P. O. Box 371
Sonoma, CA 95476
Toll Free: 877.274.2422
www.CSIServices.biz

Providing Quality Technical Services to the Coating Industry

August 12, 2015

Via E-mail:* *nick@pjhm.com

Jefferson School District
c/o Nick Morrissey, PJHM
1219 Whispering Wind Drive
Tracy, CA 95377

Subject: **Proposal 1635C – Specialty Inspection Services**

Re: **New 39' Dia. X 20' Tall Water Storage Tank**
Jefferson School District, Tracy, CA

Dear Nick:

It was good to talk with you today about how CSI Services, Inc. (CSI) can provide the coating inspection to support the quality assurance aspects of the above referenced project. Please find attached our revised proposal. We understand that the shop work has already been completed and that the project requires prevailing wage payments.

We understand that the contractor is to pay for a portion of the inspection costs. I suggest that these charges be calculated once complete and back-charged. This will allow the owner to be in control of all aspects of the inspections. Otherwise, the only change to this proposal is the total estimated fee. This NTE fee is now based on the known schedule.

We look forward to working with you and the school district. Thank you for this opportunity and should you have any questions or comments, I can be reached through e-mail at psweeney@CSIServices.biz or cell 661-478-8900.

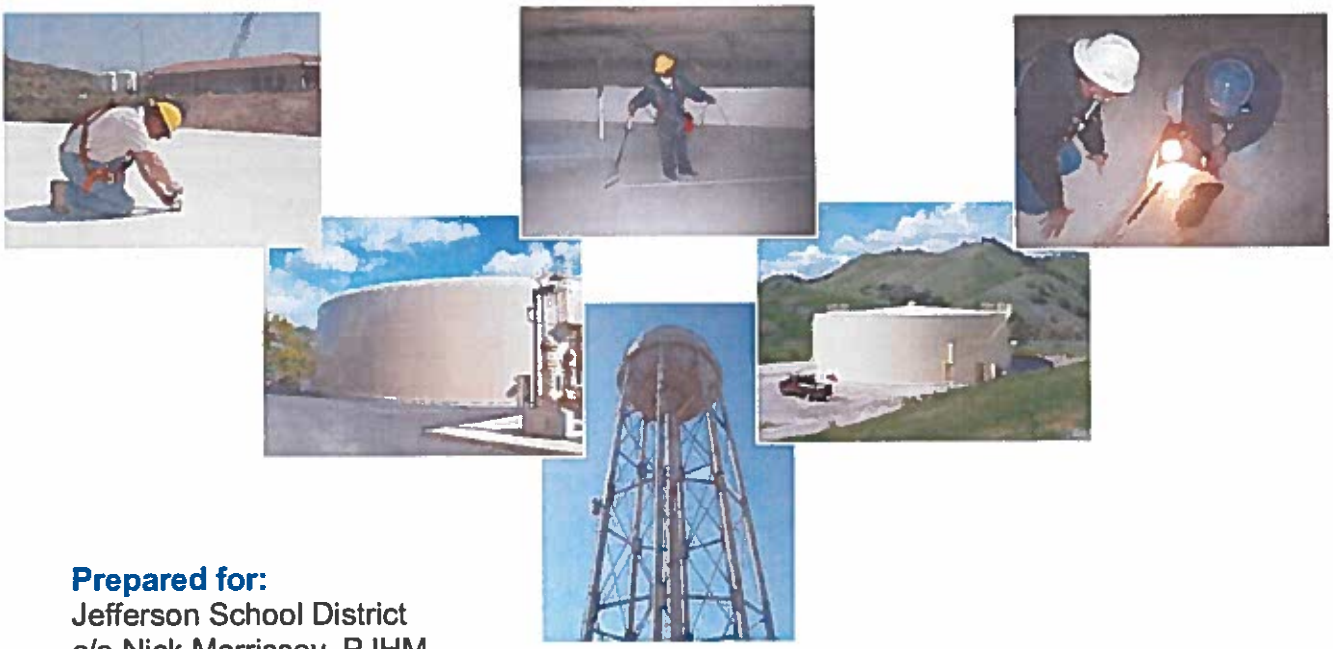
Sincerely,
CSI Services, Inc.

Patrick Sweeney
Project Manager

CSI Services, Inc.
P. O. Box 801357 Santa Clarita, CA 91380
877.274.2422

Proposal 1639C
Coating Inspection Services

New 39' Dia. X 20' Tall Welded Steel Water Storage Tank
Jefferson School District, Tracy, CA



Prepared for:
Jefferson School District
c/o Nick Morrissey, PJHM
1219 Whispering Wind Drive
Tracy, CA 95377

Prepared by:
CSI Services, Inc.

Patrick Sweeney
Project Manager

August 7, 2015

Table of Contents

Discussion..... 1

Qualifications of Firm..... 1

Qualifications of Project Team..... 2

Scope of Services..... 3

Fee Schedule..... 6

Attachments

Sweeney Resume
SSPC-QP5 Certificate
Company Brochures

Discussion

It is understood that the goal of this project is to provide coating inspection services to support the construction of a New 39' Dia. X 20' Tall Water Storage Tank for Jefferson School District, Tracy, CA. CSI Services, Inc. (CSI) is excited about this opportunity to work with the District. Further, we are confident that our experience and qualifications working on similar projects will allow us to meet your high standard of quality.

Our team has extensive experience with projects of this type, particularly with respect to large capacity steel water storage tanks. We have completed over 500 projects with this same scope. We feel that this experience will be critical to assuring the quality provided by the contractor. This project requires a team that not only has extensive water tank inspection experience, but also has the ability to take the quality of inspection to a 100 percent customer satisfaction level. Our team strives to continually meet this internal benchmark.

Qualifications of Firm

CSI Services, Inc. is a corporation formed in 2004 that provides services as a consulting engineering firm specializing in protective coatings and linings with specific expertise in storage tank projects. The management team, with more than 50 years of combined coating expertise is committed to the timely and ethical delivery of its services.

CSI provides comprehensive coating consulting services including failure analysis, laboratory testing, expert witness, maintenance and corrosion surveys (dry and underwater), coating system evaluations, technical specifications, and in-process inspection of surface preparation and coating/lining applications. CSI is a completely independent firm enabling the delivery of totally unbiased services to owners and all members of the coating and corrosion prevention community.

The firm is financially strong with no conditions such as disputes or litigation that would impede our ability to complete the project. CSI has more than 25 coating inspectors with the vast majority having NACE and/or SSPC Coating Inspection certifications. This staffing allows us to place specifically highly qualified inspectors onto unique projects, such as this assignment. The foundation for CSI's genesis was the desire of its many employees to maintain the detailed, quality oriented service that is often difficult to achieve at some of the very large inspection firms. We realize that it is the quality of our personnel and their desire to support owners that is important to our success. In order for us to meet our standards of quality, we realize that it is important for our inspectors to look at their job at CSI as a career, not a temporary project. It has been our experience that this employee outlook results in a better service product. After all, we realize that it is your project, but it is our reputation.

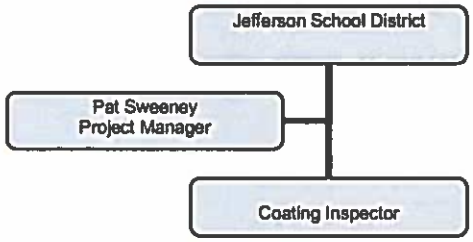
Further, CSI is proud of its certification as an SSPC QP-5 Coating Inspection Firm. Much like an ISO 9001 certification, the QP-5 certification recognizes firms for their high level of technical strength, internal quality control program, financial stability, safety record, and ability to provide

quality services over a long period of time. The QP-5 has been adopted as a requirement by many large owners such as the U.S Department of Defense, Army Corp of Engineers, and many state governments as a means of prequalifying firms for inspection on their coating projects. We offer this QP-5 recognition as a third-party means of verifying the quality and abilities of our firm. This program requires our staff to continually seek to improve on the services that we deliver. As an example, we recently implemented an automated means of assuring the timely electronic delivery of our inspection reports to our clients.

Safety is always our top priority. In addition to the safety requirements of our SSPC-QP5 certification, we are also monitored by the ISNetwork, an independent safety compliance program that continually monitors the implementation of our extensive safety programs. This program is a requirement of many large owners, notably those with projects in refineries and underground. We are routinely audited by both SSPC and ISNetwork in the office and field.

Qualifications of Project Team

It is important for a quality inspection team to understand the various hold-points and testing procedures, but the mark of good inspection is its ability to foresee problems and remedy them before concerns become reality. This is where the value of our proposed team can provide superior inspection services to this project with a critical path. An organizational chart of our proposed team follows:



CSI will complete this assignment using a team approach. Mr. Patrick Sweeney will act as Project Manager throughout the entire contract. His personal inspection experience, as well as his history of managing over *500 water storage tank inspection projects* will provide unsurpassed support and organization to not only the CSI inspector, but also to the project. Mr. Sweeney is certified by *both* NACE International and SSPC as a Level III Coating Inspector. He is an SSPC Certified Protective Coating Specialist with 25 years of coating inspection experience. He also manages projects and completes corrosion surveys, performs failure analysis, and develops specifications. Additionally, Mr. Sweeney's expertise with inspection has been recognized by both NACE and SSPC where he is on different technical committees and is an instructor for *both* organization's coating inspector training and certification programs. He is the Chairman of the AWWA CalNev Tanks Reservoirs and Structures Maintenance Committee. These activities allow Mr. Sweeney to act within the hub for ever-changing technological advances and standards. Depending on the start-up of the project, CSI will assign one of its certified coating inspectors to the project. As our many clients can attest, we take great measures to assure that owners receive a superior product. This allows us to take great pride in the service that we provide our clients. There is no greater means of measuring the qualification of an inspector, project manager, or team than through its list of successfully completed projects.

Scope of Services

Coating Inspection

CSI will provide quality assurance inspection services during the lining work on the project. CSI will provide technical as-needed consulting assistance and qualified fully trained and equipped inspectors throughout the progress of the work up to and including final acceptance. CSI will provide an independent, professional, and thorough inspection. CSI will not take any responsibility for the safety of others. The CSI inspectors will verify that the Contractor meets all of the requirements of the specification.

As noted above, CSI has found that it can provide its clients the most versatile and technically competent quality assurance program through a team approach. This team of engineers, inspectors, and administrative support personnel allow us to provide an up-to-date, competent, and efficient service product. The duty of this team approach is segmented into two tasks, which frequently overlap. Either the field inspector or the support personnel will complete the various tasks that may be required on this project. These two general segments of the team have been detailed below under two categories: Project Support Activities and Direct Field Inspection Activities.

Project Support Activities

1. CSI will participate in project start-up meetings, weekly job meetings, and any special interest meetings as required to discuss procedures, progress, problems, or outstanding issues. CSI will complete agendas, notes, and minutes for all meetings and distribute accordingly, if requested.

2. CSI will maintain all applicable correspondence, reports, job conferences, submissions, reproductions, and original contract documents including all addenda, change orders, supplemental drawings, records of materials and equipment deliveries and use, manpower, and all other project-related documents.

3. CSI will utilize a project specific daily inspection report for use by the inspector. This daily report will include work in progress, areas accepted, and items requiring repair/rework. CSI will assist in the determination of the quantities and/or percent of work completed for each item for contractor progress payments.

4. CSI staff will provide any support to the project required to assure that all technical issues and concerns are properly corrected and/or addressed. All claims or change order issues will be thoroughly reviewed.

Direct Field Inspection Activities

1. The CSI inspector will ensure that the requirements of the Contract Specifications and manufacturer's technical data sheets for the various materials are strictly followed. PDCA P2-04, SSPC, NACE, and ASTM D3276 standard practices will be used a guideline for proper procedures, where not called out in the specification or manufacturer's written PDS's.

2. The CSI inspector will ensure that the requirements of the Contract Specifications and manufacturer's technical data sheets for the various materials are strictly followed. ASTM D3276 will be used a guideline for proper procedures.

3. Verifications of the contractor's compliance with the specifications will be accomplished by performing the following tasks as necessary, with the appropriate calibrated instruments for each:

   a. Condition Of Surfaces Prior To Preparation – The CSI inspector will inspect the surfaces to be prepared to assure that grease and oil have been removed, and sharp edges are removed as specified. NACE Standard SP0178 will be used as acceptance criteria where areas are of a concern.

   b. Compressed Air Cleanliness – The CSI inspector will check the air quality when production includes abrasive blast cleaning or substrate blow-down procedures. This will be accomplished in accordance ASTM D4285.

   c. Ambient Conditions – The CSI inspector will monitor ambient conditions in accordance with ASTM E337 to assure that final blast cleaning and coating application operations are not completed outside the specified requirements.

   d. Surface Preparation – The CSI inspector will examine the abrasive and equipment used for surface preparation for adequacy to do the work, as specified. Equipment pressures will be monitored. The inspector will verify proper storage and size of abrasives, and that the proper degree of cleaning and surface profile or scarification is achieved.

   e. Coating Preparation and Mixing – The CSI inspector will observe the mixing of coatings to assure that all components are added and proportioned correctly and that any required induction times are maintained. The inspector will verify that any materials used are approved and that they are not used when the pot or shelf lives have been exceeded.

   f. Coating Application – The CSI inspector will examine the application equipment for cleanliness and adequacy to do the work. The inspector will observe application techniques to assure proper coverage without detrimental runs, pinholes, or other visually evident deficiencies. The inspector will make spot checks of the wet film thickness in accordance with ASTM D4414 so that adjustments to the amount of material being applied can be made at the time of application to minimize the amount of rework after the coating has dried.

   g. Dry Film Thickness – The CSI inspector will measure the dry film thickness of each coat to assure that it complies with the specification requirements and manufacturers' instructions. Film thickness will be monitored using a Type II film gage in accordance with ASTM D7091, SSPC-PA2, or as required (i.e. every 100 SqFt).

h. Holiday Detection – CSI will review holiday detection equipment verify 100 percent lining holiday detection in accordance with NACE International's "Recommended Practice for Discontinuity (Holiday) Testing of Protective Coatings," (SP0188-99), AWWA D102, and the specified requirements.

i. Cure Evaluation – The CSI inspector will evaluate the final cure of the applied lining in accordance with the Manufacturer's recommended procedures, and or ASTM D5402, as required.

j. Final Inspection – The CSI inspector will perform a final inspection to evaluate the Contractor's final product. This will verify that the final visual appearance (SSPC PA1), dry film thickness readings, holiday detection, cure testing, and so forth meet the project requirements.

In-Process Inspection Documentation

1. The inspectors will use a daily journal, daily reports, and in-process punch list to clearly document and flow-chart the coating operations and occurrences to verify compliance with Contract documents. At a minimum, the verifications noted above will be recorded. Daily inspection reports will be digital and may include captioned photographs, where applicable. Reports can be sent electronically throughout the project.

Fee Schedule

CSI Services, Inc. (CSI) proposes to provide fulltime coating inspection services using certified inspectors on a time and materials basis in accordance with our standard terms and conditions. We understand that this project requires prevailing wage payments. Our fees to complete the above Scope of Services follow:

Rates
Project Manager (office)..... No Charge

Coating Inspector
Straight Time (half day minimum)..... $ 97.50/hour
Overtime (1.5x OT)..... $ 121.75/hour

Expenses
Local automobile mileage will be invoiced, and this fee will not exceed $60.00 per inspection day.

Estimated Cost of Inspection

Based on the known work schedule, we project the following cost of inspection for all field coating work. On this basis, CSI can provide the above scope of services on a time and materials basis for a fee that should not exceed:

Interior Lining Work - 3 weeks (120 hours).....	$12,600.00
Exterior Paint Work - 8 days (64 hours).....	$ 6,720.00
Total Projected Not to Exceed (NTE) Fee...	**$19,320.00**

The actual cost of CSI's services will be based on the actual production rates of the contractor. CSI will only invoice for the actual time worked, and we will not exceed this fee without authorization.

Patrick Sweeney, PCS

Curricular Vitae

psweeney@CSIServices.biz

Patrick Sweeney is General Manager of CSI Services, Inc. (CSI), a consulting engineering firm with specific expertise in protective coatings and linings. Serving a host of industries around the country – from water and wastewater to petrochemical, power, and transportation – CSI's long-standing commitment to efficient, cost-effective, quality service has positioned the company as one of the most respected and sought-after firms in the field.

The company's comprehensive approach to its independent, third-party services is tailored specifically to each client's needs, based on the industry and specifications. CSI routinely provides facility surveys, specification development, bid phase support, in-process construction inspection, failure analysis, expert witness, and underwater inspections. CSI is an SSPC QP5 Certified Coating and Lining Inspection Firm.

Education

1990 – Bachelor of Science Degree, California State University at Los Angeles

1994 – NACE International Coatings Inspector Training Program

1995 – SSPC: The Society of Protective Coatings C-3 Course "Supervisor for Deleading of Industrial Structures"

2000 – SSPC: The Society of Protective Coatings C-2 Course "Specifying and Managing Protective Coatings Projects"

2001 – Federal Highway Administration/Federal Highway Institute Course No. 13709 "Bridge Coatings Inspection"

2003 – SSPC: The Society of Protective Coatings C-1 Course "Fundamentals of Coating on Industrial Structures."

2004 – SSPC: The Society of Protective Coatings C-7 Course "Fundamentals of Dry Abrasive Blast Cleaning."

2008 – SSPC: The Society of Protective Coatings Protective Coating Inspector Program

Numerous courses and seminars covering: Corrosion, Coatings, Inspection, and Safety.

Association Memberships

American Concrete Institute

American Water Works Association – California/Nevada Section
- Chairman - Tank, Reservoirs, and Structures Maintenance Committee
- Vice-Chairman - Corrosion Control Committee
- Member - Engineering and Construction Committee

California Rural Water Association/ California Water Environment Association

International Code Council (formerly International Conference of Building Officials)

NACE International (formerly National Association of Corrosion Engineers)
- Past Ventura/Channel Islands Section Trustee

SSPC: The Society for Protective Coatings (formerly Steel Structures Painting Council)
- Chairman - Southern California/Southern Nevada Chapter (2003 to present)
- Chairman - Individual Certification Task Group (ICTG)

Certifications

SSPC – Certified Protective Coatings Specialist Certificate #887-792-1267

NACE International –Certified Coatings Inspector Certificate #4324

SSPC – Certified Protective Coatings Inspector Level 3 #21886

Instructor - NACE International - Coating Inspector Program (CIP)

Instructor - SSPC's C-1 "Fundamentals of Coating on Industrial Structures"

Instructor - SSPC's C-2 "Specifying and Managing Protective Coatings Projects"

Instructor - SSPC's Protective Coating Inspector (PCI) Program

SSPC-C-3 Certified Supervisor for Deleading of Industrial Structures

ICBO/ICC Certified Spray Applied Fireproofing Special Inspector (41410052165)

Federal Highway Administration/Federal Highway Institute - Certified Instructor "Bridge Coatings Inspection" (Course No. 13709).

Certified Linabond Structure and Pipeline Copolymer Inspector

Certified ACI Concrete Field Technician

Certified Ameron T-Lock Welder and Inspector

Certified PADI Scuba Diver (8912237760)

Professional Experience

Beginning in 1990, Mr. Sweeney has completed projects in virtually every type of industry. A partial listing of professional accomplishments follows:

Golden Gate Bridge Highway and Transportation District Project Manager for both the shop and field coating inspection for the Bridge's $350,000,000 Seismic Retrofit and Repainting of the North Approach Viaduct Project. The 3-year project involved a zinc-rich primer/acrylic coating system.

Castaic Lake Water Agency Inspector and/or Project Manager during the construction or maintenance of over 50 different steel water storage tank projects. These assignments included the development of a tank maintenance plan following both dry and underwater surveys (over 100 dive inspections), work prioritization, budgeting, specification development, and in-process inspection services. Tank capacities have ranged from 100,000 gallons to 4MG and involved various epoxy, coal enamel, and urethane systems. Projects have also included various 102" pipeline lining evaluation and inspection projects. The pipeline projects involved cement mortar and polyurea lining systems.

Disneyland Themepark Inspector and/or Project Manager during the corrosion mitigation and maintenance of various attractions within the park. Projects included work on Splash Mountain, Matterhorn, CA Screaming, Fantasmic Experience, and Pirates of the Caribbean. Systems involved epoxies, urethanes, acrylics, and moisture-cured urethanes.

Los Angeles County Sanitation Districts Project Manager for 3-year assignment at the Joint Water Pollution Control Plant's Secondary Treatment Facilities, Stages 1 and 2 Project. This assignment involved the resurfacing and relining of the interior of numerous concrete reactor clarifiers. This project involved the application of 100 percent solids polyurethane products.

Since 1991 Mr. Sweeney has tested or supervised the testing for the installation certification of over 3,000,000 square feet of polyvinyl chloride (PVC) linings and 250,000 linear feet of PVC weld strip to various structures, manholes, and outfalls. Outfalls have ranged from 48" diameter RCP to 12 foot reinforced concrete tunnels.

Southern California Alliance of Publicly Owned Treatment Works (SCAP) Project Manager and Field Technician during the $200,000 two year (2001-2002) coating and lining evaluation program for SCAP, which involved testing low VOC materials on both concrete and steel substrates in atmospheric, gas vapor, and immersion environments in both field and laboratory conditions. SCAP is comprised of an alliance of 35 water and wastewater facility owners throughout Southern California. Systems included virtually every type of coating system typically used in water and wastewater environments.

San Diego Padre Baseball Stadium Technician and Project Manager for coatings failure analysis of the steel superstructure of the new San Diego Padre Baseball Stadium (PETCO Park). The project involved the analysis of failed coatings, recommendations for maintenance repair activities, and inspection of the recoating.

Eastern Municipal Water District Inspector and/or Project Manager during the construction or maintenance of 60 steel water storage tanks. Tank capacities ranged from 500,000 gallons to 8.9 MG. Systems included coal-tar enamel, inorganic zinc rich, epoxies, and urethanes.

U.S. Department of Defense Technician and Project Manager during the corrosion and lining evaluations for the Title 23 recertification of over 125 steel, concrete, and plastic storage tanks located throughout numerous military installations.

Valencia Water Company Inspector and/or Project Manager during the construction or maintenance of 40 different steel and concrete water storage tank projects. These assignments included the development of a tank maintenance plan following both dry and underwater surveys (over 50 dive inspections), work prioritization, budgeting, specification development, and in-process inspection services. Tank capacities have ranged from 1MG to 5MG, and systems included coal-tar enamel, zinc-rich, epoxies, and urethanes.

Southern California Edison Project manager during the evaluation and inspection of the repainting of multiple steel penstocks throughout the environmentally sensitive and complex Big Creek Hydroelectric Project, which involved numerous hydroelectric powerhouse and vertical penstocks.

National Aeronautical Space Administration (NASA) Inspector and Project Manager during the coating of three large portable purge units for the space shuttle program. The coating installed was an inorganic zinc-rich, epoxy, and urethane system.

U.S Navy, San Diego, CA Technician and Project Manager for the 2002 coatings failure analysis and relining of potable water storage tanks on the USS Dubuque, USS Lake Champlain, US Bendfold, and USS John Paul Jones. Mr. Sweeney also acted as Project Manager during the 1998 – 2001 Navy Preservation Team Maintenance Painting Program for various aircraft carriers, ships, submarines, and other vessels.

Grant County Public Utility District No. 2 Coating Technician and Project Manager during the coating evaluation of the Priest Rapids and Wanapum hydroelectric dams on the Columbia River, Washington. The evaluation included over 2000 components, which became the centerpiece for the maintenance of all facility areas from draft tubs to spillway gates.

City of Yuma, AZ Project Manager during the evaluation, coating testing, and development of a maintenance recoating specification for the City's historically landmarked Old Yuma City Bridge.

US Department of Energy Project Manger during the maintenance of five different steel storage tanks located at the Nevada Test Site (Yucca Mountain & Areas 12, 24, 15, and 18). Mercury, NV. The project involved the corrosion evaluation, professional certification, and recoating of each tank.

City of San Diego Project Manager for the lead-abatement and repainting of the First Ave Bridge Over Maple Canyon, a historic span superstructure. The project was named Structure Project of the Year by the California Transportation Foundation and SSPC: The Society of Protective Coatings.

California National Guard Project Manger during the evaluation and maintenance painting of more than twenty armory facilities located throughout the state.

Aircraft International Service Group Inspector and Project Manager during the maintenance evaluation of 32 different large capacity fuel storage tanks located at Honolulu International Airport. These assignments included the development of a tank maintenance plan and specifications.

NASA/Jet Propulsion Laboratory Project Manager for the maintenance of seven different steel water storage tanks located at the Deep Space Satellite Facility, Goldstone. This project included both dry and underwater surveys, work prioritization, budgeting, specification development, and in-process inspection services.

U.S. Navy, NAVFAC - Project Manager for the evaluation of the newly developed splash zone coatings (SZC) applied to sheet piling at Naval Station, San Diego, CA and Naval Air Station, Pensacola, FL. The assignment surveyed SZC's over a 3-year period to determine the use of polysulfide modified epoxies throughout the Navy's worldwide infrastructure.

Mr. Sweeney has completed numerous assignments involving coating failure analysis or expert witness services. A partial listing follows:

City and County of Honolulu - Investigation of the failed lining of the Ko Olina Interceptor and the preparation of recommendations for the repair of severely corroded surfaces and the rehabilitation of the failed liner.

Ameron Linings vs City of Phoenix - $12 million litigation involved the investigation of the failed lining in over 10,000 LF of the Salt River Outfall wastewater pipeline.

PCL vs City of San Diego – Litigation involving the investigation of the failed lining in the Rose Canyon Outfall wastewater pipeline owned and operated by the City of San Diego, CA.

Port of San Diego - Provided investigation of failed coating on Broadway Pier Ship Terminal.

Tilden-Coil vs Weststar - Provided an investigation of the failed coating and expert opinion of the coatings failure on the Biosolids Composting Facility, Inland Empire Utilities Agency.

Orange County Sanitation District - Provided an investigation of the failed lining located within the IDB-1 Headworks Process Structure located within Treatment Plant No. 2

Southern Nevada Water Authority - Expert opinion on the quality and conditions of polyvinyl chloride (PVC) welds and liner plate installed in the sodium hypochlorite and brine tanks located at Authority's River Mountain Water treatment Facility.

Metro Transit Authority - Provided expert opinion on the failed paint on the Exposition Subway Line in Los Angeles CA. Provided expert opinion on the failed paint on the various facilities on the Goldline segment of the MTA system.

Trona Train Lines - Project Manager during the investigation of the failed coatings on over 500 railcars. This evaluation was used as the basis for the successful mediation.

San Diego Zoo - Provided an investigation of the failed coating on different superstructures located at both the Zoo and Wild Animal Park.

U.S Navy, FISC Manchester, WA - Provided an investigation of the failed 100 percent solids lining within a large capacity concrete underground fuel storage tank.

Other Activities and Personal Information

- Very happily married to Rebecca with two sons, Cameron and Wyatt
- Avid Mountain Biker and Hiker

SSPC
The Society For Protective Coatings

CSI Services, Inc.

of

Santa Clarita, CA

has met or exceeded the requirements set forth in the
SSPC Coating and Lining Inspection Company Certification

SSPC CERTIFIED COMPANY
SSPC
QP5

SSPC-QP 5

President, SSPC

March 31, 2015 – March 31, 2016

Validation Period

Owners are advised to contact SSPC at 412-281-2331 ext. 2235 or ext. 2209 to verify authenticity of certification.

It is the CSI team's experience, industry knowledge and upmost professionalism that position it as a top choice regionally and nationally for all-encompassing coating consultation.

Project Design

Many clients who have experienced coating failures now recognize the importance of coating expertise. They realize that understanding the coatings used to protect their capital investment is often the difference between long-term success and premature failure. CSI's involvement in public committees and its ability to act as a hub for industry knowledge assures that our design considerations include the most advanced technologies available.

The CSI staff is in the business of making informed and accurate recommendations that allow you to obtain the maximum life from your coating system. It is the company's philosophy to take the guess work out of coating maintenance and help you save money, operate safely and provide quality products to your customers.

The diverse experience of the CSI team can also provide support services for both new and maintenance projects through facility surveys. Based on industry standards and CSI's years of experience, technicians and engineers follow specific procedures and methods to determine the condition of your coating and structure.

CSI determines the reason for your coating failure by conducting a detailed and thorough on-site investigation and methodical assessment.

Specification Development and Bid Support

Once a plan of action is decided, CSI develops comprehensive technical specifications to assure that you receive the most quality-conscious craftsmanship in the most cost-effective manner. This third-party, independent approach extends to providing unbiased, experienced support throughout your repair or repainting project. During the construction phase of your project, the quality of your contracted work can be verified using CSI's in-process inspection services. This will ensure that all technical requirements are properly met and quality and regulatory standards are accomplished.

continued on back

CSI Services, Inc., P.O. Box 801357, Santa Clarita, CA 91380-2316
P: 877-274-2422 / F: 661-775-7628
E: sales@csiservices.biz
www.csiservices.biz

Investigative Evaluations

When the quality of your coating application fails, CSI's experienced staff is well trained in helping to resolve any questions or disputes regarding the reason for the failure. A CSI professional will conduct an on-site comprehensive investigation and systematic evaluation of the structure, addressing questions or concerns about the coating. CSI has the ability to evaluate virtually any structure by utilizing uniquely secured rigging, extreme confined entry procedures, or through its in-house Underwater Inspection Division. Clients are provided detailed reports, outlining CSI's findings and data, laboratory analysis, and conclusions and recommendations for corrective measures, such as repairs or repainting.

CSI technicians and engineers utilize sophisticated equipment and advanced techniques to verify the condition of your coating system.

Legal Support and Expert Witness

If legal action is required to support claims of premature coating failures or questionable quality issues, CSI's professional staff can provide answers to the fundamental questions of: What is wrong?; Why is it wrong?; How should it be fixed?; and Who is responsible? The principal evidence is provided within our professional reports that contain documented discoveries, findings, conclusions and recommendations for remedial work. This proficient team has presented depositions and courtroom testimony for numerous clients who have had coatings problems on such structures as bridges, ships, railcars, tanks, amusement rides, off-shore platforms, towers, structural steel in chemical and manufacturing plants, high-rises, condominiums, residential housing, storage tanks, swimming pools and nuclear facilities.

CSI's In-process Coating Inspection team boasts a multi-faceted and talented staff that provides a one-stop-shop for clients' comprehensive third-party requirements.

For example, when your structure is about to have a coating applied you can rely on a certified CSI inspector to monitor the painting or lining project from start to successful completion. The highly trained CSI inspector ensures that all technical requirements are properly met and quality and regulatory standards are achieved.

By conducting an independent, professional and systematic inspection with advanced equipment and instruments, CSI inspectors can unequivocally provide you with unbiased project management and assurance of quality. Detailed electronic documents of the inspector's daily reports are prepared, including an in-process punch list, photographs and verification results.

CSI's expert staff provides unbiased inspections during the entire duration of a painting or lining project.

Our expert team's accomplishments include work with inorganic zincs, epoxies, coal-tar enamels, coal-tar cut-backs, vinyls, urethanes, alkyds, acrylics, vinyl esters, PVC linings, and numerous other generic types of coatings that include 100 percent solids materials. CSI's background encompasses work with virtually all surface-preparation techniques and airless, conventional, plural component, and other application systems in both shop and field settings.

Further, CSI has extensive experience with coating-inspection instrumentation. These state-of-the-art devices include pull-off adhesion testers, ultrasonic gages, soluble salt detectors, moisture meters, holiday detectors, hardness gages, and pH measuring units. The team is well-versed in and adheres to numerous standards and practices established by industry authorities, such as NACE International (NACE), SSPC: The Society for Protective Coatings, American Petroleum Institute (API), and the American Society for Testing and Materials (ASTM). The quality of CSI's work has been additionally recognized through its certification by SSPC as a QP5 Coating and Lining Inspection Company.

CSI Services, Inc., P.O. Box 801357, Santa Clarita, CA 91380-2316
P: 877-274-2422 / F: 661-775-7628
E: sales@csiservices.biz
www.csiservices.biz

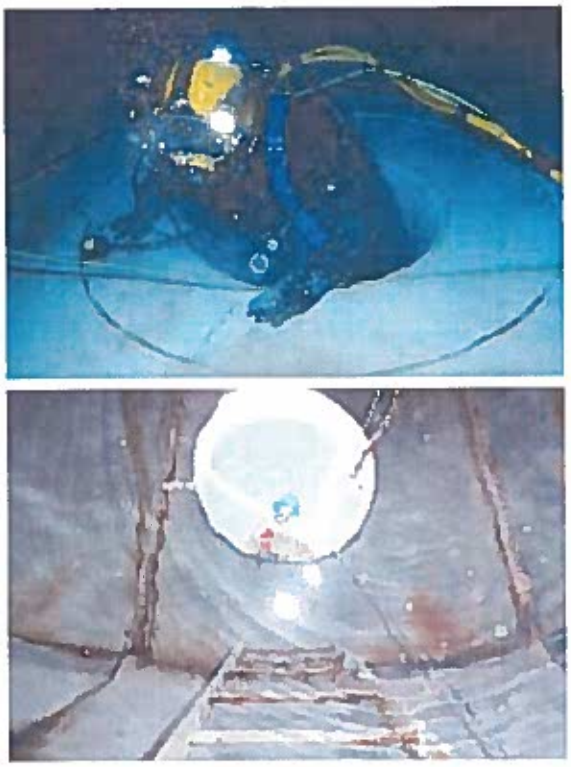
From the roof to the floor, CSI's diving team of greatly skilled inspectors and technicians utilizes sophisticated equipment to scrutinize and evaluate the coating on any type of water reservoir.

The divers employ digital audio/video recording systems to document every square foot of your tank's coating without having it drained or taken out of service.

Based on industry standards and CSI's years of experience, diving technicians follow specific processes and methods in determining the condition of your coating and structure, such as those established by the American Water Works Association (AWWA) and the National Fire Protection Association (NFPA). CSI's inspection findings result in a thorough report that includes recommendations for repair and improvements, designed to minimize your costs, reduce or eliminate the downtime of your reservoir, and ensure the maximum life of your water tank.

AWWA and NFPA recommend that all tanks be inspected every 3 to 5 years. Coating systems may last in excess of 35 years if properly maintained. CSI continually meets this standard for its clients — a clear reason why it is one of the most reputable and recognized companies in the industry. The following services are provided by CSI:

- **Evaluations:** CSI recognizes that your tank's coating system is its first, and often only, line of defense against corrosion. This is where our expertise gives added value. CSI helps protect your reservoir from failing by providing a meticulous inspection and evaluating the coating and levels of corrosion so that you can implement an efficient tank-maintenance plan. CSI's evaluation also extends to reviewing applicable safety, sanitary, vandalism and seismic concerns.



CSI's team of divers and engineers use advanced technology to inspect your reservoir and make repairs without having it drained.

continued on back

CSI Services, Inc., P.O. Box 801357, Santa Clarita, CA 91380-2316
P: 877-274-2422 / F: 661-775-7628
E: sales@csiservices.biz
www.csiservices.biz

- **Repairs:** CSI divers are equipped and highly skilled at performing underwater repairs to your reservoir. Utilizing a sophisticated scope, divers can efficiently and accurately correct any coating defect with power equipment. Repairs are done using underwater curing, NSF-certified materials that can extend the life of existing systems by more than 50 percent.
- **Cleaning:** Over time, sediment settles inside reservoirs and builds up on the floor, contributing to poor water quality. CSI's team is experienced at expediting a thorough cleaning with satisfying results, meeting AWWA and NFPA guidelines.
- **Tank Maintenance Plan:** CSI's expertise includes not only evaluating individual tanks, but also developing a tank-maintenance plan where all tanks in a system are viewed as a whole. This ultimately results in life-cycle cost savings.

CSI helps protect your reservoir from failing by evaluating the coating and levels of corrosion so that you can employ an effective tank-maintenance plan.

- **Seismic Baseline Survey:** Preparation and planning are the foundation for a successful emergency response to any disaster. CSI provides a pre-event baseline survey and response handbook to assist emergency responders with ascertaining the condition of a water storage tank after a seismic or other event. Should your structure become damaged during an earthquake, this document becomes vital in dealing with the Federal Emergency Management Agency (FEMA) and state-emergency services.

Wastewater systems are built to last generations, if properly protected.

To ensure the longevity of these intricate structures of concrete, pipes and tunnels, they are often lined with a polyvinyl chloride (PVC) resin-based sheet material that acts as a barrier against extremely hostile environments. However, a PVC liner system — such as T-Lock® or Arrow-Lock® — will only protect the underlying substrate if the liner is applied correctly, is free of pinholes, and has properly installed weld seams.

CSI provides you with just that — a quality-assurance verification that your PVC liner is correctly installed or repaired. Wastewater system owners have come to realize time and again the value of identifying liner installation problems before their system is placed into service. It is a small cost toward a long-term investment.

The veteran CSI team has an excellent reputation for providing unbiased professional inspection services. We verify that your liner system is properly installed — from its initial anchoring through final inspection testing. For example, CSI utilizes high-voltage holiday detection and employs weld probing and pull testing to ensure the strength of the welds and the reliability of the entire PVC-lining system.

CSI's weld quality-assurance program provides a continuous joint that is equal in corrosion resistance and impermeability as the liner plate. This guarantees the quality of the welds so that they will not lift from the liner as it encounters the various factors of its future service environment. Issues, such as contraction due to temperature variance, debris friction delivered by passing current, or soil settlement, can all play a part in dislodging a portion of a defective weld from the liner. Fortunately, a simple inspection from CSI can identify whether your new system requires repair before it is put into service.

Skilled inspectors scrutinize PVC liner welds and seams to determine proper installation.

CSI can identify defective welds on wastewater liners before the system is put into service.

CSI Services, Inc., P.O. Box 801357, Santa Clarita, CA 91380-2316
P: 877-274-2422 / F: 661-775-7628
E: sales@csiservices.biz
www.csiservices.biz