8 CCR 1532.1 (d) Exposure Assessment.
 - b) Respiratory Protection Program: A respiratory protection program as required by 8 CCR 1532.1 (f). Documentation that all employees have passed respirator fit tests and have been assigned individual respirators must be submitted prior to the start of the job. At a minimum, Type CE respirators and Grade D air must be provided during all abrasive blasting operations.
 - c) Personal Hygiene: A description of the personal hygiene facilities and practices to be used, and protective clothing controls as required by 8 CCR 1532.1 (g), (h), and (i).
 - d) Medical Surveillance Program: A medical surveillance program including the mechanism for submitting pre-job and post-job blood level results, and a statement that employees will be removed from the work site if blood lead levels exceed the thresholds established in 8 CCR 1532.1 (j) and (k).
 - e) Employee Training: A copy of the employee training program in accordance with the requirements of 8 CCR 1532.1 (l) Employee Training and Certification.
 - f) Employee Access to Records: A statement that the employee has been informed of the hazards on the project, and of his or her right of access to exposure and medical records as required by 8 CCR 1532.1 (n) Record Keeping.

- g) Hazard Communication: A copy of the Contractor's hazard communication program as required by 8 CCR 5194 Hazard Communication.
- h) Warning Labels and Signs: A statement confirming that labels and signs meeting the following criteria will be posted in and around the work area: To be a minimum of 20 X 14 inches and include the phrase "Caution Lead Hazard, Keep Out Unless Authorized" in minimum 2 inch high letters. Cal-OSHA lead warning posters shall state: "Warning - Lead Work Area, Poison, No Smoking or Eating."

D. Sampling, Handling, Testing, and Disposal of Debris

The Contractor shall provide the following:

1. Handling, Site Storage, and Testing: A written plan that addresses the sampling, handling, site storage and testing/classification of all debris in accordance with the requirements of 40 CFR 261, 262, 263, 40 CFR 265, 49 CFR Parts 172, 173, 178, and 179 and CCR Title 22 Chapter 30, and as required in section 1.9. The plan shall contain all elements outlined in SSPC-Guide 7 – Guide for the Disposal of Lead-Contaminated Surface Preparation Debris. The contractor shall confirm that an EPA identification number will be obtained, that proper manifesting of the waste will be addressed and that all site storage limitations, including the time of storage, container requirements, contingency plan, and personnel training, will be observed. The District shall be responsible for obtaining the EPA I.D. number.
2. Transportation and Disposal: A written confirmation that the debris will be treated and disposed of in accordance with 40 CFR 261, 262, 263, 264, 40 CFR 268, 49 CFR Parts 172, 173, 178, and 179, and/or Title 22 CCR Chapter 30, and in accordance with section 1.9. The program shall provide assurance that the debris is handled properly from cradle to grave, include the necessary notifications and certifications on shipments, provide the name of the disposal facility, and include a schedule for the submittal of the completed manifests to the District.
3. CERCLA Release: The Contractor shall submit a plan for reportable releases in accordance with 40 CFR 300 and 40 CFR 302.

E. General Safety Requirements

1. Confined Space: The Contractor shall submit a confined space entry, exit, and emergency plan in accordance with 8 CCR 5158 Other Confined Space Operations.
2. Lighting: A written confirmation that the Contractor shall provide adequate lighting and ventilation for safe working conditions and inspection purposes in accordance with all applicable safety regulations and requirements by regulatory agencies and the coating manufacturer.
3. Ventilation: A written confirmation that the Contractor shall provide adequate ventilation as required by 8 CCR 5158, ANSI Standard Z9.4 - 1968 for safe working conditions and inspection purposes.

4. Secondary containment: A written confirmation that the Contractor shall provide secondary containment for all operating equipment and paint storage.
5. Other Safety: A written confirmation that the Contractor shall provide and require the use of personal protective equipment (PPE) for persons working on or about the work site in accordance with GISO 8 CCR Subchapter 4, Articles 4, 14, 15, 18, 21, 22, 23, 24, 25, 28 and 36. Such equipment shall, as a minimum, properly address protection in the following categories: head and face protection, respiratory devices, ventilation, sound levels, illumination, and temporary ladders and scaffolding.

F. Coating Materials

1. Submit a list of coating materials to be provided. Include thinner and bond solvent.
2. Submit two (2) brush-out samples of tank exterior finish color. Tank finish color shall match Tnemec 90 GN Brahm Grass (Semi-Gloss).
3. Submit the coating manufacturer's current specification or technical information proving compliance with the specified requirements, and curing schedule for anticipated environmental conditions (steel temperature, humidity, etc.).
4. Submit certification from the coating manufacturer stating coating system materials provided comply with the current specifications or technical information submitted.
5. Submit the coating manufacturer's latest written instructions for all coating system materials storage, surface preparation, stripe coat application, coating repair, mixing and application, ventilation, and curing of coating system. Include maximum and minimum storage temperatures, maximum and minimum surface temperatures, special preparation of painted surface when recoat time has been exceeded, curing time required prior to performing holiday detection testing., and minimum adhesion values of the total system per ASTM D-4541 (type II fixed alignment adhesion tester).

G. Abrasives

The Contractor shall submit written confirmation that all abrasives used on the job are clean and free from all contaminants and hazardous compounds. If requested by the District, the Contractor shall provide, at his expense, test results verifying the above.

H. Contractor Qualifications

The Contractor must have a minimum of five (5) years' experience with the application of NSF epoxy linings in potable water storage reservoirs. Experience must include a minimum of one (1) lining project per year using NSF epoxy application equipment.

The Contractor shall submit written verification of experience as described above, and that the workers to be employed on this project are knowledgeable and experienced in preparation for and application of the coatings to be used. The Contractor shall submit documentation from the coating manufacturer that he is an approved applicator of the selected coating material.

Where a plural component pump and equipment are used, the Contractor shall provide a dedicated operator to monitor the operation of the pump during the coating process. The dedicated operator must have a minimum of two years of experience operating plural component system pumps and equipment.

The Contractor shall submit proof of experience and proof of certification for the dedicated operator.

PART 2 - PRODUCTS

2.1 COATING SYSTEMS AND DISTRICT APPROVED PRODUCTS

A. Tank Interior (TIS)

System TIS1: TNEMEC Pota-Pox Series.

No substitutions

B. Tank Exterior Overcoat (TR) - including all appurtenances affixed to the tank (i.e. ladder, vents, etc.)

TNEMEC Endura-Shield series.

No substitutions

B. Electrical Enclosures: TNEMEC exterior overcoat system same as tank color.

C. Caulking

1. Sika - Sika flex 1a or District-approved equal

2. Caulking Adhesion

Caulking material shall be applied in accordance with the manufacturer's recommended procedure. For immersion service, use of appropriate primer is recommended. If required by the Engineer, the Contractor shall provide at no additional cost, all material, equipment, and labor to perform tests for demonstrating proper adhesion of the caulking material to the coating system.

2.2 ABRASIVE GRIT

INTERIOR BLAST CLEANING

A. Underside Roof, Shell, and Floor - Conform to SSPC-AB 1. Type I or Type II, Class A

- B. Angular and properly graded to produce a sharp, angular profile and to produce a minimum profile height of 3.5 mil unless otherwise recommended by the manufacturer of the coating which is to be applied.
- C. New, clean, and free of contaminants and containing no hazardous materials.
- D. Certified by California Air Resources Board, Executive Order G-565.
- E. Conform to all applicable requirements of Bay Area Air Quality Management District.
- F. Except: Do not use nickel slag.

2.3 *THINNERS AND SOLVENTS*

- A. Use only thinners and solvents as specified in the coating manufacturer's technical data or specifications. Substitutions will not be allowed.
- B. Thinners and solvents shall be used for cleaning only

2.4 *DELIVERY, STORAGE, AND HANDLING*

A. DELIVERY

The coating materials shall be furnished by the Contractor and delivered to the job site in their original unopened containers which shall bear the manufacturer's name, batch number, and date of manufacture. Requests for substitutions shall be submitted for possible approval in writing prior to delivery. Material Safety Data Sheets must accompany all materials on site.

All coating materials shall be labeled and used in accordance with SSPC-PA 1, Paragraphs 5.1.1 through 5.1.5.

Except: All coating system materials without a stated shelf life shall be delivered and used within six months of the date of manufacture.

Except: Certification, from any source, that coating system materials are still suitable for use beyond the stated shelf life or beyond the six-month period specified above will not be accepted.

The contractor shall deliver abrasive grit in moisture-proof bags or airtight bulk containers.

B. STORAGE

All coating materials shall be stored so as to conform with all safety regulations for flammable or hazardous materials. The contractor shall:

Store materials in a single, approved location.

Store coating system materials in enclosed and ventilated structures. Maintain temperature inside the structure within the temperature range recommended by the manufacturer.

Keep storage location clean, neat, and free of fire hazards. Keep abrasive grit dry and clean.

C. HANDLING

The contractor shall NOT spill thinners, solvents, paint products, or other materials that contain toxic substances.

Remove discarded thinners, solvents, and paint products from the job site daily.

2.5 COATING SCHEDULE

A. Interior

1. Complete Removal.
2. Surface Preparation: SSPC-SP10/NACE No. 2 Near-White Blast Clean to create a dense, uniform, and angular surface profile of 2.0 mils.
3. Prime: [Series 91-H2O | Hydro-Zinc](#); 2.5 to 3.5 mils DFT
4. Stripe Coat: [L140 Porta-Pox Plus](#) -15BL Tank White; Brush-applied to all bare and corroded surfaces, sharp edges, welds, nuts and bolts per SSPC-PA 1, 6.6 Striping, 7.4.6 Application Method.
5. Intermediate: [L140 Porta-Pox Plus](#) -1255 Beige; 4.0 to 6.0 mils DFT
6. Finish: [L140 Porta-Pox Plus](#) -15BL Tank White; 4.0 to 6.0 mils DFT
7. **Total DFT: 10.5 to 15.5 mils**

B. Exterior – Overcoat including all appurtenances affixed to the tank (i.e. ladder, vents, etc.)

Note: existing coating believed to be a water-based acrylic.

1. Surface Preparation: SSPC/NACE WJ-4 Low Pressure Water Cleaning with a 0 degree orifice revolving nozzle at 3,500 psi minimum followed by aggressive scarification (i.e. cross sanding) to provide a uniform anchor profile of no less than 1.0 mil. All surfaces must be sound, clean, dry, and uniformly roughened.
2. Spot Prime: Series 135 | Chembuild; 4.0 to 6.0 mils DFT to bare substrate / damaged coating / edge rust / chime edges
3. First Coat: Series 115 | Uni-Bond DF; 2.0 to 3.0 mils DFT
4. Second Coat: Series 1028 | Enduratone- 90 GN "Brahm Grass" (Semi-Gloss); 2.0 to 3.0 mils DFT
5. **Total DFT: 9.0 to 13.0 mils**

Where the number of coats or dry film thickness is specified, they shall be considered a minimum. The Contractor shall apply additional coats as necessary to achieve the specified total dry film thickness.

C. The Contractor Shall:

Include the Caulking of interior seams, crevices, roof plate overlays, skip welds and inadequately joined areas following application of interior coating. Thickness of caulking shall be ¼" to ½".

PART 3 - EXECUTION

3.1 GENERAL

Scheduling of all work shall be approved by the District in advance. Tank modifications shall be completed prior to coating application. Interior and exterior coatings shall be removed as required to allow for the installation of all tank modifications. Additional specified surface preparation will be required following the installation of tank modifications.

The interior floor and lower two feet of shell shall be abrasive blasted and all spent abrasive removed prior to any work on the remaining shell or roof areas so that a visual inspection, and repairs if necessary, can be made. Additional abrasive blasting will be required following inspection, repairs, and installation of accessories.

No dehumidification will be required during the initial abrasive blasting of the floor (blast for inspection) and accessory installation.

In general, work shall proceed so that coatings are not damaged by the Contractor's equipment or procedures.

3.2 SURFACE PREPARATION

A. Interior

1. Protection of Existing Facilities

a. Prevent blast media, paint, or other foreign material from entering open piping.

- i. The contractor is advised that tank piping may leak. The contractor shall provide means to seal leaks water-tight and provide a dry environment in which to work.
- ii. The exterior center roof vent shall be removed prior to abrasive blasting and the opening covered by the contractor. The opening shall remain sealed throughout the coating operation and curing.
- iii. At all times, abrasive shall be prevented from scoring or damaging machined surfaces on valves or other equipment. Bearings and bearing surfaces shall be protected from damage or contamination by abrasive, dust or coating materials.
- iv. The contractor shall remove all interior anodes, brackets, and wiring prior to any abrasive blasting.

2. Defects in Welds and Steel

- a. Remove weld splatter and defects in steel such as delaminations, sharp edges, and slivers by grinding as directed by the District and in accordance with NACE SP0178. All areas where grinding is performed shall be subsequently abrasive blasted to the degree specified prior to the application of any coating.
- b. Only electric grinders shall be permitted.

3. Galvanized Surfaces

Abrasive blast galvanized surfaces in accordance with SSPC SP-16 to provide the specified degree of surface cleanliness and profile. Prior to coating, grind any rough edges or delaminated galvanizing that remain following abrasive blasting. All areas where grinding is performed shall be subsequently abrasive blasted to the degree specified prior to the application of any coating.

4. Abrasive Blast Cleaning

a. Blast for Inspection

All surfaces of the floor and lower two feet of the bottom shell ring shall be prepared by dry abrasive blast cleaning using compressed air and blast nozzles to achieve a degree of cleanliness as defined by SSPC-SP14, and as indicated in, Coating Schedule.

Remove all spent abrasive and coating residue from tank interior to allow for inspection. Re-blast floor and lower two feet of bottom shell ring to Near-White (SSPC-SP-10) surface prior to coating.

b. Blast for Coating

All interior surfaces shall be prepared by dry abrasive blasting to a Near-White (SSPC-SP-10) surface, as indicated in Coating Schedule. The completed surface shall have at least 95% of each element of surface free of all visible residues.

If required by the Engineer, the Contractor shall provide at no additional cost the material, equipment, and labor to perform tests (test panel) for demonstrating the standards for surface preparation as stipulated above.

The type and size of abrasive particles used shall be that which will produce a sharp, angular profile with a minimum profile height of 1.5-2.5 mil unless otherwise recommended by the manufacturer of the coating which is to be applied.

All abrasive blasting shall be completed prior to application of coating material.

5. Environmental Control

- a. Provide dehumidification, heat, and ventilation to establish and maintain a minimum surface temperature of 60° degrees Fahrenheit, and the specified relative humidity, and dew point in the tank; and to provide the specified ventilation and dust control

- b. Dehumidification, heat, and ventilation equipment shall be used to control the environment in the tank interiors, hereafter referred to as the space:
 - i. For 24 hours prior to blast cleaning and then continuously 24 hours a day, 7 days a week during blast cleaning, coating, and final coating cure.
 - ii. For the final cure period established by the coating manufacturer based on dry film thickness, surface temperature, and humidity. The final cure period shall commence upon completion of all touch-up and remedial work.
- c. The Contractor shall provide a chart recorder to monitor the interior ambient conditions including air temperature, steel temperature, dew point, and relative humidity during the night. A chart containing the environmental information shall be provided to the Engineer on a daily basis.
- d. Equipment shall conform with the following requirements:
 - i. The dehumidifier shall be a solid desiccant design having a single rotary desiccant bed capable of continuous operation, with fully automatic operation. No liquid desiccant, granular, or loose lithium chloride drying systems shall be accepted. The dehumidification equipment shall have working hour meters.
 - ii. Dehumidification equipment shall continuously deliver air with a maximum relative humidity of 11% sufficient to supply the space with (2) two complete air changes per hour.
 - iii. Dehumidification equipment shall supply sufficient dry air to assure that the air adjacent to the surfaces to be abrasive blasted or coated shall not exceed 35% relative humidity at any time during the blasting, coating, or curing cycle.
 - iv. Dehumidification equipment shall be capable of depressing the dew point in the space 10° degrees below ambient air temperature within twenty minutes.
 - v. Noise levels of dehumidification, heat, and ventilation equipment shall not exceed 50dB at 7 meters full open at any time during the operation of said equipment. The Contractor shall provide power for operating the equipment. The equipment shall be soundproofed to minimize disturbance to surrounding residences during overnight operation. Appropriate soundproofing material includes but is not limited to rolled fiberglass insulation, rigid foam insulation, and/or acoustical blankets.
- e. Auxiliary heaters or chillers may be necessary to maintain the surface temperature at a level acceptable to the coating manufacturer's application parameters. This auxiliary equipment must be approved for use by the manufacturer of the dehumidification equipment and shall meet the following requirements:
 - i. Heaters and coolers shall be installed in the process air supply duct between the dehumidifier and the space as close to the space as possible.

- ii. Only electric or indirect gas-fired auxiliary heaters shall be used. No direct-fired space heaters will be allowed during the blasting, coating, or curing phase.
 - iii. Heaters shall be equipped with controls that automatically turn the heater off if the airflow is interrupted or the internal temperature of the heater exceeds its design temperature or that of the supply duct.
 - iv. Air heaters or refrigeration equipment are not acceptable as a substitute for dehumidification.
- f. Provide exhaust air dust collector to prevent discharge of dust to outside air. The space to be controlled shall be sealed off as well as possible allowing air to escape at the bottom of the space away from the point where the dehumidified air is being introduced.
 - i. The dust collection system must be designed to match but not exceed the air volume of the dehumidification equipment. Do not re-circulate the air from the space or from the filtration equipment back through the dehumidifier. During coating application, ventilated air shall be discharged at not less than one air change per hour.
- g. Clean dehumidification filters prior to the start of dehumidification and clean weekly thereafter. More frequent cleaning may be required if recommended by the manufacturer
- h. Dehumidification ducting shall meet the following requirements:
 - i. Mechanically connected and sealed with duct tape at joints.
 - ii. Extend to the center of space and attach to a diffuser that will distribute air equally throughout space.

6. Cleaning of Surfaces

Immediately preceding the application of any coating, all surfaces shall be cleaned of dust or foreign matter using an approved vacuum system. Surface cleanliness shall be verified by wipe and/or tape test in accordance with ISO-8502-3 (grade 2).

The contamination of freshly painted surfaces by dust or foreign matter shall be prevented or shall be corrected by subsequent cleaning to the specified degree of surface preparation.

B. Exterior

1. Surface Preparation – SSPC/NACE WJ-4

3.3 COATING APPLICATION

A. Interior

1. Obtain Engineer's evaluation and approval of steel surface preparation immediately prior to coating application. No coating may be applied until the surface cleanliness has been approved by the Engineer.
2. Obtain Engineer's evaluation and approval of cleanliness of previous coat immediately prior to second coat or repair coat application.
3. All coating shall be mixed and applied in strict conformity to the coating manufacturer's recommendations, applicable portions of the Steel Structures Painting Council Manual Volume 1, and as specified herein. The Contractor shall use touch-up kits supplied by the coating manufacturer for touch-up and repairs.
4. For tank interior system T1, all sharp edges, pits, irregular surfaces, seams, crevices, skip welds, weld seams, roof plate overlaps, and other inadequately joined surfaces shall receive one stripe coat as recommended by the coating manufacturer. The stripe coat shall be a separate coat applied prior to application of a full prime coat. All stripe coating material shall be worked into the surfaces using steady, continuous brush strokes. No dabbing will be allowed. Thinning of stripe coat material will not be allowed.
5. For tank interior system T1, application shall be applied evenly, free of brush marks, sags, runs, and pin holes with no evidence of poor workmanship. Finished coating shall be uniform in color and gloss over the entire surface and shall be smooth to the touch, free of sags, runs, overspray, cracks, pinholes, pores, or other surface defects.
6. Complete coating; dry film testing; holiday detection and repairs on all surfaces above the floor prior to coating the floor.
7. Apply all coatings using heated plural component airless equipment as recommended by the coating manufacturer.
8. Coating repairs shall be made in accordance section 3.5.
9. Coating material shall be stored, mixed, and applied at temperatures recommended by the coating manufacturer.
10. Discard all catalyzed coatings at the end of each working day or at the end of the manufacturer's recommended pot life, whichever is first.
11. Scaffolding or other support systems shall be free of all abrasive media, dirt, and other foreign matter during coating application.
12. Remove all empty paint buckets from the job site daily.

B. Exterior

1. Obtain Engineer's evaluation and approval of steel surface preparation immediately prior to coating application.

2. Obtain Engineer's evaluation and approval of cleanliness of previous coat immediately prior to second coat or repair coat application.
3. All coating shall be mixed and applied in strict conformity to the coating manufacturer's recommendations, applicable portions of the Steel Structures Painting Council Manual Volume 1, and as specified herein. The Contractor shall use clear measuring cups or graduated measuring devices approved by the Engineer to verify proper ratio of components when mixing partial kits.
4. Apply all coatings with airless spray except areas less than six (6) square inches may be brushed. Application by roller shall be permitted in areas where overspray is a concern.
5. Each application shall be applied evenly, sufficient to hide the preceding coat; shall be even in color and appearance; and shall be free of brush marks, sags, runs, and pin holes with no evidence of poor workmanship.
6. Remove all empty paint buckets from the job site daily.

3.4 APPLICATION EQUIPMENT

A. Interior

1. Fluid tip shall be new and shall be sized as recommended by the coating manufacturer
2. Use clean fluid lines not previously used to apply zinc-rich or water-based coating materials.
3. Clean equipment using only products recommended by the coating manufacturer.
4. Blow lines to remove all thinners prior to painting.

B. Exterior

1. Use airless spray pump with a minimum 30:1 pressure ratio. Pump shall have a moisture trap, anti-freeze device, and fluid filter.
2. Fluid tip shall be new and shall be sized as recommended by the coating manufacturer
3. Use 3/8" minimum interior diameter fluid hose.
4. Use clean fluid lines not previously used to apply water-based coating materials.
5. Clean equipment using only products recommended by the coating manufacturer.
6. Blow lines to remove all thinners prior to painting.

3.5 COATING REPAIRS

A. Interior

1. Touch-up or refinish all chipped, abraded, or otherwise unsatisfactory portions of the work in accordance with the manufacturer's recommended procedures.
2. Recoating or touch-up areas that have cured beyond the maximum recoat time as stated by the coating manufacturer require special preparation.
 - a. Sweep blast area 3" into the surrounding area. Sweep blast under low pressure to uniformly abrade the surface and feather edges. Feather edges by sanding or other means acceptable to the Engineer.
 - b. Remove abrasive blast residue from blasted area with special attention to areas of intact coating adjacent to newly blasted areas.
 - c. Clean the area with a bond solvent as recommended by the coating manufacturer.

B. Exterior

1. Touch-up or refinish all chipped, abraded, or otherwise unsatisfactory portions of the work in accordance with the manufacturer's recommended procedures.

3.6 *ENVIRONMENTAL CONDITIONS*

A. Interior

1. Provide environmental control and monitoring in accordance with section 3.2 A.5.a through h.
2. Do not abrasive blast or apply coating when the surface temperature is less than 5 degrees Fahrenheit above the dew point.
3. Apply coatings only when conditions are within the limits prescribed by the coating manufacturer, but, in any case, do not apply coatings when:
 - a. Surface temperature is less than 60° degrees Fahrenheit
 - b. Relative humidity is greater than 35 percent
 - c. Surface temperature is greater than 120° degrees Fahrenheit
 - d. When the temperature is rising and is within 5° degrees Fahrenheit of the surface and/or ambient maximum temperature for the coating being applied.
4. Coating material shall be kept at least 5° degrees Fahrenheit below the manufacturer's maximum allowable temperature.

B. Exterior

1. Do not perform surface preparation operations or apply coating when the surface temperature is less than 5° degrees Fahrenheit above the dew point.
2. Apply coatings only when conditions are within the limits prescribed by the coating manufacturer, but, in any case, do not apply coatings when:
 - a. Surface temperature is less than 45° degrees Fahrenheit
 - b. Relative humidity is greater than 85 percent or expected to reach 85% within 6 hours after application of coating.
 - c. Surface temperature is greater than 110° degrees Fahrenheit
 - d. When the temperature is rising and is within 5° degrees Fahrenheit of the surface and/or ambient maximum temperature for the coating being applied.
3. Coating material shall be kept at least 5° degrees Fahrenheit below the manufacturer's maximum allowable temperature. Protect material from freezing.
4. Dew point shall be determined by the use of a psychrometer supplied by the Engineer.

3.7 *OMISSION*

Care has been taken to delineate those surfaces to be coated and those surfaces not to be coated. However, if coating requirements have been inadvertently omitted from this or other sections of these specifications it is intended that all metal surfaces, unless specifically exempted, shall receive first-class protective coating equal to that given the same type of surface pursuant to these specifications.

3.8 *INSPECTION AND TESTING*

- A. Upon request by the Engineer, the Contractor will perform the following inspections to ensure compliance with the surface preparation requirements:

1. Compressed Air Cleanliness

The compressed air supply shall be inspected for use of inline dryers and oil traps. The proper functioning of the traps shall be evaluated at least once daily by allowing the air supply down line from the traps to blow against a clean white blotter for two minutes. No moisture or oil should be deposited on the cloth.

2. Blast Nozzle Air Pressure

The air pressure at the blast nozzle shall be determined through the use of a hypodermic needle air pressure gage. The minimum pressure at the nozzle shall be 95 P.S.I. The needle of the gage will be inserted as close to the nozzle as is practically possible and in the direction of the nozzle. Pressure readings will be taken with the blasting system in complete operation.

3. Wet Film Thickness Measurement

The Contractor shall measure wet film thickness during application of coating to ensure adequate coating thickness. Take at least one measurement every 100 square feet.

4. Coating Finish and Dry Film Thickness (DFT)

The surface and DFT of each coat shall be inspected and measured. The DFT of the final coat shall be measured in accordance with SSPC-PA-2. The Engineer or his representative shall be responsible for performing DFT measurements. The contractor shall witness the DFT testing and provide labor for moving scaffolding at the direction of the Engineer.

5. The Contractor shall, in the presence of the Engineer, test the finish coat on all interior surfaces with a low-voltage wet sponge holiday detector in accordance with the most current version of NACE SPO188 . The coating on sharp edges and crevices shall be compared to flat areas having the required thickness. Perform holiday detection on surfaces of under-side roof after application and cure of caulking. Allow sufficient cure time for caulking prior to performing holiday detection. High voltage holiday detector shall be equal to Tinker-Razor M-1

B. The Engineer may, at minimum, perform the following inspections to ensure compliance with the coating application requirements:

1. Degree of Surface Cleanliness

The surface cleanliness shall be inspected after the completion of surface preparation and before the application of any coating. Testing for the presence of dust shall be done using a tape test, wipe test, or both in accordance with ISO-8502-3. The Contractor shall provide adequate lighting, scaffolding, and labor for all inspection at times determined by the Engineer. The requirements defined in section 3.2 shall be applicable to 100 percent of the prepared surfaces. NO COATING MAY BE APPLIED UNTIL THE SURFACE CLEANLINESS HAS BEEN APPROVED BY THE ENGINEER.

2. Anchor Profile

The anchor profile of the abrasive blasted interior surfaces shall be a minimum of 1.5-2.5 mils. The anchor profile of the abrasive blasted exterior surfaces shall be as recommended by the coating manufacturer. The anchor profile will be measured by using the Press-O-Film System (Testex Tape) or equal system that meets ASTM D4417 requirements.

3. Coating Materials

The coating materials shall be visually inspected by the Engineer for compliance. Dates and lot numbers of materials applied that day will be recorded.

4. Mixing and Application of Coatings

Mixing and application of all coatings shall be visually inspected by the Engineer to ensure compliance. Thinning of materials used for interior coating will not be allowed. NO COATING

SHALL BE MIXED OR APPLIED WITHOUT THE PRESENCE OF THE ENGINEER OR HIS REPRESENTATIVE.

5. Wet Film Thickness Measurement

The Engineer shall measure wet film thickness during application of coating to ensure adequate coating thickness.

6. Coating Finish and Dry Film Thickness (DFT)

The surface and DFT of each coat shall be inspected and measured as outlined in section 3.8 A above.

3.9 *FINAL CLEANUP AND DISPOSAL OF ABRASIVE*

The interior and exterior of the tank and all surfaces shall be cleaned of all abrasive and other debris after completion of coating operations. Following completion of work, the Contractor shall remove all used abrasive and debris from the work site and dispose of it in a suitable location in accordance with these technical specifications. During all phases of the work, the Contractor shall deliver all residue materials to sealed drums suitable for the type of contaminated residue. Final cleanup shall include all procedures required for the proper disposal of all residue and contaminated abrasive. In addition, during the course of work, the Contractor shall maintain the site in a neat, orderly, and safe condition. Used abrasive and coating residue shall be stored in a manner to prevent contamination of coatings, damage to private property, operation problems for District personnel, or contact by other than the contractor's or District personnel.

3.10 *CURING*

The interior coating system shall be subjected to a cure period established by the coating manufacturer based on dry film thickness, surface temperature, and humidity. The cure period shall commence upon completion of all touch-up and remedial work. The surface temperature shall be maintained at temperatures as recommended by the coating manufacturer.

- A. Dehumidification, heating, and ventilation equipment shall be used for the duration of the curing period.
- B. More curing time or a higher temperature shall be provided if recommended by the coating manufacturer.
- C. Deliver air to the center of space through continuous flexible duct.
- D. Remove roof vent covers during curing period.

3.11 *COMPLETION OF WORK*

When complete cure of interior coating has been achieved, and all exterior coating is complete, the tank will be cleaned and filled as listed in paragraphs A through C below. Prior to any cleaning operations, the Contractor shall submit a letter to the District stating the tank lining is fully cured and the tank is ready to be placed into service.

A. TANK CLEANING

Following full coating cure, and prior to filling, the contractor shall clean the tank by thoroughly hosing down all surfaces with a high-pressure hose and nozzle of sufficient size to deliver a minimum flow of 50 gpm. All water, dirt, and foreign material accumulated in this cleaning operation shall be discharged from the structure or otherwise removed. The contractor shall be responsible for de-chlorinating and follow all the District's NPDES permit requirements for all rinse water to be discharged from the tank.

The Contractor shall supply all hoses, and pumps, and shall make all necessary provisions for conveying the water from the Engineer designated source to the points of use, including purchasing the water from the District.

B. FILLING TANK/SOAKING TANK

Following rinsing, the tank will be filled with water to a level specified by the District and allowed to soak for 5 days.

C. WATER QUALITY TESTS

1. After allowing the tank to sit for five days at maximum elevation, the District will collect samples and test for volatile organic compounds (VOC's), total coliform bacteria, threshold odor number (TON), and flavor threshold number (FTN).

- a. VOC

VOC concentrations will be determined in accordance with EPA method 524.2. If any VOC is detected, the Contractor shall perform all additional work needed to cure the material and shall be responsible for all costs associated with retesting until all VOC analytical results are non-detect. Water used for testing and disinfection procedures shall be disposed of as required by applicable regulations.

- b. Total Coliform Bacteria

The Total Coliform Bacteria will be determined in accordance with the 21st edition of the Standard Methods for the Examination of Water and Wastewater as published by APHA, AWWA, and WEF. If the sample is coliform present, the contractor shall perform additional work as needed to achieve a coliform-absent sample. The additional work may be determined by the District. Water used for testing and disinfection procedures shall be disposed of as required by applicable regulations.

c. Threshold Odor Number

The Threshold Odor Test will be performed in accordance with the 21st edition of the Standard Methods for the Examination of Water and Wastewater as published by APHA, AWWA, and WEF. If the Threshold Odor Number (TON) is equal to or greater than 1, then the Contractor shall perform all additional work as needed to achieve the required TON. Water used for testing and disinfection procedures shall be disposed of as required by applicable regulations.

In any case, the Contractor shall be responsible for all costs, beyond initial District sampling and testing, incurred to obtain acceptable Water Quality test results. Additional work may include, but not limited to, draining, cleaning, filling, and retesting the tank due to failure of the initial Water Quality Testing.

4.1 VERIFICATION COATING SYSTEM

Inspection and testing:

- Obtain approval of District Engineer or his designated representative for all surface preparation prior to any painting.
- Obtain approval of District Engineer or his designated representative for each coat prior to applying subsequent coats.
- Repair and recoat all runs, overspray, roughness, or any other signs of improper application in accordance with manufacturer's instructions and as approved by the District Engineer or his designated representative.
- Measurement of the coating thicknesses shall be by an Elcometer or Mikrotest thickness gauge. The completed coating will be inspected for pinholes and holidays with a Tinker and Razor or other low-voltage (under 100 V.) holiday detector. Repair and recoat areas containing pinholes, holidays, or thin spots.
- Leave all staging up until the District Engineer or his designated representative has inspected and given approval of the coatings. Staging removed prior to coating approval shall be replaced.
- All phases of the work shall be available to observation by a representative of the coating manufacturer. The requirements for inspection and testing specified by ref a (sec 5.1) shall be followed.

First Anniversary Inspection:

- The inside and outside surfaces of the tank shall be inspected approximately one year after coating work has been completed.
- All necessary repairs will be made at the contractor's expense.