FW: 9850 Yard Piping Improvements Phase 2 Project Taber, Toni <toni.taber@sanjoseca.gov> Fri 4/7/2023 6:55 PM To: Agendadesk < Agendadesk@sanjoseca.gov> 1 attachments (13 MB) 4.7.23 Letter to San Jose City Council.pdf; From: City Clerk <city.clerk@sanjoseca.gov> Sent: Friday, April 7, 2023 1:43 PM To: Taber, Toni <toni.taber@sanjoseca.gov> Subject: FW: 9850 Yard Piping Improvements Phase 2 Project From: Sheila McNeill Sent: Friday, April 7, 2023 12:49 PM To: The Office of Mayor Matt Mahan < mayor@sanjoseca.gov >; District1 < district1@sanjoseca.gov >; District2 <<u>District2@sanjoseca.gov</u>>; District3 <<u>district3@sanjoseca.gov</u>>; District4 <<u>District4@sanjoseca.gov</u>>; District5 < <u>District5@sanjoseca.gov</u>; District 6 < <u>district6@sanjoseca.gov</u>; District7 < <u>District7@sanjoseca.gov</u>; District8 <a href="mailto:district8@sanjoseca.gov; District10@sanjoseca.gov> Cc: Profeit, Lauren < lauren.profeit@sanjoseca.gov >; Cano, Matt < Matt.Cano@sanjoseca.gov >; CAO Main < cao.main@sanjoseca.gov >; Fisher, Kevin < Kevin. Fisher@sanjoseca.gov >; City Clerk < city.clerk@sanjoseca.gov >; John Busby < Subject: 9850 Yard Piping Improvements Phase 2 Project You don't often get email from Learn why this is important [External Email] Good afternoon – Attached please find correspondence with exhibits from Mr. Busby regarding the above Project. Thank you, Sheila Sheila McNeill, Legal Assistant John W. Busby II, Attorney at Law, P.C.

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April 7, 2023

Via E-Mail

San Jose City Council City of San Jose 200 E. Santa Clara Street San Jose, CA 95113

Re: 9850 Yard Piping Improvements Phase 2 Project

This firm represents Mountain Cascade, Inc. ("MCI"), which was initially determined to be the lowest responsive and responsible bidder for the 9850 Yard Piping Improvements Phase 2 Project (the "Project") for the City of San Jose (the "City"). This letter is being submitted in advance of MCI's presentation at the April 25, 2023 City Council meeting, to present facts and legal analysis contesting the City's decision to revoke its initial Notice of Intent to Award the project to MCI, in favor of Michels Trenchless, Inc. ("Michels"). MCI requests that the City reinstate its original Notice of Intent to award the project to MCI, the lowest responsible and responsive bidder by more than \$1.15 million.

I. EXECUTIVE SUMMARY

After issuing a Notice of Intent to Award Contract to MCI in January 2023, Michels Trenchless, Inc., the second low bidder, submitted a bid protest on the ground that MCI's bid was non-responsive because it did not include subcontractor superintendent resumes, a requirement not found on the City's Bid Document Checklist, but rather buried deep within the technical specifications. Though Michels cited no decisional legal authority, and no argument that the resumes had any impact on the bid process, the City exercised its discretion to sustain the protest and issue a Revised Notice of Intent to award the project to Michels on February 7.

As detailed below, the Revised Notice of Intent conflicts with well-established California law holding that a deviating bid which substantially conforms to a call for bids should be set aside only if "the deviation is capable of facilitating corruption or extravagance, or likely to affect the amount of bids or the response of potential bidders." (*Bay Cities Paving & Grading, Inc. v. City of San Leandro*, 223 Cal. App. 4th 1181, 1188; *Ghilotti Construction Co. v. City of Richmond* (1996) 45 Cal.App.4th 897, 908, citing 47 Ops.Cal.Atty.Gen. 129, 130 (1966).) As courts and the California Attorney General have recognized, deviations from precise technical requirements are to be expected, and must be allowed for: "It is inconceivable that inconsequential departures

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will not appear .. but if the unit, it toto ... generally conforms to the city's needs and will substantially perform the service which the city requires, non-conformity between plan and bid does not exist." (47 Ops.Cal.Atty.Gen. 129, 130–131 (1966); *Konica Bus. Machines U.S.A. Inc. v. Regents of Univ. of California*, 206 Cal.App.3d 449, 454 (1988).) Indeed, the City Municipal Code recognizes that "informalities or minor irregularities in bids or bidding may be waived. (San Jose Municipal Code §27.10.570, "Minor Irregularities.")

Under *Bay Cities*, *Ghilotti*, and the other cases briefed below, the factual circumstance here – the failure to submit subcontractor superintendent resumes which were not listed as a requirement on the Bid Submittal Checklist – plainly constitutes an inconsequential variance, as it did not afford MCI a competitive advantage and had no impact on the amount of the bid. *Indeed, Michels' bid protest did not even allege a competitive advantage or impact on the bid amount, nor did the City's written decision to issue the Revised Notice of Intent.* As such, and keeping in focus the City's primary responsibility to the public interest, the City must accept MCI's low bid. (*Ghilotti, supra*, at 908-909, "It certainly would amount to a disservice to the public if a losing bidder were to be permitted to comb through the bid proposal or license application of the low bidder after the fact, and cancel the low bid on minor technicalities, with the hope of securing acceptance of his, a higher bid. Such construction would be adverse to the best interests of the public and contrary to public policy.")

MCI's position is further supported by the attached expert opinion of Jim Foley, former Deputy Director of Public Works for the City. Mr. Foley opines that the inconsequential nature of the superintendent resumes is evident from the fact that the requirement is buried within 2,700 pages of technical specifications, and is not on the Submittal Checklist, which was expressly designed by the City to ensure bidders are fully aware of all documents required for submitting a successful bid and to eliminate opportunities for bid protests and/or bid subversion. Moreover, it is ill advised to require superintended resumes as part of the bidding requirement, as the superintendents may well change between the time of the bid and the start of the project, which would require a change order and potential increased contract price. For that reason, resumes are typically addressed through the submittal process at the commencement of the work on a project, not in the bidding process. (Exhibit 1, Expert Opinion.)

At most, the omission of resumes by MCI constituted a minor and insubstantial variation, which indisputably had no impact on the bid process. As a result, the City must exercise its discretionary power under the law to revoke the Revised Notice of Intent and award the project to MCI, and in the process save the City and its resident taxpayers over \$1.15 million in project costs.

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II. FACTUAL BACKGROUND

A. Mountain Cascade, Inc.

MCI has had a long successful relationship with the City of San Jose spanning more than 42 years. During the last 15 years, MCI has completed public work improvement projects totaling 51 million dollars over 30 projects within the City's jurisdictional purview for the City Public Works Department, Santa Clara Valley Water District, and numerous developers installing public utility infrastructure. MCI has never failed to complete a contract.

B. The Request for Bids ("RFB") and Subsequent Addenda

MCI, along with numerous other potential bidders, received e-mail notice that the City was advertising an RFB for the project on November 21, 2022. The e-mail notice referenced that the solicitation documents would be stored on Biddingo. Of note, the e-mail also attached the Notice to Contractors, which referenced various matters in connection with submitting a bid, including the bid deadline (at that point December 15, 2022), required bid security, prebid meeting, Labor Code requirements, Project labor Agreement, licensing requirements, Department of Industrial Relations ("DIR") requirements, bidder's experience requirement, and bond and insurance requirements. There was no reference to submitting resumes for subcontractor superintendents. (Exhibit 2, Notice of RFB.)

The plans and specifications for the Project, posted on Biddingo, were split into two sections: (1) Division 00, Procurement and Contracting Requirements; and (2) Technical Specifications. The Procurement and Contracting Requirements section contained the Notice to Contractors, referenced above, along with a document titled "Submittal Checklist for Bidders," which by its title purports to list the documents required to be submitted with the bid. The submittal checklist referenced the Proposal, Non-Collusion Affidavit, Bid Sheet, Bidder's Bond, Statement of Bidder's Experience, and List of Subcontracts. Even under the "List of Subcontractors," the checklist did not reference any requirement for resumes. In fact, resumes are not mentioned anywhere in any of the Procurement and Contracting Requirements. The only reference to subcontractor resumes is buried deep within the 2,700 page Technical Specifications at the following sections:

- 33 01 30.73-8: Carbon Fiber Reinforced Polymer Rehabilitation
- 33 01 30.71-5: Cured-in Play Pipe Rehabilitation
- 40 05 37.71-4: Geopolymer Mortar Rehabilitation

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Each of these sections contains a subsection which states that on-site superintendent resumes for the contractor must be submitted, but provides the City discretion as to whether the absence of resumes would warrant a determination that the bid was non-responsive: "Failure to provide the required information [resumes] *may* result in determining a contractor to be non-responsive."

The City subsequently published 5 addenda packages. While the addenda addressed certain specifications, and notably extended the bid submission deadline to January 12, 2023, they did not address the resume submission issue.

C. The Bid Proposals And Notice Of Intent To Award The Project To MCI

MCI submitted its bid proposal for \$15,701,000.00, on January 12, 2023. MCI understands that the only other bid proposal was from Michels, and was significantly higher than MCI's bid, at \$16,855,430.00.

On January 23, 2023, the City issued a Notice of Intent to Award the contract for the Project to MCI, the apparent low bidder. (Exhibit 3, Notice of Intent.)

D. Michels' Bid Protest And MCI's Response

On January 27, 2023, Michel's submitted a bid protest to the City in letter format. The bid protest asserted that MCI's bid was not responsive to the bid documents based on the following two grounds: (1) MCI's statement of experience did not meet the requirements stated in the bid documents; and (2) MCI did not submit superintendent resumes for its subcontractors. (Exhibit 4, Michels' Bid Protest.)

Of note, while the protest letter promised to provide "specific references to ... legal authorities," not a single decisional authority was cited. As detailed in the legal analysis section below, California law does not support Michels' bid protest. Moreover, Michels did not cite any evidence, or event contend, that the failure to submit superintendent resumes had any impact on the bid amount or created an unfair competitive advantage in favor of MCI.

On January 30, MCI submitted a letter response to the bid protest. As to MCI's first point, the letter noted that the projects listed in MCI's bid plainly satisfied the five experience criteria in the bid documents. MCI listed three "substantially similar" projects on which it was the general contractor, the project completion date was after January 2010, and at least two of the projects were completed at an operating wastewater treatment facility. In sum, MCI's bid plainly complied with the bid requirements on the issue of MCI's experience. Michels' bid protest

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appeared to purposefully misrepresented MCI's bid in an effort to obtain the Project. (Exhibit 5, MCI Response to Bid Protest.)

As to the second ground of the bid protest, MCI noted that their bid was consistent with the bid documents (the submittal checklist, notice to contractors, and proposal), which precisely defined the requirements for a responsible and responsive bid, and none of which referenced resumes.

E. The City Sustains Michels' Bid Protest, In Part, And Issues A Revised Notice Of Intent To Award

On February 7, the City issued a Revised Notice of Intent to Award Contract. The Revised Notice noted that the City reviewed the bid protest and MCI's response, and determined that the bid protest should be sustained. (Exhibit 6, Revised Notice of Intent.)

In an accompanying memo, the City found that the first ground for Michels' bid protest – that MCI failed to meet the requirements listed on the City's Statement of Bidder's Experience – was "baseless," as three of the five projects referenced in MCI's bid met the Bidder's Experience requirements (of the remaining two projects, one was not yet complete, and the other did not meet the minimum pipeline diameter). (Exhibit 6, Revised Notice of Intent, Memo.)

The City found that the second ground for Michel's bid protest – that MCI's bid did not contain superintendent resumes – was valid, without acknowledging the discretionary nature of the requirement ("the failure to submit *may* result in determining a bidder to be non-responsive). The City acknowledged that MCI had since provided the required documentation, but noted that accepting the late submittal would be "inconsistent with ensuring a fair, transparent, and competitive procurement process." The City did not cite any evidence or rationale as to why the absence of subcontractor superintendent resumes rendered the procurement process unfair, non-transparent, or non competitive. (*Id.*)

F. Post Revised Notice Of Intent Communications With Department Of Public Works

On February 16, MCI requested a formal hearing from the City to contest the Revised Notice of Intent. In response, the Public Works Department notified MCI that the City Council was scheduled to consider the recommended award of the Project at its regularly scheduled public meeting on April 25, 2023, and that MCI could submit any documents to the City Council by no later than April 21. The e-mail further notified MCI that it could address the City Council when it receives public comment during its consideration of the Public Works Director's Recommendation at the April 25 meeting. (Exhibit 7, E-mail Communication with Public

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Works.) In addition to this written submission and the attached documents, MCI intends to present its position at the meeting on April 25.

III. LEGAL ARGUMENT

A. California Law Dictates That An Agency May, And Should, Waive Bid Irregularities Where They Do Not Impact The Amount Of The Bid Or Afford Competitive Advantage, And The Waiver Is In The Public Interest

The fundamental rule of competitive bidding, applicable to public works projects in the City of San Jose, is that a contract "must be awarded to the responsible bidder submitting the lowest responsive bid." (San Jose Muni Code §27.10.540, "Award"; California Public Contract Code §10180; *Valley Crest Landscape, Inc. v. City Council*, 41 Cal.App.4th 1432, 1438 (1996).) The term "responsive," at issue here, means that the bid promises to do what the bidding instructions require, and responds accurately and completely to the solicitation. (*Valley Crest, supra*, at 1438; *Ghilotti, supra*, at 904.) It is clear, however, that California law permits considerable leeway in "responsiveness." As the cases below illustrate, the de minimis variance in MCI's bid was inconsequential to the bidding process or amount, and did not justify sustaining Michels' unreasoned bid protest. As a result, and in light of the public interest of saving more than \$1.15 million in project fees, the City must revoke its Revised Notice Of Intent and award the Project to MCI.

1. Ghilotti Construction v. City of Richmond

Ghilotti involved competing bids on a road construction project in the city of Richmond. The contract specifications included a provision that the contractor would itself perform "contract work amounting to not less than 50 percent of the original total contract price." However, the lowest bid, by a company called GBCI, showed that "it would be subcontracting 55.44 percent of the total contract price." After a protest by the second lowest bidder, GCC, the city decided to "waive the 50 percent requirement as 'nonsubstantive and inconsequential' and awarded the contract to GBCI. Thereafter, the trial court issued an order denying GCC's petition for writ of mandate to prevent the city from awarding the contract to GBCI. (Ghilotti, supra, at 903.)

The Court of Appeal affirmed the trial court's decision, emphasizing that a deviating bid must be set aside only if "the deviation is capable of facilitating corruption or extravagance, or likely to affect the amount of bids or the response of potential bidders." (*Ghilotti*, *supra*, at 908.) These considerations must be evaluated "from a practical rather than a hypothetical standpoint, with reference to the factual circumstances of the case. *They must also be viewed in light of the public interest, rather than the private interest of a disappointed bidder.*" (*Id.* at 908-909.) The

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Court noted that "it certainly would amount to a disservice to the public if a losing bidder were to be permitted to comb through the bid proposal or license application of the low bidder after the fact, and cancel the low bid on minor technicalities, with the hope of securing acceptance of his, a higher bid. Such construction would be adverse to the best interests of the public and contrary to public policy." (*Ghilotti*, supra, at 908-909.)

In comparison to the percentage of subcontractor work requirement in *Ghilotti* – a requirement which appears critical but was nonetheless deemed "inconsequential" – the failure to submit subcontractor superintendent resumes here was entirely innocuous and insignificant; a "minor irregularity" which should be waived under section 27.10.570 of the Municipal Code.

2. <u>Bay Cities v. City of San Leandro</u>

In *Bay Cities*, the City of San Leandro published a call for bids for the construction of a BART project. The project requirements included submitting a proposal, using a standard form provided by the City, and providing a bid deposit securing the proposal, which could be in the form of a bond executed by an authorized surety company. Information regarding the bid requirements was on the face of the City's contract book. (*Bay Cities*, *supra*, at 1184-1185.)

Contractor G&B was the low bidder, however its bid was missing the first page of its bid bond, which contained the terms of the form bid bond. The bid did include the second page, which contained the signatures of the surety, G&B's president, and notary certificates. G&B subsequently rectified the error, submitting the first page of the bid bond, albeit after the sealed bids had been opened. (*Id.*)

The second lowest bidder, Bay Cities, filed a bid protest, arguing that G&B's bid was non-responsive due to the omitted page. G&B's attorney responded, stating that the inadvertent irregularity was minor and waivable by the City. The City ultimately agreed with G&B and adopted a resolution identifying G&B as the low bidder and waiving any irregularities in G&B's bid. (*Id.* at 1185-1186.)

Bay Cities' petition for a writ of mandate was denied by the Alameda Superior Court, with the court reasoning that the irregularity was "minor," and did not affect the amount of the bid or provide G&B with a competitive advantage. Moreover, the bid bond was a form document and thus it was apparent that the second page of the bid bond referred to the first, and the second page identified the project at issue.

The Court of Appeal affirmed the trial court's decision, citing *Ghilotti* for the well-established proposition that a bid which "substantially conforms to a call for bids may, though it is not

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strictly responsive, be accepted if the variance cannot have affected the amount of the bid or given a bidder an advantage or benefit not allowed other bidders or, in other words, if the variance is inconsequential." (*Id.* at 1188.) The court further referenced the *Ghilotti* "inconsequential" test: whether the deviation gave the bidder an unfair competitive advantage or otherwise defeated the goals of insuring economy and preventing corruption in the public contracting process. (*Id.*) As in *Ghilotti*, the Court emphasized the practical nature of the evaluation, with reference to the facts of the case, viewed in light of the public interest. The court echoed the *Ghilotti* mandate that a losing bidder should not be permitted to challenge the low bid on a technicality, forcing the public entity to accept a higher bid. (*Id.* at 1189.)

In analyzing the failure to provide the first page of the bid bond, the court noted that the first, missing page, contained only three blank places for the insertion of additional information: (1) the name of the principal (i.e., the bidder), (2) the name of the surety, and (3) the date of the submission of the bid. (*Id.* at 1190.) Yet the second page of the bid bond, which was submitted, contained the name of the principal and surety, and there could be no confusion at to the date of submission of the bid. In sum, the city had the required information, even absent the submission of the first page. Likewise here, the City had the requisite information to make a determination that MCI's subcontractors were qualified, including their names, contractor license numbers, DIR registration numbers, place of business, and portion of work. The only absent information were resumes for the precise superintendent, a person that may very well change by the date of commencement of the project. Like the alleged failure to submit a complete bid bond in Bay Cities, the mere absence of superintendent resumes could not be deemed "consequential," or impact the bid amount.

3. Konica v. Regents of University of California

In contrast to *Ghilotti* and *Bay Cities*, *Konica* provides an example of a bid that contained a "consequential" deviation that impacted the bid amount and led to a competitive advantage, and was therefore properly set aside. In *Konica*, the University of California advertised a "Request for Quotation" on a contract for photocopy machines and service, including detailed performance specifications for various categories of copy machines. Konica was underbid by Copy–Line. The University awarded Copy–Line the contract even though the machines designated in its bid did not meet the required specifications in two categories, and the machines that where required to be bid (and which Konica did bid), cost thousands of dollars more than those bid by Copy–Line.

The Court examined legal authorities tracing back to 1941 for the proposition that a deviating bid may still be accepted "if the variance cannot have affected the amount of the bid or given a bidder an advantage or benefit not allowed other bidders," because it is "inconceivable that

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inconsequential departures will not appear ..." (*Konica*, *supra*, at 454, citing 47 Ops.Cal.Atty.Gen. 129, 130–131 (1966), quoting *Dougherty v. Folk* (1941) 70 Ohio App. 304.) In view of those authorities, the court conducted the necessary fact specific analysis and found that neither Copy–Line nor the University directly disputed the fact that strict adherence by Copy–Line to the performance specifications would have resulted in an increased bid. Because the deviation from specifications gave Copy–Line a competitive advantage, the court concluded the contract had to be set aside.

The distinction between the present matter and *Konica* is clear. Unlike *Konica*, there is no evidence, or even argument, that the absence of superintendent resumes had zero impact on the bid amount or process.

4. *Menefee & Valley Crest*, The Alternative Bid Bond Release Test

The *Menefee* and *Valley Crest* cases, among others, state an alternative approach to evaluating the validity of a bid, the bid bond test. As detailed below, MCI's bid passes the bid bond test as well.

In *Menefee v. County of Fresno*, 163 Cal.App.3d 1175 (1985), Brewer–Kalar, the lowest bidder, failed to sign the bid on the appropriate line. County counsel determined the bid was "non-responsive" and invalid, and advised the board of supervisors not to accept the bid. The board voted to accept the lowest bid and waive any irregularity due to the absent signature. The second lowest bidder, Menefee, filed a petition for a writ of mandate to compel the board to award the contract to it. The trial court denied the writ and the appellate court affirmed. The reviewing court determined Brewer–Kalar's bid was valid despite the absence of the signature on the appropriate line, because the bid was signed elsewhere.

In *Menefee* – decided well prior to *Ghilotti* and *Bay Cities* – the court reasoned that the issue in determining the validity of a bid is whether the bidder would be liable on its bond if it attempted to back out after the bid was accepted, and that waiver of an irregularity in a bid should only be allowed if it would not give that bidder an unfair advantage by allowing the bidder to withdraw its bid without forfeiting its bid bond. "Thus, we should ask—what would have happened if Brewer–Kalar had refused to enter into a contract and sought to recover its bid bond? If they could use the absence of an executing signature on their bid to avoid a contract, then they had an unfair advantage—the opportunity to back out—not given to other bidders who signed their bids properly." (*Id.* at 1181.) The court found that under the statute for relief of bidders, Public Contract Code §5103, ¹ a bidder could be released only for typographical or arithmetical errors,

¹ Public Contract Code §5103, "Grounds for Relief," states as follows:

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not a mistaken submission of a bid. Since relief was not available, the irregularity could be waived and the bid was valid. (*Id.*). Likewise here, MCI could not have been released from its bid bond for failure to submit subcontractor superintendent resumes, as that is not a "typographical or arithmetical error," but rather an error in reading the specifications under §5103. As such, under *Menefee*, the "irregularity" in MCI's bid can, and should, be waived.

In *Valley Crest Landscape, Inc. v. City Council*, 41 Cal.App.4th 1432 (1996), the second lowest bidder on a city project protested the lowest bid due to its failure to comply with a contract requirement that the bidder perform at least 50 percent of the work itself. The lowest bid, by North Bay Construction, was \$4,077,675, however it deviated from the bid requirements in that it specified that 83 percent of the work would be performed by a subcontractor. The city engineer contacted North Bay regarding its subcontracting figures, warning North Bay its bid would be considered nonresponsive unless further information was forthcoming. North Bay responded that the 83 percent figure was "not correct," and was the product of estimated subcontracting amounts which were all that were available until just before the bid closing. North Bay provided "actual correct subcontractor percentages' totaling 44.65 percent." The city engineer and the public works director spot-checked the revised percentages by contacting the five largest subcontractors, and were satisfied the new figures were accurate. The city council voted to award the contract to North Bay.

Valley Crest, the second low bidder, sought a writ of mandate in the Superior Court, which was denied. The Third District Court of Appeal reversed, following the approach set forth in *Menefee*: a bid irregularity may only be waived if it would not give the bidder an unfair advantage by allowing it to withdraw its bid without forfeiting the bid bond. (*Id.* at 1442.) The court concluded,

The bidder shall establish to the satisfaction of the court that:

The San Jose Municipal Code §27.10.600 expressly incorporates this public contract code section, stating: "The Director may consent to relieving a bidder of its bid for mistake if the bidder established the grounds for such relief in accordance with California Public Contracts Code Sections 5101 through 5103, as those sections may be amended."

⁽a) A mistake was made.

⁽b) He or she gave the public entity written notice within five working days, excluding Saturdays, Sundays, and state holidays, after the opening of the bids of the mistake, specifying in the notice in detail how the mistake occurred. (c) The mistake made the bid materially different than he or she intended it to be.

⁽d) The mistake was made in filling out the bid and not due to error in judgment or to carelessness in inspecting the site of the work, or in reading the plans or specifications.

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North Bay had an unfair advantage because it could have withdrawn its bid. Misstating the correct percentage of work to be done by a subcontractor is in the nature of a typographical or arithmetical error. It makes the bid materially different and is a mistake in filling out the bid. As such, under Public Contract Code section 5103, North Bay could have sought relief by giving the City notice of the mistake within five days of the opening of the bid. That North Bay did not seek such relief is of no moment. The key point is that such relief was available. Thus, North Bay had a benefit not available to the other bidders; it could have backed out. Its mistake, therefore, could not be corrected by waiving an 'irregularity.' (*Id.*)

Again, under Public Contract Code §5103, MCI could not have withdrawn its bid as a result of the absence of subcontractor superintendent resumes. As a result, there was no unfair advantage to MCI, and its bid irregularity could, and should, be waived.

B. The Failure to Submit Subcontractor Resumes was Inconsequential

Under the authorities cited above, a court of law clearly would not view the failure to submit a subcontractor superintendent resume as "consequential" where the requirement was not on the face of the bid, but rather buried in the technical specifications, and where there is no evidence (or even argument) that the deviation afforded MCI an advantage or had any impact on the bid process whatsoever.

This is further elucidated by MCI expert Jim Foley, clarifying that subcontractor resumes are typically addressed through the submittal process at the commencement of the work on a project, not in the bidding process. (Exhibit 1, Expert Opinion.) That is because the construction industry is subject to the same or similar employee turnover as most other industries, and there is no guarantee that a superintendent disclose in a bid package will be the superintendent months later when the project commences.

Moreover, had the City intended for the subcontractor superintendent resumes to be a consequential requirement, it should have been included in the procurement documents and, most notably, the Submittal Checklist, which was developed by the City to assure that bidders were fully aware of all documents required for submitting a successful bid and eliminating opportunities for bid protests or bid subversion. The City's mistake in not including the resume requirement in the Submittal Checklist ironically defeated the intent of the checklist, as Michels has opportunistically subverted MCI's bid based on an obscure technicality. At the very least, the absence of any mention of resumes in the Submittal Checklist is a glaring indication that it was not a consequential aspect of the bid process, and that the City's revocation of MCI's bid on that basis was unjustified.

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In sum, neither Michels nor the City has, or can, make a case that the deviation in MCI's bid was consequential under the authorities cited above, or that it would have justified a release from MCI's bid bond. As a result, the absence of subcontractor superintendent resumes cannot serve as a basis for usurping this project from MCI, only to saddle the City with a contract that exceeds MCI's bid by more than \$1.15 million.

C. The City Must Take Action to Rectify Its Error

Given that the sustaining of Michels' bid protest and issuance of the Revised Notice to Intent did not comply with California Law, the City must take action to rectify this error. Under the Municipal Code, the City is required to revoke its Revised Notice of Intent, and reinstate its original Notice of Intent to Award to MCI, the lowest responsible and responsive bidder. (San Jose Municipal Code §27.10.540.) Alternatively, the City may reject all bids and re-advertise for new bids. (*Id.* at §27.10.530.) In the event the City takes neither action and moves forward with a contract for the project with Michels, MCI will seek all available relief from the Superior Court.

MCI looks forward to presenting its position, and addressing any questions, at the April 25, 2023 City Council meeting. If you have any questions in the meantime, or need further information, please contact me at your earliest convenience.

Regards,

JOHN W. BUSBY II

JWB/sm

cc: Lauren Profeit, CIP Procurement Manager (<u>lauren.profeit@sanjoseca.gov</u>)

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Mayor and Council Members:

Mayor Matt Mahan (<u>mayoremail@sanjoseca.gov</u>)

Rosemary Kamei, District 1 (District 1@sanjoseca.gov)

Sergio Jimenez, District 2 (District2@sanjoseca.gov)

Omar Torres, District 3 (<u>District3@sanjoseca.gov</u>)

David Cohen. District 4 (<u>District4@sanjoseca.gov</u>)

Peter Ortiz, District 5 (<u>District5@sanjoseca.gov</u>)

Devora Davis, District 6 (District6@sanjoseca.gov)

Bien Doan, District 7 (<u>District7@sanjoseca.gov</u>)

Domingo Candelas, District 8 (<u>District8@sanjoseca.gov</u>)

Pam Foley, District 9 (<u>District9@sanjoseca.gov</u>)

Arjun Batra, District 10 (<u>District10@sanjoseca.gov</u>)

James W. Foley, P.E.

ENGINEERING AND CONSTRUCTION CONSULTANT

P. O. Box 2153 Saratoga, California 95070 (408) 777-9917 jim@jimfoley.com

Bid Protest - Project 9850 - Yard Piping Improvements Phase 2

Expert Opinion

I have been requested by John W. Busby, II, Attorney at Law, P.C., counsel for Mountain Cascade, Inc., to provide my opinion regarding the bid protest by Michels Trenchless, Inc. and the associated staff report prepared by Lauren Profeit, CIP Procurement Manager, dated February 7, 2023. I retired from the City of San Jose in 2003 as a Deputy Director of Public Works. I was a key participant in the 1992 update of the standard specifications, and the associated bid process, bid documents, and construction contract. The bid process and documents are essentially the same today as they were in 1992. In my 27+ year career with the City, I was directly involved in bidding for approximately 1000 projects.

Contrary to the findings of the staff report, I find that Mountain Cascade, Inc.,(MCI) is the lowest responsive, responsible bidder for the following reasons:

- 1. The "Bid Documents" were completely clear and filled out correctly and submitted by MCI as a responsive bid. There was no requirement in the bid documents related to the requirement for superintendent resumes as referred to in Sections 33 and 40 of the project technical specifications. The Bid Documents in the "Specifications" included a "Submittal Checklist for Bidders" that was developed by San Jose to assure that bidders were fully aware of all documents required for submitting a successful bid and eliminating opportunities for bid protests and/or bid subversion. Therefore, MCI's bid was responsive since they submitted all required documents in accordance with the requirements of this checklist Section 00 01 13 (page 9) of the "Specifications."
- 2. The requirement for superintendent resumes is part of the technical specifications and is not referenced in any of the bid documents Notice to Contractors included. The plans and specifications for the project are comprised of 2 books of 1351 pages each or 2702 pages and 5 addenda. If this resume requirement were an essential requirement of the project, it should have been addressed in the Notice to Contractors and provisions made for inclusion in the bid package itself. And it should have been included as an item in the "Submittal Checklist for Bidders." This requirement for resumes as part of the bid documents is essentially buried in the project technical specifications in an obscure location.
- 3. The requirement for resumes as part of a bidding requirement is ill advised. Should the individuals submitted as part of the bid process leave the employment of the successful low bidder, a contract change order would be required for a replacement individual. A contract change order could result in an increased contract price or a possible claim from a contractor.

When resumes of a contractor's key personnel are a project requirement, industry custom and practice dictates that this requirement be addressed through the submittal process at the commencement of work on a project. As a part of the technical specifications, the contractor can be required to submit resumes of key personnel for approval by the owner. This submittal process is common to every project. A bid proposal is not the correct document for including resumes of key personnel who may or may not be available at the time construction commences. Bids for this project were opened on January 12, 2023, and it is unlikely that actual construction will start until summer 2023 - over 5 months after bid opening.

4. MCI's bid is responsive. The non-inclusion of the resumes by MCI is inconsequential and at a minimum constitutes a waivable "informality" or defect and should be treated as such. Nor are superintendent resumes critical to the bidding process or the submission of the lowest responsive bid. Page 2 of the "Proposal to the City" states that "Bidder understands that the City reserves the right to reject any or all bids and to waive any informalities in the bidding." Both the San Jose City Charter (Exhibit A)and the San Jose Municipal Code (Exhibit B) recognize that "informalities or minor irregularities in bids or bidding" may be waived. (San Jose City Charter Section 1217 (e) (5) and San Jose Municipal Code §27.10.570, "Minor Irregularities.")

The City is required to award the contract in the amount of \$15,701,000.00 to Mountain Cascade, Inc., the lowest responsible, responsive bidder, thus saving the taxpayers \$1,154,430.00.

Respectfully submitted,

James W. Foley, P.E.

Bid Protest - Project 9850 Yard Piping Improvements Phase 2 Expert Opinion

EXHIBIT A



CITY CHARTER

Adopted in 1965 and as Amended by Voters through November 2022

Updated February 2023 (pending attorney review)

City government at any time. Such accountant shall at all times abide by the current and most accepted standards of municipal accounting. As soon as practicable after completion of a special audit, if such an audit should be ordered by the Council, said independent accountant shall submit a special report to the Council setting forth their findings and recommendations with respect to the matters covered by such special audit. Also, as soon as practicable at the end of the fiscal year, a final report shall be submitted by such independent accountant to the Council setting forth their findings and recommendations respecting the records, accounts, and fiscal procedures covered by their general audit. Three (3) copies of each report shall be placed on file in the office of the City Clerk where they shall be available for public inspection.

Amended at election June 7, 1994 Amended at election November 8, 2022

SECTION 1216. Bonded Debt Limit.

The City shall not incur any indebtedness evidenced by general obligation bonds which shall in the aggregate exceed the sum of fifteen percent (15%) of the total assessed valuation of all the real and personal property within the City.

SECTION 1217. Public Works Procurement Requirements.

- (a) DEFINITIONS. For the purposes of this Section, the following words have the following meanings.
 - (1) "Public Works Project" means a project for the construction, erection, improvement or demolition of any public building, street, bridge, drain, ditch, canal, dam, tunnel, sewer, water system, fire alarm system, electrical traffic control system, street lighting system, parking lot, park or playground. "Public Works Project" shall not mean or include the following: (i) maintenance of any Public Works Project, (ii) any repairs, construction, erection, improvement, or demolition incidental to such maintenance, or (iii) the planting, care or maintenance of trees, shrubbery or flowers.
 - (2) "Major Public Works Contract" means a City contract for a Public Works Project that, at the time of award, requires the expenditure of City funds of more than \$600,000, excluding the cost of any materials, supplies or equipment the City may have acquired or may separately acquire.
 - (3) "Minor Public Works Contract" means a City contract for a Public Works Project that, at the time of award, requires the expenditure of City funds in an amount less than the threshold amount to be a Major Public Works Contract.

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- (4) "Design-Build Contract" means a City contract in which both the design and construction of the Public Works Project are procured from a single entity.
- (b) ADJUSTMENT FOR INFLATION. Every July 1st the \$600,000 threshold used to define a Major Public Works Contract will be adjusted for inflation in the construction industry as set forth more specifically by ordinance of the City Council.
- (c) PROCUREMENT MAJOR PUBLIC WORKS CONTRACTS. The primary means of procuring a Major Public Works Contract will be formal public bidding in which, following public notice, the City will award the contract to the lowest responsive bidder that is responsible. Formal public bidding will occur consistent with the requirements in Subsections (e) through (h) of this Section, and as otherwise set forth by ordinance of the City Council.
 - (1) As a procurement alternative for Major Public Works Contracts, the City can select a contractor using objective criteria to determine the best combination of price and qualifications. This procurement process will be set forth by ordinance of the City Council consistent with the following requirements.
 - (i) The City will follow the formal bidding requirements in Subsections (e) through (h) except as otherwise provided in Subsections (c)(1)(ii) through (c)(1)(v).
 - (ii) The City will designate a panel to evaluate the qualifications of the bidders and to assign to each bidder a qualification score. The panel will base the qualification score on an evaluation of objective criteria that may include, but is not limited to, a bidder's safety record, past performance, labor compliance, demonstrated management competence, financial condition and relevant experience.
 - (iii) The qualification score may be determined as part of a prequalification or as part of the bid solicitation. In either case, the relevant documents will set forth the criteria, methodology and rating system the panel will use to evaluate bidders.
 - (iv) Bid prices will remain sealed until after the evaluation panel has assigned a qualification score to each bidder.
 - (v) Based on a formula that uses the assigned qualification score and bid price, the City will award the contract to the lowest responsive bidder that is responsible.

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- (2) As a procurement alternative for Major Public Works Contracts over \$1,000,000, the City may negotiate and award a Design-Build Contract without formal public bidding if the City Council finds that such a contract would save money or result in faster project completion. The process for competitively selecting a design-build contractor, and for negotiating and awarding a Design-Build Contract, will be set forth by ordinance of the City Council.
- (d) PROCUREMENT MINOR PUBLIC WORKS CONTRACTS. The City will procure Minor Public Works Contracts in the manner set forth by ordinance of the City Council.
- (e) NOTICE REQUIREMENT AND PROCEDURE.
 - (1) The notice inviting bids shall set a date for the opening of bids, and shall be published at least once, at least ten (10) days before the date set for opening of bids, in a newspaper of general circulation in the City or electronically so that the notice is publicly available to the general community of potential bidders.
 - (2) All bids, including such bidder's security as may be required, shall be presented under sealed cover.
 - (3) If the successful bidder fails to execute the contract within the time specified in the notice inviting bids or in the specifications referred to therein, the amount of the security required, if any, may be declared forfeited to the City and may be collected and paid into its General Fund, and all bonds so forfeited may be prosecuted and the amount thereof collected and paid into such fund.
 - (4) All bids shall be publicly opened, and the aggregate bid of each bidder declared at a time and place specified in the notice inviting bids.
 - (5) The Council shall have the right to waive any informalities or minor irregularities in bids or bidding.
- (f) APPRENTICESHIP PROGRAM. Nothing herein shall preclude the City from including in any contract provisions that require contractor participation in an apprenticeship program for at-risk youth.
- (g) OTHER PROGRAMS. Nothing herein precludes the City from implementing otherwise lawful programs supporting the use of small, local or economically disadvantaged businesses.
- (h) SELECTION OF LOWEST RESPONSIBLE BIDDER. If no bids are received, the Council may re-advertise, or have the "Public Works Project"

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Bid Protest - Project 9850 Yard Piping Improvements Phase 2 Expert Opinion

EXHIBIT B

SAN JOSE MUNICIPAL CODE

VOLUME I 2000

Contains the 2022 Supplement 41, including local legislation current through December 13, 2022



info@municode.com | 800.262.2633 | www.municode.com P.O. Box 2235 Tallahassee, FL 32316

27.10.560 Award Authority - Director.

- A. The Director is authorized to award and execute a Major Public Works Contract under the following conditions:
 - 1. The amount of the Major Public Works Contract is \$1,000,000 or less, exclusive of the amount of any bid alternates being awarded; and
 - 2. There is no unresolved bid protest that conforms to the requirements of Part 6 of this Chapter 27.10.
- B. The Director is authorized to award and execute a Major Public Works Contract under the following conditions:
 - 1. The authority to award bid alternates, even if their cost would cause the Major Public Works Contract to exceed \$1,000,000;
 - 2. The authority to reject bid alternates; and
 - 3. The authority to establish a construction contingency in an amount consistent with Section 27.04.050.
- C. The Director's authority under this Section is subject to the limitation that the contract amount, plus the project delivery costs, plus the construction contingency must be less than or equal to the amount appropriated for the project.
- D. The Director's authority under this Section includes the authority to approve the plan or design associated with the Major Public Works Contract the Director awards and executes.
- E. The \$1,000,000 threshold amount in this Section is subject to adjustment for inflation in accordance with Section 27.04.100.

(Ords. 30308 and 30540.)

27.10.570 Minor Irregularities.

In accordance with Section 1217(e)(5) of the Charter of the City of San José, informalities or minor irregularities in bids or bidding may be waived.

(Ord. 30308.)

Created: 2023-03-22 14:22:58 [EST]

From: Vargas, Elizabeth (PW) Bcc: dwilking rschlothauer@ ndobids ï estimatin szandofs csmith Subject: City of San Jose; ESD 9850 Yard Piping Improvements Phase 2- Outreach Notification Date: Monday, November 21, 2022 10:29:00 AM Attachments: 9850-YPP2-00 10 11 NTC Non Municipal.doc

Hello,

The City of San José is advertising a Request For Bids (RFB) for the following project:

ESD 9850 - Yard Piping Improvements Phase 2

See the attached Notice To Contractors for more information.

Interested vendors are directed to www.biddingo.com/sanjose to view the solicitation and submit questions.

The submittal deadline is **December 15, 2022**.

Thank you,

Elizabeth Vargas

Senior Analyst - Public Works - Procurement City of San José 200 E. Santa Clara St., SJ CA 95113



SECTION 00 91 13 ADDENDUM NO. 1

TO PROCUREMENT DOCUMENTS FOR THE

9850 - YARD PIPING IMPROVEMENTS PHASE 2

ISSUE DATE: 11/22/2022

Notice is given that the following changes are hereby made to the procurement documents for the above-referenced project.

THIS ADDENDUM CONTAINS 6 PAGES (Including attachments)

Addendum No. 1 for the 9850 – Yard Piping Improvements Phase 2 Date: 11/22/2022

Page 1 of 6



SPECIFICATIONS:

1. <u>Replace</u> the Notice to Contractors in its entirety with the Revised Notice to Contractors attached and included in this addendum (Addendum No.1).

CITY OF SAN JOSE ENVIRONMENTAL SERVICES DEPARTMENT CIP PROCUREMENT (408) 535-8300 / PW_PROCUREMENT@SANJOSECA.GOV

SECTION 00 10 11 NOTICE TO CONTRACTORS

NOTICE IS HEREBY GIVEN that the City of San José ("City") seeks sealed bid proposals in accordance with the following.

Project Name: 9850 – Yard Piping Improvements Phase 2 ("Project")

Description of Work: The Project generally involves: 1) Partial Depth Concrete Crown Repair with epoxy coating on the pipelines of 120" Raw Sewage ("RS"), 84" Secondary Effluent, 102" Nitrification Influent and Nitrification Junction Structure, and 84" Primary Effluent; 2) Rehabilitation of 48" Santa Clara Force Main Segment 1 with Cured-In-Place Pipe; 3) Rehabilitation of 48" Santa Clara Force Main Segment 2 and 3 with geopolymer mortar and epoxy coating; 4) Rehabilitation of 96" RS with carbon fiber-reinforced polymer; 5) Installation of Containment Wall at Effluent Junction Structure 1 and Fish Screens; 6) Installation of epoxy coating for the upper 4' of the walls and the ceiling, and containment wall at the access opening, replacement of a 14" pipe penetration, sediment removal and miscellaneous rehabilitation in No. 3 Water Wet Well at Final Influent Pump Station.

Engineer's Estimate: \$12,200,000.

FILING OF BIDS

All proposals must be filed with the Director of Public Works, City of San José, City Hall, 200 E. Santa Clara St., 5th Fl., San Jose, CA 95113-1905, on or before 3:00 p.m. on **December 15, 2022**.

A representative of the Director of Public Works will publicly open and declare the aggregate bid of each bidder, using the Zoom virtual meeting platform, shortly after the filing deadline. Interested parties can access the virtual bid opening by visiting https://www.sanjoseca.gov/CIPBids.

OBTAINING PROCUREMENT DOCUMENTS

The City is using Biddingo, an online bid solicitation website, to facilitate this procurement. This procurement is registered on Biddingo (https://www.biddingo.com/sanjose) under the bid number and bid name above and has the following commodity code classifications(s):

[017500] Concrete

[100301] Construction – Backfill, Digging, Ditching, Grading, Rock Stabilization, Etc.

[100304] Construction – Curb, Gutter, Sidewalk, (Includes Driveway)

[100306] Construction – Pipeline (Including Removal, Relocation, Lining, and Pipe Fittings)

[100308] Construction – Shoring and Reinforcement

[100310] Construction – Structural and Reinforcement Steel

[100313] Construction – Utilities

[100314] Construction – Vertical Concrete, Pour-in- Place, and Form/Place/Finish

[100315] Construction – Wastewater Treatment Plant

[100501] Demolition Services

[023000] Earthwork and Paving Equipment

[101101] Excavation Services

[101401] Hydraulics (Pump, Hydraulic Motor, Valves, Gauges, Etc.) – Installation, Maintenance, Repairs

[040600] Instruments and Testing

9850 – YARD PIPING IMPROVEMENTS PHASE 2

00 10 11 - 1 NTC NON MUNICIPAL

REVISED 04/25/22

CITY OF SAN JOSE NOTICE TO CONTRACTORS

ENVIRONMENTAL SERVICES DEPARTMENT CIP PROCUREMENT (408) 535-8300 / PW_PROCUREMENT@SANJOSECA.GOV

[047000] Measurement and Control Devices

[071200] Sewage and Waste Treatment

[071500] Sewer and Storm Drain

All documents and information related to this procurement, including the Project plans and specifications, are on the Biddingo website under the bid number and bid name above. Once registered, bidders can view and download information regarding this procurement, including the bid and contract documents, as well as submit questions related to the bid and contract documents.

Once a bidder views or downloads documents for this bid, the bidder becomes a "document taker." Biddingo will send "document takers" a notification every time the City posts an addendum, responds to a question and/or provides new information related to this procurement. Each bidder is responsible for selecting the appropriate notification options related to its Biddingo account. Following review by the City, proposals will be uploaded to Biddingo.

BIDDER'S RESPONSIBILITY TO CHECK FOR UPDATES

Bidders must periodically check Biddingo to make sure the bidder has the most recent information about this procurement.

REQUESTS FOR INFORMATION

Bidders must submit questions or requests for information concerning any part of this bid in writing to the City via Biddingo. The City will not respond to any communication or question submitted directly to City staff or City consultants. Submit questions via Biddingo no later than December 8, 2022 at 3:00 pm.

All bidders are expected to have read and understand the "Procurement and Contract Process Integrity and Conflict of Interest," Section 7 of the Consolidated Open Government and Ethics Provisions adopted on August 26, 2014, a complete copy of which can be found at https://www.sanjoseca.gov/home/showdocument?id=19565.

Any bidder who violates this policy will be subject to disqualification. The grounds for disqualification include contact regarding this procurement with any City official or employee or evaluation team member other than the Procurement Contact or Purchasing Officer from the time of issuance of this solicitation until the end of the protest period.

RELIANCE UPON INFORMATION

Bidders can only rely on information obtained through Biddingo. Bidders can not rely on any other written or oral statements of the City or its officers, directors, employees or agents regarding this procurement. In the event a bidder obtains information about this procurement through any means other than Biddingo, the City will not be responsible for the completeness, accuracy or timeliness of the final bid proposal.

BID SECURITY

Each bid must be accompanied by cash, a certified check, a cashier's check or a bidder's bond in the sum of not less than 10% of the total aggregate amount of the bid. Checks shall be made payable to the order of the City of San José. Bonds shall be executed by a surety possessing a valid certificate of authority issued by the California Department of Insurance and shall name the City of San José as beneficiary. All bids must be addressed to the Director of Public Works, City of San José, shall bear the Project Number and Name and be in a sealed envelope.

PREBID MEETING

A non-mandatory site visit will be held on Tuesday, November 29, 2022 at 10:00am at the San José-Santa Clara Regional Wastewater Facility, 700 Los Esteros Road, San José, CA 95134. Attendees will check in at the 9850 - YARD PIPING IMPROVEMENTS 00 10 11 - 2 NTC NON MUNICIPAL PHASE 2

REVISED 04/25/22

CITY OF SAN JOSE ENVIRONMENTAL SERVICES DEPARTMENT CIP PROCUREMENT (408) 535-8300 / PW_PROCUREMENT@SANJOSECA.GOV

Administration Building on Los Esteros Road and meet in Conference Room A. This meeting will be held to allow potential bidders to view the project location. No questions will be answered at this meeting.

The following Personal Protective Equipment is required for the site visit:

- Hard Hat
- Safety Glasses
- Safety Shoes
- Safety Vest

DEPOSIT OF SECURITIES IN LIEU OF RETENTION

Pursuant to the terms and conditions set forth in Public Contracts Code Section 22300, the contractor may substitute certain securities for any money withheld by City as retention to ensure contractor's performance under the contract. Such substitution of securities in lieu of retention shall be at the contractor's request and at contractor's sole expense. The securities shall be in an amount equivalent to the retention to be released.

PREVAILING WAGES AND RELATED LABOR REQUIREMENTS (Non-Municipal Affair)

This project is a "public works" as defined in Sections 1720 through 1720.6 of the California Labor Code. The contractor will be required to comply with the prevailing wage, hour and labor requirements set forth in California Labor Code Sections 1720 through 1861 (collectively "State Wage, Hour and Labor Requirements").

In accordance with the Wage, Hour and Labor Requirements, the contractor will need to pay not less than the local prevailing rate of per diem wages and the local prevailing rates for holiday and overtime work, as determined by the Director of the California Department of Industrial Relations. Copies of the local prevailing rate of per diem wages and the general prevailing wage rates for holiday and overtime work in effect for this project are on file and available for your review from the City's Office of Equality Assurance at 408-535-8430.

See Sections 2-1.17 and 7-1.01a(3) of the Special Provisions for the specific State Wage, Hour and Labor Requirements applicable to this contract.

PROJECT LABOR AGREEMENT

This project is subject to the Project Labor Agreement ("PLA") entered between the City of San José and the Santa Clara and San Benito Counties Building & Construction Trades Council. The awarded Bidder will be required to agree to the terms of the agreement by signing Addendum A – Agreement to be Bound, of the PLA agreement, and submit at the time the contract is executed.

See Attachment 6 for a copy of the PLA including Addendum A.

CONTRACTOR'S LICENSE REQUIREMENTS

All prospective bidders are hereby cautioned that the Contractor's State License Law regulates contractor licensing matters. The Contractor, in its bid proposal, shall be required to disclose its license type, number, and expiration date.

Bidders must have a California contractor's license, Classification "A" to bid this project.

CONTRACTOR DIR REGISTRATION REQUIREMENTS

The contractor and all listed subcontractors must be registered with the Department of Industrial Relations in accordance with California Labor Code Sections 1725.5 and 1771.1. The City will not accept a bid in which the contractor or any of the listed subcontractors are not registered in accordance with Sections 1725.5 and 1771.1.

CITY OF SAN JOSE ENVIRONMENTAL SERVICES DEPARTMENT CIP PROCUREMENT (408) 535-8300 / PW_PROCUREMENT@SANJOSECA.GOV

See Section 2-1.17 of the Special Provisions for the "registration" requirements applicable to the contract.

BIDDER'S EXPERIENCE REQUIREMENT

Bidders are advised that there are special experience requirements for this contract. Please see Section 00 43 25 - Statement of Bidder's Experience for specific details.

NONDISCRIMINATION/NONPREFERENTIAL TREATMENT

The Nondiscrimination/Nonpreferential Treatment requirements of Chapter 4.08 of the San Jose Municipal Code apply to this project.

BOND REQUIREMENTS

Bidder's attention is directed to those provisions of the Specifications which require the contractor to whom the contract for the work is awarded, to file with the City Clerk at the time the contract is executed, a Contractor's Payment Bond and a Bond for Faithful Performance meeting all the requirements of the Specifications and approved by the City Attorney of the City of San José. Bonds shall be executed by a surety possessing a valid certificate of authority issued by the California Department of Insurance and shall name the City of San José as beneficiary. The Contractor's Faithful Performance Bond shall be for 100% of the contract amount. The Contractor's Payment Bond shall be for 100% of the contract amount.

INSURANCE REQUIREMENTS

The CITY will use an Owner Controlled Insurance Program (OCIP) for this Project. The Bidder must submit its bid "net" of its insurance costs for coverages provided under the OCIP Coverages and Other Coverages Provided by Owner as set forth in Specification Section 00 90 04 ATTACHMENT 4.

END OF SECTION



NOTICE OF INTENT TO AWARD CONTRACT

9850 - Yard Piping Improvements Phase 2 January 23, 2023

Dear Bidders,

On January 12, 2023, the City of San José opened bids for the above referenced project. Bid results for this project will be made available on Biddingo at www.Biddingo.com/sanjose.

This letter serves as notification that the Director of Public Works intends to recommend that the City Council award the contract to the apparent low bidder, Mountain Cascade, Inc. on or about April 11, 2023.

A bidder who wishes to protest this Notice of Intent may file a written protest with the procurement contact listed below within five (5) business days following the date this notice is issued. Protests must be received before 5:00pm on the fifth business day, and must include the following information:

- a. The protestor's identity and standing to submit a protest;
- b. The name of the City Project as listed on the Notice to Contractors;
- c. A complete statement of the legal and factual grounds for the protest, including specific references to relevant documents and legal authorities;
- d. Copies of any documents that support the protest; and
- e. A request for a responsibility hearing in accordance with San Jose Municipal Code Section 27.10.470 of this Chapter if the bidder is protesting a proposed determination that it is not a responsible bidder.

The City of San José appreciates your interest and effort in preparing and submitting a bid for this project. If you have any questions about the bid process or the City's decision to award, please contact the procurement contact listed below.

Lauren Profeit
CIP Procurement
Department of Public Works
200 E. Santa Clara St.
San Jose, CA 95113
lauren.profeit@sanjoseca.gov



Prj ID: 9850

Project Name: Yard Piping Improvements Phase 2

Project Manager: Feng, Tie

Bid Opening Date: January 12, 2023

Today's Date: January 23, 2023

BID RESULTS SUMMARY

Engineer's Estimate	\$12,200,000.00	
Bidder's Name	Base Bid	%Variance
Mountain Cascade, Inc., Livermore, CA Apparent Low Bidder	\$15,701,000.00 28,70%	28,70%
Michels Trenchless, Inc. , Brownsville, WI	\$16,855,430.00 38.16%	38.16%



January 27, 2023

Hand Delivered and Sent Via Email to Lauren.Profeit@sanjoseca.gov

Lauren Profeit

Department of Public Works

San Jose, CA 95113

Re: Bid Protest

Project: 9850 – Yard Piping Improvements Phase 2

Dear Ms. Profeit:

By way of brief introduction, my name is Andrew Simon and I represent Michels Trenchless, Inc., a member of the Michels Family of Companies (www.michels.us) as Associate General Counsel under a Professional Services Agreement. Michels Trenchless, Inc. ("Michels") submitted a bid for the 9850 – Yard Piping Improvements Phase 2 Project. Michels received a Notice of Intent to Award Contract to the apparent low bidder, Mountain Cascade, Inc. ("Mountain Cascade"), dated January 23, 2023. This document is attached as Exhibit A for reference. Please consider this letter Michels' protest of this Notice of Intent to Award Contract. Michels' legal and factual grounds for this protest, including specific references to relevant documents and legal authorities, are outlined herein.

As the second lowest (and only other) bidder for this Project, Michels has standing to protest this Notice of Intent to Award Contract pursuant to Section 27.10.250(B) of the City's Code of Ordinances as it has a reasonable possibility of being awarded this contract if the City sustains Michels' protest.

As outlined in the San Jose Municipal Code Section 27.10.540, the City is statutorily required to award this project to the lowest responsible and responsive bidder. <u>Mountain Cascade's proposal was not responsive</u> to the Bid Documents as it failed to meet the relevant experience and qualification requirements. Specifically, Mountain Cascade's proposal failed to identify: (1) Projects demonstrating the experience requirement identified in the Bid Documents and (2) any documentation demonstrating it satisfied the mandatory qualification requirements.

Mountain Cascade's Statement of Bidder's Experience Does Not Meet the Requirements as Clearly Stated in the Bid Documents

Project Bid Documents Section 00 43 25 state a bidder <u>must</u> provide a Statement of Bidder's Experience demonstrating a minimum of three (3) completed projects as references meeting four (4) listed requirements. The projects identified in the Statement of Bidder's Experience submitted by Mountain Cascade with its Proposal do not meet these mandatory requirements. The four (4) listed requirements





and Mountain Cascade's Statement of Bidder's Experience form are included in Exhibit A beginning on page 117.

Specifically, the following Projects in Mountain Cascade's Statement of Bidder's Experience do not meet the Bid Document requirements:

- Almaden Valley Inspection & Rehabilitation Project, San Jose, CA. This project is not completed yet, with pnly "Milestone 9B" being completed in January of 2023.
- 2. WPCF Primary Clarifier Conversion, Hayward, CA. Requirement No. 2 (b), requires each project involve the "repair of existing pipelines with a minimum diameter of 36-inches" (emphasis added). This project does not meet this requirement as it did not involve the rehabilitation of an existing pipeline. Instead, the project involved rehabilitating "rectangle structures" comprising drying beds.
- 3. <u>Digester Facilities Improvement Project, San Lorenzo, CA</u>. Requirement No. 2 (b), requires each project involve the "repair of <u>existing pipelines</u> with a minimum diameter of 36-inches" (emphasis added). The project does not meet this requirement as it did not involve the rehabilitation of an existing pipeline. Instead, the project involved rehabilitating "cylindrical structures" in a digester.

Once these three projects are removed from the Statement of Bidder's Experience, Mountain Cascade only has two remaining projects – less than the three (3) required in the Bid Documents. Additionally, neither of the two (2) remaining projects were performed within an operating wastewater treatment facility as mandated by Requirement No. 4 of the Bid Documents.

Note, Requirement No. 2(a) requires each project's "original contract value amount related to repair of existing pipelines was at least \$2.5 Million". It is impossible to determine if any of the projects identified in Mountain Cascade's Statement of Bidder's Experience satisfies this requirement as Mountain Cascade did not complete the required Statement of Bidder's Experience. The form submitted by Mountain Cascade replaced the column "Initial Contract Amount related to repair of existing pipelines" with a column entitled "Initial Contract Amount". This failure to provide the information required by this form from the Bid Documents alone makes Mountain Cascade's Proposal non-responsive. Notwithstanding this fact, Michels questions if the portion of each project "related to the repair of existing pipelines" exceeds \$2.5 Million for each project — especially the WPCF Primary Clarifier Conversion Project (original value \$2,993,824). It doesn't appear this project included any pipe rehabilitation, much less a scope of work exceeding \$2.5 Million.

For the reasons outlined above, Mountain Cascade's Proposal was clearly not responsive to this crucially important requirement of the Bid Documents.





Mountain Cascade Failed to Submit the Required Qualifications

Each Bidder was required to submit detailed information outlining the Bidder's qualifications related to each of the following:

- Carbon Fiber-Reinforced Polymer Rehabilitation (Technical Specification 33 01 30.73-8);
- Cured-in Place Pipe (CIPP) Rehabilitation (Technical Specification 33 01 30.71-5); and
- Geopolymer Mortar Rehabilitation Technical Specification 40 05 37.71-4).

Specifically, Section 1.05(B) of each of these qualifications states:

Contractor <u>must</u> meet or exceed the criteria contained in this section. Documentation, including on-site superintendent resumes, <u>must be submitted with the proposal</u> to fully demonstrate the minimum requirements as outlined in this section. Failure to provide the required information <u>may result in determining a CONTRACTOR to be non-responsive</u>. (Emphasis added)

A copy of these qualification requirements is attached as Exhibit B.

Michels' proposal includes detailed information demonstrating Michels meets or exceeds each of the requirements. Mountain Cascade failed to include any evidence whatsoever with its Proposal demonstrating it satisfied these qualifications. As such, Mountain Cascade's Proposal is non-responsive to the requirements outlined in the Bid Documents.

Additionally, since Mountain Cascade failed to provide any documentation regarding its qualifications, it is impossible to for Michels to opine regarding any specific deficiencies in Mountain Cascade's qualifications. However, Michels questions if Mountain Cascade meets the requirements – especially with regards to the Geopolymer Mortar Rehabilitation. We reserve the right to raise additional specific concerns if Mountain Cascade submitted any qualifications that were not included in the Notice of Intent to Award Contract or subsequently provides additional qualifications.

CONCLUSION: Mountain Cascade's Bid Should be Rejected as Non-Responsive and the Contract Should be Awarded to the Only Responsive & Responsible Bidder, Michels Trenchless, Inc.

Michels dedicated significant time and resources carefully reviewing the Bid Documents in order to submit a Proposal meeting all of the stated requirements, a bid which is both responsive and provided by an eminently responsible contractor.

As demonstrated above, Mountain Cascade's Proposal was without question non-responsive to the Bid Documents in numerous ways. It is a basic tenant of public procurement in California that the City of San Jose must award this contract to Michels as the lowest responsible and responsive bidder. For this reason, Michels protests the Notice of Intent to Award the Contract to Mountain Cascade. We request the City award this Project to Michels as the lowest responsible and responsive bidder consistent with its statutory obligations.



PO Box 128, 817 Main Street, Brownsville, WI 53006-0128 920.583.3132 | www.michels.us



I truly appreciate your consideration. Do not hesitate to reach out to me if I can provide any additional information.

Sincerely,

Andrew Simon Associate General Counsel Michels Corporation

cc: Hand Delivered and Sent Via Email to Matt.Cano@sanjoseca.gov

City of San Jose - Public Works Attn: Matt Cano, Public Works Director 200 E. Santa Clara St., Tower 5th Floor

San Jose, CA 95113

Hand Delivered and Sent Via Email to Kerrie.Romanow@sanjoseca.gov

City of San Jose

Attn: Kerrie Romanow, Environmental Services Director

200 E. Santa Clara St., 10th Floor Tower

San Jose, CA 95113-1905

Matt Smith – President, Michels Trenchless, Inc.

Lee Zubrod - Vice President, Michels Trenchless, Inc.

File



PO Box 128, 817 Main Street, Brownsville, WI 53006-0128 920.583.3132 | www.michels.us



NOTICE OF INTENT TO AWARD CONTRACT

9850 - Yard Piping Improvements Phase 2 January 23, 2023

Dear Bidders,

On January 12, 2023, the City of San José opened bids for the above referenced project. Bid results for this project will be made available on Biddingo at www.Biddingo.com/sanjose.

This letter serves as notification that the Director of Public Works intends to recommend that the City Council award the contract to the apparent low bidder, Mountain Cascade, Inc. on or about April 11, 2023.

A bidder who wishes to protest this Notice of Intent may file a written protest with the procurement contact listed below within five (5) business days following the date this notice is issued. Protests must be received before 5:00pm on the fifth business day, and must include the following information:

- a. The protestor's identity and standing to submit a protest;
- b. The name of the City Project as listed on the Notice to Contractors;
- c. A complete statement of the legal and factual grounds for the protest, including specific references to relevant documents and legal authorities;
- d. Copies of any documents that support the protest; and
- e. A request for a responsibility hearing in accordance with San Jose Municipal Code Section 27.10.470 of this Chapter if the bidder is protesting a proposed determination that it is not a responsible bidder.

The City of San José appreciates your interest and effort in preparing and submitting a bid for this project. If you have any questions about the bid process or the City's decision to award, please contact the procurement contact listed below.

Lauren Profeit CIP Procurement Department of Public Works 200 E. Santa Clara St. San Jose, CA 95113 lauren.profeit@sanjoseca.gov



Prj ID: 9850

Project Name: Yard Piping Improvements Phase 2

Project Manager: Feng, Tie

Bid Opening Date: January 12, 2023 Today's Date: January 23, 2023

BID RESULTS SUMMARY

Engineer's Estimate	\$12,200,000.00	
Bidder's Name	Base Bid	%Variance
Mountain Cascade, Inc., Livermore, CA Apparent Low Bidder	\$15,701,000.00	28.70%
Michels Trenchless, Inc. , Brownsville, WI	\$16,855,430.00	38.16%

SECTION 00 42 11 PROPOSAL TO CITY OF SAN JOSE

FOR

9850 - YARD PIPING IMPROVEMENTS PHASE 2 PROJECT

Name of Bidder: Michels Trei	nchiess, inc.		
Contact Information of Bidder:	Lee A. Zubrod	920-269-8758	Izubrod@michels.us
	Submitter Name	Phone Number	Email

The representations herein are made under penalty of perjury.

To: The City of San José, State of California

The undersigned, as bidder, declares that the only person or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm or corporation; that the bidder has thoroughly read and examined and has full knowledge of and understands all the provisions and contents of this proposal and the documents which must be attached hereto, the Plans and Specifications approved by the Director of Environmental Services on November 4, 2022, entitled 9850 - Yard Piping Improvements Phase 2 and approved for advertising and opening by the Director of Public Works on November 9, 2022, on file in the office of the Director of Environmental Services of the City of San José in City Hall, located at the San José-Santa Clara Regional Wastewater Facility, 700 Los Esteros Road, San Jose CA 95134; that the bidder has thoroughly examined said Plans and Specifications which are on file in the office of the Director of Public Works, and that the bidder has full knowledge of and understands said Plans and Specifications and the requirements thereof; and that the bidder has further read and understands, and has knowledge of the contents of any and all addenda to said Plans and Specifications on file; and that the bidder proposes and agrees, if this proposal is accepted, that the bidder will contract with the City of San José, in the form of the copy of the contract on file in the office of the Director of Environmental Services to do all the work and furnish all materials specified or referred to in the contract, in the manner and time therein prescribed, and according to the requirements of the City or Director of Environmental Services as therein set forth, to furnish the contract, bonds and insurance specified in the Specifications, and to do all other things required of the Contractor by the contract; and will take in full payment therefor the following price or unit prices as shown in the Schedule of Quantities on the next page(s).

If the bidder or other interested persons is a <u>corporation</u>, <u>state legal name of corporation</u>, also names of the <u>President</u>, <u>Secretary</u>, <u>Treasurer</u>, and the <u>Manager thereof</u>; if a partnership, state the name of the partnership, if one exists, also the names of all the partners comprising the partnership; if any of the partners are individuals, state the first and last name of every individual in full, if any of the partners are corporations, state for each such corporation, the information required above of corporations; if any of the partners are partnerships, state for each such partnership the information required above of partners; if the bidder or other interested person is a joint-venture, state the name of the joint venture, also names of all joint venturers comprising the joint venture; if any of the joint venturers are individuals, state the first and last name of every individual comprising the joint venture; if any of the joint venturers are corporations, state for each corporation the information required above of corporations; if any of the joint venturers are partnerships, state for each such partnership, the information required above of partners; if bidder or other interested persons is an individual, state first and last names in full.

If bidder is an individual, the bidder's signature shall be placed below; if bidder is an individual, doing business under a fictitious name, the name of the individual followed by the words "doing business under (insert the fictitious name)" shall be set forth above, together with the signature of the individual; if bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers of the corporation, authorized to sign contracts on behalf of the corporation, the corporate title; that is Vice-President, Secretary, etc., should be placed below the name of the officer and the corporate seal affixed; if bidder is a partnership, the legal name of the partnership, if one exists, shall be set forth above, together with the signature of the partner or partners authorize to sign contracts on behalf of the partnership; if any of the partners are corporations, execution for such partners shall be accomplished in accordance with the requirements set forth above for corporations; if any of the partners are partnerships, execution for

such partners shall be accomplished in accordance with the requirements set forth above for partnership; if bidder is a joint-venture, the legal name of the joint venture, if one exists, shall be set forth above for partnerships. If signature is by an agent other than an officer of a corporation, or member of a partnership or a joint venture, a Power of Attorney must be on file with the City Clerk prior to opening bids or submitted with the bid; otherwise, the bid may, at the City's option, be disregarded as non-responsive.

If this proposal shall be accepted and the undersigned shall fail to contract, and to give the Contractor's Bond For Faithful Performance and the Contractor's Payment Bond required by the specifications and contract and by law, and to provide all insurance as required by said contract, within eight (8) days after the bidder has received notice from the City of San José, the City may, at its option, determine that the bidder has abandoned his/her contract, and thereupon this proposal and the acceptance thereof shall be null and void, and the forfeiture of such security accompanying this proposal shall operate and the same shall be the property of the City of San José.

In accordance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding on contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board. Signing this Proposal on the signature portion thereof shall constitute signature of this Statement.

Accompanying this proposal are the following documents completely filled in by the bidder and the same are incorporated herein by reference;

- 1. Cash, a cashier's check or a certified check made payable to City, or a bidder's bond executed by an admitted surety insurer naming the City as beneficiary, in an amount equal to at least ten percent (10%) of the total amount bid including all alternatives.
- 2. A "List of Subcontractors".
- 3. A "Statement of Bidder's Experience".

City may at its option, request additional supplemental information after bid opening.

Bidder understands that the City reserves the right to reject any or all bids and to waive any informalities in the bidding.

The undersigned, as bidder, declares under penalty of perjury as follows.

- 1. In listing subcontractors in this bid, the bidder did not discriminate or give any preference to any person or firm based on race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity, or national origin. The bidder understands that any such discrimination or preference violates Chapter 4.08 of the Municipal Code.
- 2. Before submitting its bid, (a) the bidder affirmatively checked to confirm it had all the procurement documents including addenda, notices, requests for information and the City's response to any requests for information, (b) the bidder reviewed such procurement documents and is knowledgeable about their contents and (c) the bid is based on and incorporates all such procurement documents.

Execution of the Non-Collusion Affidavit constitutes execution of this Bid Proposal including the above statement of nondiscrimination and, with the exception of the Bidder's Bond, no other signatures will be required.

NONCOLLUSION AFFIDAVIT

Project Title:9850 - YARD PIPING IMPROVEMENT	S PHASE 2	2	
Lee A. Zubrod	, being	first duly sw	orn, deposes and says that he/she is
the party making the foregoing bid that the bid is not made partnership, company, association, organization, or corpora bidder has not directly or indirectly induced or solicited any or indirectly colluded, conspired, connived, or agreed with shall refrain from bidding; that the bidder has not in any macommunication or conference with anyone to fix the bid profit, or cost element of the bid price, or of that of any oth awarding the contract of anyone interested in the proposed further, that the bidder has not, directly or indirectly, submit contents thereof, or divulged information or data relative the partnership, company, association, organization, bid deposit collusive or sham bid. In accordance with Title 23, United States Code, Section he/she has not, either directly or indirectly, entered into any any action in restraint of free competitive bidding in connectable certification may subject certifier to criminal prosecut. The undersigned declares under penalty of perjuraccompanying documents are true and correct.	tion; that the vother bidder any bidder anner, directive of the best bidder, or contract; the ditted his or particle, or to a series of 112, the vote agreement agreement tion.	ne bid is genu der to put in a or anyone elsetly or indirec- idder or any or or to secure an at all statement her bid price and, and will rany member of bidder hereby t, participated his contract.	aine and not collusive or sham; that the a false or sham bid, and has not directly se to put in a sham bid, or that anyone stly, sought by agreement, other bidder, or to fix any overhead, my advantage against the public body ents contained in the bid are true; and or any breakdown thereof, or the not pay, any fee to any corporation, or agent thereof the effectuate a states, under penalty of perjury, that d in any collusion, or otherwise taken Bidders are cautioned that making a
ilalan	City Busine	ss Lic. No.:	To be obtained if apparent low
Executed on 19123	Expiration I	Date:	To be obtained if apparent low
	State Contra	actor Lic. No.:	1095069
Mishala Translatana Ina	Expiration l	Date:	8/31/2024
Michels Trenchless, Inc. Legal Company Name	Classification	on:	Class A - General Engineering C34 - Pipeline
	DIR Registi	ration Number:	100964121
	Expiration l	Date:	6/30/2023
Corporation Indicate Type of Entity: Sole Proprietorship,	Federal I. D). No.:	85-2783927
Partnership (General/Limited Partners), Corporation, Joint Venture, etc.	Address:	817 Main S	Street, PO Box 128
		Brownsville	e, WI 53006
	Telephone:		
Dy. Tille Loc A. Zuhand. Vice Describert. Debet Marine Occasions	Email:		
Title: Lee A. Zubrod - Vice President, Rehabilitation Operations			

BID SCHEDULE OF QUANTITIES

for 9850 – YARD PIPING IMPROVEMENTS PHASE 2

ltem	Spec. Section	Description	Unit	Quantity	Unit Price	Extension
Base E	Bid Items		I	1		
1	All	Completion of all Work included as part of the Contract Documents, except as specified under Items 2 through 18, for 9850–Yard Piping Improvements–Phase 2 Project.	LS	1	\$1,447,000 F	*1,497,000·00
2	31 23 11	Cost for providing all shoring and bracing on all Bid Items below including but not limited to that as required by Sections 6700-6708 of the Labor Code.	LS	1	\$25,000·co	\$ 25,000.00
3	01 29 00 Part 1.09 and 1.10	Mobilization/Demobilization.	LS	1	\$1,037,000	1,037,000.00
4	01 11 00 Part 1.04B.1	Rehabilitation of the 120" Raw Sewage.	LS	1	\$1,547,000.	11.037,000.00 \$1,547,000.∞
5	01 11 00 Part 1.04B.2	Rehabilitation of the 84" Primary Effluent Pipe.	LS		4 1 9 1 1 100 ·CC	
6	01 11 00 Part 1.04B.3	Rehabilitation of the 84" Secondary Effluent Pipe.	LS	1	\$ 565,430,00	
7	01 11 00 Part 1.04B.4 and not included in Bid Item 8 and 9	Rehabilitation of the 48" Santa Clara Force Main.	LS	1	\$1,907,000.00	\$1,907,000.00
8	01 11 00 Part 1.04B.4.b	All work associated with the SCFM Temporary Bypass Piping System and the Lamplighter Force Main Temporary Bypass Piping System.	LS	1	4 1,938,000.	p 11,398,000:∞
9	01 11 00 Part 1.04B.4.d and Part 1.04B.4.e	All work associated with the furnishing and installation of the bulkhead gate for the 66" RS at the Milpitas Structure and the bulkhead gate and guide system for the 84" RS at the Santa Clara Influent Structure 1.	LS	1	# 297,000.00	
10	01 11 00 Part 1.04B.5	Rehabilitation of the 102" Nitrification Influent Pipe and the Nitrification Influent Junction Structure.	LS	1		1,684,000 15

Item	Spec. Section	Description	Unit	Quantity	Unit Price	Extension	
11	01 11 00 Part 1.04B.6	Rehabilitation of the 102/96/78/66" Raw Sewage Pipe.	LS	1 \$	3,600,000.	\$3,603,000°	0
12	01 11 00 Part 1.04B.7	Modifications/Improvements to the Effluent Junction Structure 1.	LS	1 \$	786,000°9	\$1 286,000.0	d
13	01 11 00 Part 1.04B.7.h	Reinforcement of Existing Wood Closure on Effluent Junction Structure 1	LS	1 \$	W. m.00		0
14	01 11 00 Part 1.04B.8	Modifications/Improvements to the Fish Screening Structure.	LS	1	અન્યાં જા	\$ 244,000 °	30
15	01 11 00 Part 1.04B.9	Modifications/Improvements to the No.3 Water Wet Well.	LS	1 \$	324,000.00	#334,000·	00
16	01 11 00 Part 1.04B.10	Allowance 1 – Maintenance/repair of the existing Settled Sewage (SES) Reroute System.	Force Account	1	\$300,000	\$300,000	
17	01 11 00 Part 1.04B.11	Allowance 2 – Formal partnering.	Force Account	1	\$15,000	\$15,000	
18	01 11 00 Part 1.04B.12	Allowance 3 – Contractor Assistance for 24" and 30" WTR3 Water Pipe Condition Assessment	Force Account	1	\$200,000	\$200,000	
		TOTAL BAS	E BID AMO	UNT: \$\frac{16}{2}	,855,4	130.00	

END OF SECTION

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SECTION 00 42 12 BIDDER'S BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That we,	Michels Tr	enchless, Inc.	as PRINCIPAL, and
	Western Surety Company	, a corporation duly	organized under the laws of the
State of _	SD	and duly licensed to becom	e sole surety on bonds required or
			bound unto the City of San José
(hereinaft	ter called the "City"), in the	penal sum of TEN PERC	CENT (10%) OF THE TOTAL
AGGRE	GATE AMOUNT OF THE BI	D (including all bid alternate	s) of the Principal above named,
submitted	by said Principal to the City	of San José, for the work des	scribed below; for the payment of
which sur	m in lawful money of the United	d States, well and truly to be n	nade, we bind ourselves, our heirs,
executors	, administrators and successors,	jointly and severally, firmly	by these presents. In no case shall
the liabil	ity of the Surety hereunder e	xceed the sum of TEN PER	CENT (10%) OF THE TOTAL
AGGREG	GATE AMOUNT OF THE BID	, including all bid alternates.	

THE CONDITION OF THIS OBLIGATION IS SUCH,

That whereas the Principal has submitted the above mentioned bid to the City of San José, for certain construction specifically described as follows, for which bids are to be opened in the Office of the Director of Public Works, City of San José, City Hall, 200 E. Santa Clara St., 5th Floor, San Jose, CA 95113-1905, for

9850 - YARD PIPING IMPROVEMENTS PHASE 2

NOW, THEREFORE, if the aforesaid Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to Principal for signature, enters into a written contract, in the prescribed forms, in accordance with the bid, and files a Faithful Performance Bond and a Contractor's Payment Bond, and files the required insurance policies with the City, all as required by the specifications and the contract or by law, then the obligation shall be null and void; otherwise it shall be and remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

In the event suit is brought upon this bond by the Obligee and judgement is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS V	VHEREOF, we have	hereunto set our	hands on this	12th day of
January , 2	0 <u>23</u>			
PRINCIPAL	CORPORIES TRENCHES	SURE	ГҮ	
Michels Trenchless, Legal Company Na	Incl. Och DELAWARE	Legal C	Surety Company Company Name Corporate Seal)	
Title VICE I	RESIDENT	Title	Heather R. Goedtel	
		(Attach	Notarization Ackn	owledgement)
Business Address _ 817 Main Street Brownsville, WI 530	_	8400 No	ss Address ormandale Lake Blvd ngton, MN 55437	., Suite 1700

END OF SECTION

NOTARY ACKNOWLEDGEMENT (SURETY)

Use this form or substantive equivalent

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

trumumess, accuracy, or variety or that c	locument.	
State of Catalogue Minnesota County of Hennepin	_)	
On January 12, 2023 , before me, _	Nicole Catherine Langer, Notary Public	, personally
appeared Heather R. Goedtel, Attorne	ey-in-Fact , who proved to	me on the basis of
satisfactory evidence to be the person(s) v	whose name(s) is/are subscribed to the within i	nstrument and
acknowledged to me that he/she/they exec	cuted the same in his/her/their authorized capac	city(ies), and that
by his/her/their signature(s) on the instrum	nent the person(s), or the entity upon behalf of	which the
person(s) acted, executed the instrument.		
I certify under the PENALTY OF PERJU paragraph is true and correct.	JRY under the laws of the State of California t Minnesota	hat the foregoing
WITNESS my hand and official seal.	My C	E CATHERINE LANGER Notary Public ate of Minnesota Commission Expires anuary 31, 2028
Signature	(Seal)	

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APPROVED TO FORM: 10/27/13

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal herein affixed hereby make, constitute and appoint

Nicole Langer, Laurie Pflug, Brian D. Carpenter, Jessica Hoff, Craig Olmstead, Trisha Kasper, Blake S. Bohlig, Heather R. Goedtel, Kelly Nicole Enghauser, Megan Nicole Scott, Michelle Halter, Individually—

of Bloomington, MN, its true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 14th day of February, 2022.



WESTERN SURETY COMPANY

Paul T. Bruflat, Vice President

State of South Dakota County of Minnehaha } s

On this 14th day of February, 2022, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the scal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

March 2, 2026





CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 12th day of January, 2023



WESTERN SURETY COMPANY



Form F4280-7-2012

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

Authorizing By-Law

ADOPTED BY THE SHAREHOLDERS OF WESTERN SURETY COMPANY

This Power of Attorney is made and executed pursuant to and by authority of the following By-Law duly adopted by the shareholders of the Company.

Section 7. All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, and Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile.

SECTION 00 43 25 STATEMENT OF BIDDER'S EXPERIENCE

The bidder must provide a minimum of three (3) completed projects as references. The three (3) references must demonstrate the bidder's experience and ability to complete the construction work as required under the terms of the Contract. The three (3) completed projects used as references must meet the following requirements

- Requirement No. 1: The bidder must have been the general contractor on each of the projects.
- Requirement No. 2: The projects must have involved construction substantially similar to the construction for this Project. "Substantially similar" means the following:
 - a) The original contract amount related to repair of existing pipelines was at least \$2.5 Million; and
 - b) The projects must have involved repair of existing pipelines with a minimum diameter of 36-inches utilizing any of the following methods: cured-in-place pipe rehabilitation, geopolymer mortar rehabilitation, carbon fiber-reinforced rehabilitation, concrete pipe crown repair, or epoxy coating of inside diameter of pipeline.
- Requirement No. 3: The substantial completion date for each project must have been after January 2010.
- Requirement No. 4: The bidder must have completed construction of at least two (2) of the projects at an operating wastewater treatment facility.

Project Name/Location	Owner Name and Contact Information	Scope of Work	General Contracto r (Y/N)?	Diameter of existing pipelines (Inches)	Methods used for repair of existing pipelines?	Completed within an operating wastewater treatment facility (Y/N)?	Initial Contract Amount related to repair of existing pipelines	Substantial Completion Date
Yard Piping Improvements Phase 1 San Jose, CA	City of San Jose Tie Feng 408-635-4025 tie.feng@sanjoseca.gov	Pipeline repair, Gate repair, structure repair, Mechanical Installation	Yes X	78" & 96"	CIPP PDCCR EPOXY	Yes X	\$ 3,096,903.00	01/19/2022
Rehabilitation	City of San Jose Tie Feng 408-635-4025 tie.feng@sanjoseca.gov	Pipeline repair, Gate repair, structure repair, Mechanical installation	Yes X	96" & 87"x136"	CIPP PDCCR EPOXY	Yes X	\$ 4,796,571.00	10/15/2020
North Area Interceptor Phase 9	Metropolitan Council Richard Hjelle 651-602-6055 richard.hjelle@ metr.state.mn.us	Pipeline repair, bypass pumping	Yes X	72" & 96"	CIPP	Yes No X	\$ 9,889,235.00	06/18/2018

Interceptor Sanitary Sewer No. 500 Phase One	Lucas County, OH Nate inkrott 419-213-2926 ninkrott@ co.lucas.oh.us	Pipeline repair, bypass pumping	Yes No	X	90"	Geopolymer mortar	Yes No	×	\$ 2,535,137.00	10/15/2018

END OF SECTION

LIST OF SUBCONTRACTORS **SECTION 00 43 36**

Instructions:

- contractor's license number, Department of Industrial Relations (DIR) Registration number, location of business, and a brief description of Complete this form by providing the following information clearly and accurately: the name of the Subcontractor, its California state the work it will perform.
- The designation of Subcontractors is required as described in Section 2-1.15A of the City of San Jose Standard Specifications, July 1992. તં
- 3. Bidder's have 24 hours from the time of the Bid Opening to provide any corrections to the state subcontractor license numbers and/or the DIR Registration Number that were submitted with the original proposal.

PORTION (DESCRIPTION) OF WORK	Civil/Mechanical work, PDCCR	CRFP Installation	Bypass Installation	Line Stop		
LOCATION OR PLACE OF BUSINESS	San Francisco, CA	Anaheim, CA	Sacramento, CA	Murietta, CA		
DIR REGISTRATION NUMBER	1000002551	1000054190	1000365932	PW-LR-1000863274		
STATE SUBCONTRACTO R LICENSE NUMBER	715324	814569	855677	1086915		
NAME OF SUBCONTRACTOR	JMB Construction, Inc.	Structural Preservation Systems	Multiple Pump Services	Rangeline Tapping Services		

SUBCONTRACTORS REVISED 09/029/2016

CONSENT RESOLUTION OF THE DIRECTORS OF MICHELS TRENCHLESS, INC.

December 19, 2022

The undersigned, being the Directors of MICHELS TRENCHLESS, INC., a Delaware corporation (the "Corporation"), pursuant to Section 141(f) of the General Corporation Law of the State of Delaware, does hereby consent to the following actions:

ELECTION OF OFFICERS

RESOLVED: that the following are elected as the officers of the Corporation until their respective successors have been elected and qualified, or until his or her death, resignation, or removal:

Matt Smith President Jeffrey S. Mueller Senior Vice President Lee Zubrod Vice President, Rehabilitation Operations Kurt Myhre Vice President, HDD Operations Vice President, Trenchless Preconstruction Services Craig Vandaelle Senior Manager, Trenchless Business Administration Steven Kenny Scott Odell Senior Manager, Rehabilitation Operations David Ebner Senior Manager, Rehabilitation Operations Andrew Simon Treasurer Andrew Simon Secretary Genette Zubrod Assistant Secretary Paul Mallory Assistant Secretary Sam Zandofsky Assistant Secretary Paul Petrykowski **Assistant Secretary** Jili La Ronge **Assistant Secretary** Eric DeGroot Assistant Secretary **Amy Diels** Assistant Secretary Alissa DeWar Assistant Secretary

Executed in Lomira, Wisconsin as of the date above written.

Directors:

Pat Herzog

Docusigned by:

Jack Westerman

Docusigned by:

Docusigned by:

Docusigned by:

Docusigned by:







www.Michels.us

TRENCHLESS CONSTRUCTION

Building & maintaining the world under your feet

Being the premier trenchless company in North America and internationally requires a balance of experience and enthusiasm — and an insatiable desire to set the standard for complete infrastructure installation and rehabilitation with minimal surface disruptions.

We have been performing trenchless construction for decades and it shows. Our leaders, managers and field personnel have amassed an extensive resume of successful projects. Regardless of whether we are working close to home or thousands of miles away, our trained crews deliver consistent quality, safety and performance.

Rehabilitation

CURED-IN-PLACE PIPE

Cured-in-place pipe lining (CIPP) is an established, yet evolving technique for installing a fully structural pipe within an existing pipe to add an additional 50 years to its design life. Resin-impregnated liners are inserted into a pipe and cured by water, steam or ultraviolet (UV) light.

- Sanitary & storm sewers
- Potable water pipes (NSF 61-approved)

· Force mains

· Laterals and culverts

· Pressure pipes

Short liners

SPRAY-IN-PLACE PIPE

Spray-in-place pipe lining (SIPP) is a versatile method for extending the life. of deteriorating pipes and structures of many shapes and sizes. Depending on the situation, cement mortar, epoxies, geopolymers and polyureas are applied by mechanical spinning or hand spraying. Suitable for brick, concrete, and corrugated and smooth metal surfaces.

- Utility manholes
- · Raw water pipes

Sewer mains

- Culverts
- Potable water pipes (NSF 61-approved)
 Irregular shapes and bends

SLIPLINING

Sliplining is a long-standing, fully structural way to rehabilitate pipes by creating a pipe within a pipe. A new sewer pipe is pushed or pulled into an existing, deteriorating pipe. Then, the annular space is chemically filled and the ends are sealed.

- Sanitary sewers
- Laterals

Storm sewers

Culverts

PIPE BURSTING

With pipe bursting, an expander is hydraulically guided through an existing pipe, breaking it and allowing for a new, larger pipe to get pulled into its place. One of the most unique elements of pipe bursting is its ability for inline expansion without removal or excavation.

· Cast iron pipe

· Steel pipe

· HDPE pipe

CHEMICAL GROUTING

Installing chemical grout in voids and soil outside of pipes and structures stabilizes pipes and eliminates infiltration. When used in conjunction with other pipe rehabilitation methods, it reduces inflow and infiltration rather than relocating it.

· Sewer mains

· Utility manholes

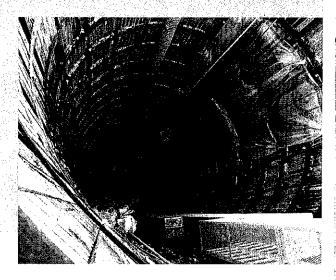
Laterals

CLOSED-CIRCUIT TELEVISION & SEWER CLEANING

Routine sewer cleaning and closed-circuit TV (CCTV) inspections are part of everyday sewer maintenance. Wastewater recycling sewer cleaning trucks pressure wash pipes to prepare for inspection and rehab processes.

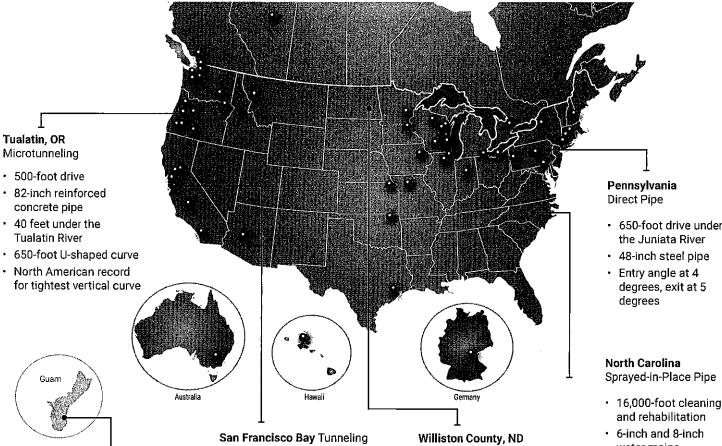








Local. Everywhere.



- Guam Cured-in-Place Pipe
- · 43,984 linear feet sanitary sewers
- 18- to 42-inch liners
- · 141 utility manholes
- · Trenchless Technology Project of the Year

- · 5-mile tunnel under San Francisco Bay
- 12-foot concrete-lined tunnel
- 9-foot steel pipeline installed inside tunnel
- · Tunnel Achievement Award for Project of Excellence
- Horizontal Directional Drilling
- · 13,247-foot drill
- 20-inch steel pipe
- 268 feet below bottom of lake
- Pilot hole intersect method
- Trenchless Technology Project of the Year

- · 650-foot drive under the Juniata River
- · 48-inch steel pipe
- degrees, exit at 5

Sprayed-in-Place Pipe

- and rehabilitation
- water mains
- · 34,000 feet of temporary bypass piping

An overview of the collective strength of the MICHELS* Family of Companies



8,000 people strong



17,000 pieces of equipment

1959

founded in

50+ offices globally



ENR's Top 400 Contractor's List

MICHELS® TRENCHLESS, INC.

www.Michels.us



City of San Jose

January 12th, 2023

RE: Installed CIPP System Failure

Michels Trenchless, Inc. confirms that we have not had any projects where the CIPP system intended for this project, hot-water cure Techliner, failed, did not perform as intended, or was abandoned prior to the completion of the originally contracted scope of work.

Sincerely,

Lee A. Zubrod Vice President Michels Trenchless, Inc.



Yard Piping Improvements Project Phase 2 - San Jose, CA

RE: Ancillary equipment documentation - CIPP

Michels confirms that we will provide and maintain all ancillary equipment required for the installation of CIPP liners on this project. Anticipated equipment to be provided is listed below.

International 4300 CCTV Truck

Kenworth/Rush Overland Hot Water Unit

International/Camel 7600 Jetter Vac/Combo

International 7500 Refrigerator Truck

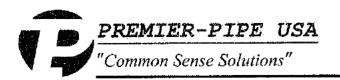
Interstate 20' Enclosed Trailer

Ford F-250 Crew Cab

Ford F-150 Crew Cab

Ford F-450 Crew Cab Stake Bed

Godwin CD150 Pump



January 12th, 2023

To Whom It May Concern:

This letter certifies that Michels Trenchless, Inc. is a certified licensed and trained installer of the Premier-Pipe process (a CIPP process) as certified by Premier-Pipe USA. Michels Trenchless, Inc. has been a trained and certified installer since 2002 with documented footage installed in the United States in excess of 7,500,000 linear feet. J.W.M. Environmental, Inc. is the Licensor of Premier-Pipe USA and Premier-Pipe Canada. The Premier-Pipe group of licensees has successfully installed over 25,000,000 linear feet.

J.W.M. Environmental, Inc. certifies that all CIPP liners installed by Michels Trenchless, Inc. meets or exceeds the recognized organizational standards of ASTM F1216 latest edition.

If you have any questions, please contact me at 612-385-4101.

Sincerely,

J.W.M. Environmental, Inc. / Premier-Pipe USA

James Mortell, Jr. President

2020	Pipe Re		2019	2015	2019	2019	2019	2010	202	2017	3102	2015	Pipe Re		2018	2018	2018	2018	2018	3102	2017	2018	2018	2018	2017	2017	Pipe Z	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2016		Dine Re		Year	Partia	Miche
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Reggie Martinka			Helena Choi	Miquel Quiroz	Kevin Brown	Kevin Brown	Josh Sanderson	Jesuit Vyantei	Kristen Lundeen	Sieve Jenson	Craig Johnson	Susan Lehr			Theron Holloway	Charles Elliot	Geoff Conley	Kim Wilson	Kirk Johnson	Apama Knanal	Matt Wagner	Thomas Eeg	Gary Luebben	Owen Dean	Ryan Cramer	Betsy Wollen		Ben Holz	Jordan Bleasdale	ll Lori Nishida	Hai Ho	Katherine Hayden	Justin Costa	log Lepack	Mark O'Leary	Jennifer Anhorn	Joanne Robinson	Joe Dioslaki	John Fahmey	Beth Tyczkowski	Mike Spoier	Bob Olson	Jody Jacoby	Celeste Jantz	Jeff Geislinger				Contact		
414-286-3314			408-635-4010	707-693-0289	916-574-0365	916-574-0365	503-577-0994	541-826-2650	262-236-2937	367 336 3037	507-286-7536	708-598-7855			808-690-4184	707-354-0944	831-429-8111	559-274-0300	530-246-4292	425-587-3844	425-777-7320	262-636-9121	320-764-2006	630-682-4700	630-897-4651	218-740-4794		920-924-4350	808-864-6225	808-768-7208	415-822-3700	415-259-2949	775-852-7283	775-786-2677	425-202-3606	541-826-2659	503-986-2665	973-812-0333	608-267-1197	920-983-9040	708-331-6700	262-246-0600	651-602-1000	414-286-3309	320-764-2006				Phone		
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	CIPP	CIPP	CIPP	CIPP	CIPP			CIPP	CIPP	CIPP	CIPP-UV	CIPP	CIPP	CIPP	CIPP	CIPP	CIPP		CIPP	CIPP	CJPP	CIPP/Geo	CIPP	CIPP	CIPP	CIPP	CIPP-UV	CIPP	CIPP-UV	CIPP	9	ממפ			•
			\$ 445,960	\$ 336,885				\$ 1,424,979	\$ 597,551	\$ 3,096,903	\$ 323,510		\$ 61,855 City	\$ 969,777	\$ 1,442,082 City	\$ 334,206	\$ 2,806,093		\$ 114,190	\$ 1,141,193	\$ 148,055	\$ 1,625,717	\$ 135,350		\$ 733,803		\$ 1,610,475 City	\$ 4,707,485	\$ 624,988 City	\$ 284,505	A COMPANY	Value			
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	Kevin Brown	Kevin Brown	Kevin Brown	Kevin Brown	Joel Zeni			Kevin Brown	Rudy Portugal	Tie Feng	Josh Sanderson	r Scott Freitas	Lyte Bell	Bryn Wildman	Sarah Greene	James Roberts	Kimberly Sanders		Kevin Brown	Kevin Brown	Miguel Quimu	Brittney McVay	Claire Damelio	Danny Warren	Kevin Brown	Peter Brown	Mark Nakagawara	Tsuyoshi Fukuda	David Hutton	Logan Crull	College	Contact			
	916-574-0365	916-574-0365	916-574-0365	916-574-0365	541-510-0505			916-574-0365	925-875-2251	408-635-4025	503-577-0994	541-883-5538	503-390-3700	630-420-6720	763-767-6479	507-446-5523	651-602-4616		916-574-0365	916-574-0365	707-693-0289	775-355-0420	707-742-6000	916-757-6400	916-574-0365	541-774-2617	206-684-5068	617-788-2560	612-255-8747	920-960-9585	111010	कार्यक			
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TRAINING & CERTIFICATIONS

Premier Pipe Certified Installer Confined Space Entry Certified OSHA 30-Hour CPR/First Aid

INDUSTRY INVOLVEMENT

Member of the American Institute of Construction - Associate

EDUCATION

2012 University of Wisconsin–Stout | Menomonie, WI

BS, Construction

William S. Grams

Senior Project Manager

15 years of experience • Office-Brownsville, WI

2022 – Present: Senior Project Manager | Michels Trenchless, Inc. | Brownsville, WI

Responsible for estimating, planning and managing construction of trenchless projects. Assist with scheduling crews, materials, equipment, and subcontractors. Accountable for tracking job statistics while reviewing and assessing job contracts. Day-to-day duties include: production scheduling, cost forecasting, project controls, invoicing, safety and environmental compliance, engineering liaison, and quality assurance and control.

2013 – 2022: **Construction Manager** | **Michels Pipe Services** | **Brownsville, WI** Responsibilities include client/contractor coordination, submittals, coordinating equipment, material orders, scheduling and supervising labor, and ensuring that the projects are completed to the satisfaction of the client within budget and on time.

2012: Estimator | Northland Buildings | Eau Claire, WI

Responsible for construction takeoffs, material ordering, and designing agricultural and commercial buildings using AutoCAD.

2012: Engineering Technician I | American Engineering Testing | Chippewa Falls. Wi

Performed a variety of construction and engineering inspections and testing including concrete inspection, aggregate testing, nuclear density testing, and geotechnical soil borings.

2011: Project Management Intern | Minneapolis, MN

Primary duties included assisting estimators, construction takeoffs, scheduling labor, updating project financials, ordering materials, and writing change orders.

2009 – 2012: **Truss Designer** | **Midwest Manufacturing** | **Eau Claire, WI** Designed residential, commercial, and agricultural roof and floor truss systems. Worked with associates and customers to solve design issues, and scheduled material delivery.

PROJECT PROFILES

Metropolitan Council / S.M. Hentges - 2017 | Blue Lake Interceptor Rehabilitation | Shakopee, MN

Project Manager/Superintendent for the CIPP rehabilitation of approx. 3,457 LF of 72" sanitary sewer. Project required (6) 30">= individual installations utilizing hot water cure.

Metropolitan Council / Geislinger Construction - 2017 | Bloomington Interceptor Rehabilitation | Bloomington, MN

Project Manager/Superintendent for the CIPP rehabilitation of approx. 6,514 LF of 15"-48" sanitary sewer (3,808' x 30+). Project required (10) 30">= individual installations utilizing hot water cure.

Minnesota Department of Transportation - 2017 | SP: 8827-271 - Culvert Repairs | Luverne, MN

Project Manager/Superintendent for the CIPP rehabilitation of approx. 3,133 LF of 15"-54" storm sewer (185' x 30>=). Project required (1) 30">= individual installations utilizing air/steam cure.

City of Milwaukee - 2017 | 18-1-2016 COMBINED SEWER MAINS REPAIR & LINING AND MANHOLE REPAIR & LINING | Milwaukee, WI Superintendent for the CIPP rehabilitation of 3,981 LF of 60" sanitary sewer. Project required (5) 30">= individual installations utilizing hot water cure.



City of Duluth / Western Lake Superior Sanitary District - 2016 | Cured-In-Place (CIPP) Rehabilitation of Sanitary Sewers In Superior Street 4th West to 4th East | Duluth, MN

Project Manager/Superintendent for the CIPP rehabilitation of approx. 4,927 LF of 24"-36" sanitary sewer(1,244' x 30"+). Project required (7) 30">= individual installations utilizing hot water cure.

Manitowoc County Highway Department - 2016 | 60" CIPP Culvert Rehabilitation | Manitowoc, WI

Project Manager/Superintendent for the CIPP rehabilitation of approx. 180 LF of 60" storm sewer. Project required (1) 30">= individual installations utilizing air/steam cure.

Metropolitan Council / Minger - 2016 | 1-RV-430 Repair | Roseville, MN Project Manager/Superintendent for the CIPP rehabilitation of approx. 540 LF of 36" sanitary sewer. Project required (1) 30">= individual installations utilizing hot water cure.

City of St. Paul - 2016 | Chatsworth/Jackson Sewer Lining | St. Paul, MN Project Manager/Superintendent for the CIPP rehabilitation of 6,801 LF of 8"-48" sanitary sewer (410' x 30">=). Project required (1) 30">= individual installation utilizing hot water cure.

Metropolitan Council - 2015 | Trenchless Phase 3 Interceptor | St. Paul, MN Project Manager/Superintendent for the CIPP rehabilitation of 18,990 LF of 18"-30" sanitary sewer (3,070' x 30">=). Project required (4) 30">= individual installations utilizing hot water cure.

Minnesota Deptartment of Transportation / MidWest Contracting - 2015 | SP: 8826-146 | Wyattville, MN

Project Manager/Superintendent for the CIPP rehabilitation of approx. 1,354 LF of 24"-54" storm sewer. Project required (5) 30">= individual installations utilizing air/steam cure.

Metropolitan Council - 2014 | 1-MN-341 INTERCEPTOR REHABILITATION | St. Paul. MN

Project Manager/Superintendent for the CIPP rehabilitation of 10,381 LF of 33"-60" sanitary sewer. Project required (18) 30">= individual installations utilizing hot water cure.

City of Minnetonka - 2014 | Trunk Forcemain Lining | Minnetonka, MN Project Manager/Superintendent for the CIPP rehabilitation of 3,330 LF of 18"-30" sanitary sewer force main (1,665' x 30">=). Project required (2) 30">= individual installations utilizing hot water cure.

Wisconsin Department of Transportation / Northwoods Paving - 2014 | STH 13 Cornucopia-Redcliff | Cornucopia, WI

Project Manager/Superintendent for the CIPP rehabilitation of approx. 390 LF of 30"-36" storm sewer. Project required (2) 30">= individual installations utilizing air/steam cure.

Michel	Michels Trenchless, Inc.												-					
Partial	Partial Reference List - Willie Grams	Willie Gran	ns									+	-					
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Year	Location	Proc.	Value	Client	Contact	Phone	36-Inch 39	39-Inch 42-Inch 48-Inch	ch 48-Inc	h 54-Inch	60-inch 66-inch 72-inch 78-inch	inch 72-	nch 78-inc	h 90-inch 96-inch	96-inch	42"	.84 	Total
Pipe Re	Pipe Rehab Projects - 2017								1				ļ <u>.</u>					
9046	2018 Ct Don't MAN	dalu	\$ 1 094 524 Geislinner	Geislinner	Jeff Geisfinger	320-764-2006	929		3158	8								6,514
20,00	St Dark Mil	ddio	\$ 9 889 235 Met Council	Met Council	Jody Jacoby	651-602-1000							144		3866			4,010
2017	2017 Luverne, MN	CIPP	\$ 746,463	746,463 Michels Highway	Ben Holz	920-924-4350				185		-						3,133
										1		_						
Pipe Re	Pipe Rehab Projects - 2018								1			-						1787
2017	Duluth, MN	함	\$ 1,545,849 WLSSD	WLSSD	Betsy Wollen	218-740-4794		4	4/6/		1		2			+	1	7 70
2018	2018 St Paul, MN	CIPP	\$ 3,242,783 Geislinger	Geislinger	Gary Luebbern	320-764-2006				982	4089		2278					1
											-	+	+					
Pipe Re	Pipe Rehab Projects - 2019																	4 545
2019	2019 Various, MN	CIPP	\$ 643,015	643,015 MNDOT	Craig Johnson	507-286-7536	234			187	340	1						200
2019	2019 San Jose, CA	ఠ	\$ 4,796,571 City	City	Helena Choi	408-635-4010			-						155	-		20
Pipe Re	Pipe Rehab Projects - 2020												+					002.0
2020	Milwaukee. W/	CIPP	\$ 942,592 City	City	Reggie Martinka	414-286-3314	947		1518									866,2
2020	2020 Madison, WI	CIPP		284,505 CD Smith	Logan Crull	920-960-9585			-	625								22
Pine Re	Dine Rehah Projects - 2021																	
2021	St Paul, MN	CPP	\$ 2,806,093	\$ 2,806,093 Met Council St Paul	Kimberly Sanders	651-602-4616				1846								1.846
2021	2021 Mantorville, MN	CIPP	\$ 334,206	334,206 MNDOT	James Roberts	507-446-5523			256	209								2,085
L									-			1						
								_				-				1	-	

MICHELS®

DeAnn Duhn

Project Manager

PROFESSIONAL EXPERIENCE

2015 — Present: **Project Manager** | **Michels Trenchless, Inc.** | **Woodland, CA**Developing project scheduling with field supervisor, and working on project start-up with field crews, and the daily development on operational team building involved with cost controls. Bottom up and top down, personnel, equipment, and owner's inspector's reviews for daily production goals.

Responsibilities include job set-up, complete submittals, attend construction meetings, coordinate subcontractors and lining crews, schedule projects, review CCTV and clean videos prior to CIPP installation. Perform work in the field with the lining and wetout crews.

2006 - 2013: Assistant Manager | Randstad | Hanford, CA

Managed 100+ employees, maintained personnel files including I9s, payroll, and training documents. Processed payroll, accounts payable and receivable. Managed worker's compensation and unemployment claims. Spearheaded project to update online systems in offices located throughout California for State and Federal compliance. Prepared multiple offices for internal auditing and standardized the recruiting and hiring processes. Created and implemented Good Manufacturing Practices and Safety Orientation training for large food manufacturing client.

PROJECT PROFILES

City of San Jose I Yard Piping Improvements Phase. 1 I 490LF of 78" and 136LF of 96" CIPP - San Jose, CA

City of San Jose | 96-Inch & 87-Inch Settled Sewage Pipe Rehabilitation; 377LF of 87-inch x 136-inch concrete crown repair and CIPP rehabilitation of 531LF of 96-inch — San Jose, CA

Ross Valley Sanitary District | Large Diameter Gravity Sewer Rehabilitation Project II-2; UV CIPP rehabilitation of 1,943LF of 18in and 1,128LF of 36in — San Anselmo, CA

California Department of Water Resources | Cured-In-Place Pipe Rehabilitation; CIPP rehabilitation of 95LF of 18in, 5,199LF of 24in, 759LF of 30in, 1,366LF of 36in, 412LF of 42in, 230LF of 48in, and 292LF of 54in — Davis, Durham, Richvale, CA

CALTRANS | Various; CIPP rehabilitation of 1,180LF of 18in, 3,753LF of 24in, 1,012LF of 30in, and 1,499LF of 36in — Various, CA

TRAINING & CERTIFICATIONS

- OSHA 30-Hour
- First Aid/CPR Certified
- Confined Space Entry Training

EDUCATION

Lemoore Union High School | Lemoore, CA

High School Diploma

National University | San Diego, CA

Business Administration

Michels Trenchless, Inc. Partial Reference List - DeAnn Duhn	eAnn Duhn																
Year Location	Proc. V.	Value	Client	Contact	Phone	30-Inch 33-Inch	36-Inch	39-inch 42-inch	ch 48-Inch	54-Inch 60	80-inch 66-inch	72-inch	78-inch 99-inch	ch 96-inch	28" x 42"	36" x	Total
Pipe Rehab Projects - 2017																	
2017 Homewood, CA	697	232,365	232,365 Road & Highway		775-852-7283	22			142		52						486
2017 San Anselma, CA	50	1,839,300	işi	ne Hayden	415-259-2949	000	1,119	-					-				3,033
2017 San Anselmo, CA	Sept.	1,221,476 K		Hai Ho Keli Brown	530-241-5105	234 203											3,867
2017 I incolo CA	7 67			<u>~</u>	530-668-5883						<u> </u>						2.975
2017 Bridgeport, CA	┿~	i	59,840 Four Points Engineering		775-465-1216			-									760
2017 Shingletown, CA		1 1			530-246-8933												100
Dine Rehab Projects - 2018								-			-			-			
2018 Fairfield, CA		1		Q.	707-249-1239									_			520
2018 Oakhurst, CA	CIPP	356,806			559-243-3881	150											970
2018 Dunsmuir, CA		1 1		5	530-246-4292	089	1,140										4,960
2018 Beate AFB, CA	CIPP		957,843 Northstar Const	zəu	530-673-7080			+					-	_			11,336
2018 Shaver Lake, CA	CIPP			Kim Wilson	559-2/4-0300	/09	423	-		1			-	_			1,979
2018 Endgebort, CA					R31 429 8111		142										2007
2018 Ukiah, CA		1			707-354-0944		140	-									270
			TT							+-							
Pine Rehah Projects - 2019	1							-						+			
2019 Chico. CA		72.430			530-696-2576						-			-			180
2019 Novato, CA	CIPP \$	279,900	Novato San Dist	Erik Brown	415-892-1694											-	2,311
2019 Sacramento, CA			North Star Const	Darlin Sanchez	530-673-7080	188											1,313
2019 Oroville, CA	0.000		Wylatti Resource Mgmt	Charles Efficit	707-354-0944	170	Ø.			183	+			-		-	219
2019 Giller CA			A Dent of Water Res	Cevin Brown	946-574-0365	150	5 47		77	3				-			1,587
2019 Woodland, CA	oppose &		257,541 City	Mark Miller	530-661-5968	3	1		Ĭ								917
2019 Dixon, CA			Quimu Contracting	Wiguel Quiroz	707-693-0289		40										120
2019 Marina, CA			Whitaker Const	Matthew Bousman	805-226-4020								-	-			5,229
2019 San Jose, CA		4,796,571	CO Marin Co		408-635-4010									533			531
2019 Fairted, CA		20 787 00	Mire Conet		ADR.585.0777											1	136
2019 Wailea, H	CIPP	415,198	struction	Don Raggasch	808-870-3207	562											282
								-						-			
Pipe Rehab Projects - 2020		700 000	Doe	Vesin Beaun	048 574 0385	833	702		140	ğ			$\frac{1}{1}$				1 254
2020 (akeport CA		37,550	5		707-467-4134	3	-	-	?								9
2019 Smartsville, CA	CIPP	, ,	621,317 Teichert Cornst	Danny Warren	916-757-6400		830										1,640
2020 Jackson, CA		74,821 C		ŀ	707-693-0289	08										1	210
2019 San Mareo, CA	250	2,386,911 F		Chips Domolio	202 242 2000	DO#2 C607	180					+	1	-		1	08.7.87 CB CB CB
2020 Austin NV	9	1 625 717 S			775-355-0420							3119	<u> </u>				200.00
2020 Camptonville, CA	3	223.762 F			530-925-5365												770
2020 Angels Camp, CA		148,055 C	\$ 148,055 Quimu Const	-	707-693-0289		152										417
2018 Woodland, CA		5 1,141,193 C	Res		916-574-0365	327	162		125								2,933
2020 Grimes, CA		114,190 (C	Res	Kevin Brown	916-574-0365				186	+	+			-			8
Pipe Rehab Projects - 2021		-														<u> </u>	
2021 San Jose, CA		3,096,903	Çİİ,		408-635-4025								490	136			929
2020 Placerville, CA		3 909,586	Security Paving		818-362-9200	170											990
2021 Dublin, CA	1	\$ 597,551 L	Oublin San Ramon Sanita		925-875-2251		813					+					813
2021 Yreka, CA		2007 547 15	SINL N. Dent of Winter Den		530-222-5046			-					-	-			5,402
2021 Marysville, CA	4	1 424 979	S 1 424 979 CA Dept of Water Res Kevin Brown		916-574-0365	269	552		78								4 784
	-																
Pipe Rehab Projects - 2021				4													ļ
2022 Chico, CA	CIPP		336,885 CA Dept of Water Res	Kevin Brown	916-574-0365	-			38							1	116

Michels Trenchless, Inc.											_				-	_		_		-
Partial Reference List - DeAnn Duhn	eAnn Duh	F							-						-			+	1	T
												!			-		100	+		T
Veer Location	Desco	Voles	1000	A	i							-		-			1	*	×	
1	120	Value	CIIEGL	Contact	Phone	30-Inch	33-Inch	16-Inch	39-inch 33-inch 36-inch 39-inch 42-inch 48-inch 54-inch 60-inch 66-inch 72-inch 78-inch 90-inch 96-inch	Inch 48-Ir	ich 54-Inc	h 60-inci	66-inch	72-inch 7	8-inch 90	-hch 96-	inch 42"	. 48	Total	
							-	-	-	ļ }									T	Ţ
2022 Oasis, CA	CIPP	\$ 43,192	43, 192 Granite Construction	John Johnson	707-467-4149					-		-			-	-		 		8
2022 Merced, CA	CIPP	\$ 445,960	445,960 CA Dept of Water Res	Kevin Brown	916-574-0365			-			-	140	a			+			+	3 8
2022 Stockton, CA	GIPP	\$ 532,219	CA Dept of Water Res	Kevin Brown	916-574-0365	72		284	ŀ		H					-	+	+	+	8 6
2022 Williams, CA	CIPP	\$ 205,820	205,820 CA Dept of Water Res	Kevin Brown	916-574-0365	277		88			<u> </u>		-	1					1	5
2022 Salem, OR	CIPP	\$ 78,075 City		Ben Haney	503-588-6211		-		İ		 -								1	3 5
2022 Clackamas, OR	CIPP	\$ 33,070	33,070 Clackamas County	Jessica Rinner	503-742-4567			-	_							-		+		, K
																				2



Spartan Acquisition, LLC d/b/a GeoTree Solutions 1733 Majestic Drive, Ste 101

Lafayette, CO 80026 1.855.655.6750 geotreesolutions.com

Terril Bentley
Project Manager/Estimator
Pipe Services Operations
Michels Corporation

April 13, 2022

Re: Installer Certification

To Whom it May Concern:

Thank you for your interest and evaluation of GeoSpray® geopolymer mortar. Michels is a certified installer for the geopolymer products produced by GeoTree Solutions. They have a license to use our products for pipe rehabilitation partner in the US and Canada. Their installation crews have been trained by certified GeoTree Solutions trainers and possess the necessary skills and equipment to properly install our geopolymer products.

The GeoSpray geopolymer mortar is specifically designed for large diameter pipe structures, including storm, sanitary and drinking water pipes, and other structures. The materials can be successfully applied to a variety of surfaces including metal, brick, concrete and stone. GeoTree solutions has been providing the GeoSpray geopolymer mortar as a pipe repair system for large diameter pipes since 2011 and to date has worked with various contracts, including Michels on projects totaling over 240,000 linear ft of 30" diameter pipe and above.

Please contact a GeoTree Solutions representative if we can provide any additional information or services.

Sincerely,

Joseph Royer, PhD Vice President R&D GeoTree Solutions



GeoSpray® Geopolymer Mortar Global Project List

EXECUTIVE SUMMARY

This is a summary list of over 370 projects completed by multiple contractors around the world using GeoSpray geopolymer mortar as a lining for pipes, boxes, manholes and structures. Project details are accurate to the best of our knowledge. A detailed list of current and verified references can be provided as needed. This list may not contain a full list of all projects, and corrections are made based on the best information available on the date of publication.

To date almost 295,000 linear ft (89,900 m) of large diameter pipe has been rehabilitated using GeoSpray geopolymer mortar. This amount total over 55 miles (89 km). Approximately 235,000 linear ft (72,000 m) was completed in North America, with the remaining 60,000 linear ft (18,300 m) completed across the globe including Europe, Asia, South America, and Australia/NZ.

Version: March 15th, 2022

Author: Jon Babson

Disclaimer: Please Note: As each customer's use of our product may be different, the information we provide, including without limitation, recommendations, test results, samples, care/labeling/processing instructions or marketing advice, is provided in good faith but without warranty and without accepting any responsibility/liability. Each customer must test and be responsible for its own specific use, further processing, tabeling, marketing, etc. All sales are exclusively subject to our standard terms of sale unless explicitly agreed otherwise in a signed writing.

GeoSpray® is a registered trademark of Spartan Acquisition, LLC



Summary of Experience (2011-2021)

Linear Fo	oot Experience
Size	Length
(in)	(ft)
15"	1421
24"	6364
30"	14816
33"	533
36"	14887
37"	72
39"	10942
40"	91
42" 48"	9932 31955
48 49"	528
50"	252
51"	720
54"	27127
56"	391
57"	361
60"	42502
62"	85
63"	1407
66"	9858
69"	1543
71"	1815
72"	28938
75"	818
78"	11203
80"	60
84"	7687
87"	335
88"	60
90"	4787
94"	3977
96"	4224
102" 104"	714 5160
104"	2222
110"	300
112"	305
114"	4420
118"	657
120"	2794

Linear Foot E (Contin	
Size	Length
(in)	(ft)
126"	345
128"	120
132"	119
139"	115
144"	936
156"	760
162"	75
168"	1365
174"	1778
180"	1118
184"	256
204"	789
213"	110
216"	135
30" x 36"	627
30" x 42"	135
30" x 45"	300
30" x 48"	748
32" x 48"	394
33" x 49"	156
34" x 51"	425
36" x 48" 36" x 58"	269 635
38" x 45"	205
38" x 54"	63
38" x 57"	906
39" x 52"	74
40" x 59"	307
42" x 36"	1600
42" x 72"	675
46" x 70"	150
48" x 33"	460
48" x 51"	1096
48" x 60"	892
48" x 66"	110
50" X 31"	308
50" X 75"	2796
54" x 64"	193
54" x 66"	275
54" x 72"	422

Linear Foot E	
Size (in)	Length (ft)
54" x 80"	110
60" x 40"	847
60" x 42"	375
60" × 80"	280
62" x 72"	620
63" x 84"	204
64" x 43"	131
65" x 40"	187
65" x 50"	140
70" x 109"	50
72" x 48"	410
72" x 54"	122
72" x 72"	20
72" x 84"	124
72" x 113"	665
79" x 49"	1120
80" x 60"	158
80" x 84"	1370
83" x 57"	131
84" x 64"	638
84" x 126"	30
85" x 50"	320
87" x 63"	181
87" x 137"	365
90" x 56"	420
90" x 138"	40
96" x 56"	285
96" x 62"	365
96" x 73"	73
96" x 80"	130
96" x 96"	1385
98" x 47"	223
102" x 84"	296
112" x 75"	150
114" x 72"	541
114" x 78"	597
118" x 72"	33
120" x 84"	293
120" x 120"	10
125" x 83"	172

Linear Foot E (Contin	
Size (in)	Length (ft)
128" x 78"	75
137" x 87"	530
139" x 89"	75
148" x 93"	100
154" x 100"	170
157" x 65"	46
160" x 101"	315
162" x 104"	451
168" x 72"	0
183" x 169"	255
206" x 136"	97
267" x 86"	141
TOTAL	294,577

Vertical Footage
Length (ft)
35,153

Structure Experience
Area (sqft)
90.094



Project Type	Project/Description	Asset Owner	Completed
Sanitary	GLWA Con-149 Task 36 170 linear ft of 126"	Great Lakes Water Authority	Q1-2021
Sanitary	<u>DWSD-DWS-903 Morrel Sewer</u> 200 linear ft of 108"	Detroit Water and Sewer	Q1-2021
Sanitary	DWSD-DWS-903 Fort St. Sewer 302 linear ft of 54" x 72"	Detroit Water and Sewer	Q1-2021
Storm	Executive St 216 linear ft of 78" CMP	Charlotte Storm Water Services	Q1-2021
Storm	Western Ridge 70 linear ft of 90" CMP Invert Repair	Charlotte Storm Water Services	Q2-2021
Storm	Leaf Lake Dr 60 linear ft of 48" CMP	Charlotte Storm Water Services	Q1-2021
Storm	Abelwood Rd 220 linear ft of 72" CMP	Charlotte Storm Water Services	Q1-2021
Sanitary	NYC DEP SE-GUN-19 TASK ORDER 0094 40th Street 515 linear ft of 54" Brick Tile	New York City DEP	Q1-2021
Sanitary	NYC DEP SE-GUN-19 TASK ORDER 0136 Ericsson Place 205 linear ft of 38" x 45" Egg Brick	New York City DEP	Q1-2021
Sanitary	NYC DEP SE-GUN-19 TASK ORDER 0103 Jones St 394 linear ft of 32" x 48" Egg Brick	New York City DEP	Q1-2021
Storm	2020 CMP Rehabilitation TOC - Part 1 1277 linear ft of 42" Storm Pipe 1079 linear ft of 48" Storm Pipe 1343 linear ft of 60" Storm Pipe 869 linear ft of 78" Storm Pipe 1107 linear ft of 72" Invert Paving	City of San Antonio	Q1-2021
Storm	Gwinnett County Georgia Annual Contact Jan- July 2021 100 linear ft of 36" 81 linear ft of 42" 111 linear ft of 48" 200 linear ft of 54" 433 linear ft of 60" 424 linear ft of 72" 238 linear ft of 84"	Gwinnett County, GA	Q2-2021



Project Type	Project/Description	Asset Owner	Completed
Sanitary	Alkali Sewer Rehabilitation 460 linear ft of 60"	Downriver Utility and Wastewater Authority Wyandotte, Michigan	Q2-2021
Sanitary	Interceptor Sanitary Sewer No. 500 Wolf Creek Siphon Rehabilitation 320 linear ft of 54" siphons	Lucas County, OH	Q2-2021
Sanitary	Cass St Bottleneck 20 linear ft of 54" x 72" Brick Sewer Pipe	Peru Utilities Peru, IN	Q2-2021
Sanitary	NYC DEP SE-GUN-19 TASK ORDER 0134 E 14th 743 of 48" brick pipe with clay invert	New York City DEP	Q2-2021
Storm	Westridge Rd 100 linear ft of 60" CMP	Charlotte Storm Water Services	Q2-2021
Sanitary	Reed St 69-inch Combined Brick Sewer 300 linear ft of 69" Brick Sewer	DC Water and Sewer Authority, Washington, DC	Q2-2021
Sanitary	Raizzi Sub Station 238 linear ft of 72" Combined Brick Sewer	Duquesne Lighting	Q2-2021
Storm	LA Hwy 164 - Sibley 130 linear ft of 96" x 80" CMP	Louisiana DOTD	Q2-2021
Storm	MTQ - Highway 20 Rehab 4 box culvert totaling 150 m of 1200 mm x 1525 mm 189 m of 1560 mm x 1820 mm	Ministry of Transport (MTQ) Quebec Renouveau Lafontaine	Q2-2021
Storm	Roseburg Culverts 155 linear ft of 48" 933 linear ft of 60"	City of Roseburg, OR	Q2-2021
Sanitary	<u>Manhole Rehab</u> 2000 vertical ft of manholes 2380 ft ² of structures	Hartford MDC, CT	Q2-2021
Storm	Fruehauf dr 140 linear ft of 90" CMP	Charlotte Storm Water Services	Q2-2021
Storm	Landover Way 103 linear ft of 108"	City of Suwannee, GA	Q2-2021
Storm	190 Roberts Road 341 linear ft of 66"	City of Suwannee, GA	Q2-2021
Storm	La Vista Park Project F 110 linear ft of 54" x 80" Arch CMP Culvert	City of Brookhaven, GA	Q2-2021
Sanitary	Worthington Manhole Rehab 24 vertical ft of manholes	City of Worthington, MN	Q2-2021



Project Type	Project/Description	Asset Owner	Completed
Sanitary	Ashland Manhole Rehab 375 vertical ft of manholes	City of Ashland, WI	Q2-2021
Manhole	EPCOR - Lauderdale/Metro LRT - MH Rehab 3 Manholes @ 1200mm, 68 VF of MH lining, Sanitary 1 Manhole @ 1200mm, 27 VF of MH lining, CSO	Edmonton, Alberta, Canada	Q2-2021
Manhole	EPCOR - Pleasantview NBHD (Norellco) 1 Manhole @ 1200mm - 9 VF of MH lining - Storm 1 Manhole @ 900mm - 11 VF of MH lining - Storm	Edmonton, Alberta, Canada	Q2-2021
Sanitary	<u>Coon Rapids Manhole Rehab</u> 324 vertical ft of manholes	City of Coon Rapids, MN	Q2-2021
Sanitary	Macomb Drop Shafts 120 linear ft of 36" RCP 159 linear ft of 42" RCP 210 linear ft of 48" RCP 45 linear ft of 54" RCP 5,000 sqft of Drop Structures	Macomb County, MI	Q2-2021
Potable Water	Potable Water Tank 2500 sqft concrete water tank	Front Royal, VA	Q2-2021
Sanitary	Utica Sewer Rehab 335 linear ft of 48" sewer	Utica, NY	Q2-2021
Sanitary	Altoona Contract NO 196 Change Order No. 1 (IN DISTRICT 1 & 3) 369 linear ft of 78" Brick 1096 linear ft 48" x51" box 37 vertical ft of Manhole Rehab	Altoona PA Water Authority	Q2-2021
Combined	JCMUA Phase 1&2 Carteret Ave 60 linear ft of 72" 120 linear ft of 84" 120 linear ft of 96"	Jersey City, NJ	Q2-2021
Sanitary	Cambridge Rehab 800 linear ft of 42"	Cambridge, MA	Q2-2021
Storm	Water Drainage Stabilization 2100 ft ² of slope stabilization at 4" Thick	DC Water	Q2-2021
Storm	Lake Forest Rehab 165 linear ft of 60"	City of Lake Forest, IL	Q3-2021
Storm	Elmhurst Rehab 300 linear ft of 60"	City of Elmhurst, IL	Q3-2021
Storm	Storm Water Rehab 215 linear ft of 72"	Road Atlanta Atlanta, GA	Q3-2021



Project Type	Project/Description	Asset Owner	Completed
Storm	MTO Contract 2020-2135 Dick's Creek 20 m of twin 4230 mm CSP	Ministry of Transportation Ontario, CA	Q3-2021
Storm	MTO Contract 2020-2124 Hwy 7 and Lake Ridge 32 m of twin 800 mm CSP	Ministry of Transportation Ontario, CA	Q3-2021
Combined	Engleside Combined Sewer Contract 2019-06 1092 LF of 108" RCP 285 LF of 120" RCP 381 LF of 162" x 104" Arched Brick Sewer	City of Lancaster, PA	Q3-2021
Storm	Palm Bay Malabar Rd 1980 linear ft of 72" CMP	Palm Bay, FL	Q3-2021
Sanitary	Rollins Wilson Chamber Rehabilitation Drop and Sewer Junction Chamber	Lake County (IL) DPW Ingleside, IL	Q3-2021
Storm	Storm Drain Rehabilitation Saline High School 410 linear ft of 72" x 48" CMP Arch	Bienville Parish, La	Q3-2021
Storm	Palm Coast Rehab 300 linear ft of 60" CMP	Palm Coast, FL	Q3-2021
Storm	Calvert Village SWM Pipe Rehabilation 70 linear ft of 36" CMP 16 linear ft of 42" Riser	Department of Public Works Calvert County, MD	Q3-2021
Storm	Port Orleans Resort 70 linear ft of 168" x 72"	Walt Disney World, FL	Q3-2021
Storm	Wood Pipe Collector 60 linear m of 1200 mm Wood collector Pipe	RF Resolu Alma, Quebec, Canada	Q3-2021
Sanitary	Lucas Country Sewer 1880 linear ft of 90" RCP	Lucas Country, OH	Q3-2021
Combined	MMSD CSO 102 Outfall Milwaukee 75' of 48" CSO Sewer 200' of 72" CSO Sewer 125' of 84" CSO Sewer	MMSD of Milwaukee, WI	Q3-2021
Storm	SR 46 culvert 91 linear ft of 60" CMP	INDOT (Indiana) Seymour District	Q3-2021
Storm	IR76 Culvert Renewal 210203 390 linear ft of 36" x 58" CMP Culverts	ODOT District 3 Ohio DOT	Q3-2021
Storm	Modera Germantown Mill Creek Rehab 540 linear ft of 72" Brick Storm Sewer	Nashville, TN	Q3-2021
Storm	<u>Tijuana Sewer Rehab</u> 40 linear meters of 60" PEAD Pipe	Tijauana, Baja California	Q3-2021



Project Type	Project/Description	Asset Owner	Completed
Storm	Vicksburg/Sawgrass/Buckhorn Drainage Pipe 180 linear ft of 42" 745 linear ft of 72" 155 linear ft of 78" 247 linear ft of 84" 173 linear ft of 90" 665 linear ft of 72" x 113"	Norman, OK	Q3-2021
Tank	FEMSA Concrete Tank 3m x 3m x 7m concrete tank	San Juan del Rio	Q3-2021
Storm	Marshall Road Improvements 150 linear ft of 72" CIP	Bexar County, TX	Q3-2021
Manhole	Town of Daysland - CIPP Sewer Rehabilitation 2 Manholes @ 1200mm - 25 VF of MH lining	Daysland, Alberta, Canada	Q3-2021
Manhole	City of Medicine Hat - South Central Sanitary Trunk Rehabilitation - Phase 3 28 Manholes @ 1200mm - 329 VF of MH lining - Sanitary	Medicine Hat, Alberta, Canada	Q3-2021
Sanitary	Jefferson County, AL - 2020 Sewer Rehabilitation Program 1000 VF of Manhole Lining	Jefferson County, AL	Q3-2021
Storm	Louisville S Boulder Rd Culvert Lining 140 linear feet of 65" x 50" CMP Culvert	City of Louisville, CO	Q3-2021
Storm	SEMSWA - Holly & S. Willow Culverts 157 linear feet 108" CMP 94 linear feet 90" CMP Culvert	SEMSWA - Arapahoe County, CO & Centennial, CO	Q3-2021
Storm	CDOT REG 2 STMR200-260 Culvert Spray Lining 278 linear feet 48" CMP 86 linear feet 60" CMP Culvert	Colorado DOT	Q3-2021
Storm	6th Range Rehab 24 m of 900 mm CMP 70 m of 1200 mm CMP 45 m of 1500 mm CMP 40 m of 1800 mm CMP	Town of St-Donat (Rimouski)	Q3-2021
Storm	3rd Rang Rehab 31 m of 1600 mm CMP	Town of St-Paul Lacroix	Q3-2021
Storm	Valcartier Blvd Rehab 20 m of 1350mm CMP 3 m of 1200 mm CMP	City of Quebec City	Q3-2021
Storm	SR 35 Culvert 146 linear ft of 54 CMP	PennDOT - District 9	Q3-2021



Project Type	Project/Description	Asset Owner	Completed
Storm	R20-T094MZ - Colorado Springs 492 linear ft of 54" CMP 1080 linear ft of 60" CMP 1243 linear ft of 69" CMP	Colorado Springs, CO	Q3-2021
Storm	City of Vernon (BC) 26 m of 2200 mm CSP 1000 ft² surface application of a chamber	City of Vernon Vernon, BC	Q3-2021
Industrial	ADM Flume 1500 ft ² of chemical flume	Archer Daniels Midland Peoria, IL	Q3-2021
Storm	CDOT REG 1 - Job 171036 148 linear ft 48" CMP 142 linear ft of 66" CMP 347 linear ft of 120" CMP	Colorado DOT	Q4-2021
Storm	SR 1001 150 linear ft of 46" x 70" CMP	PennDot - District 9	Q4-2021
Storm	I-81 Lackanna County 200 linear ft of 72" CMP	PennDot	Q4-2021
Sanitary	Rochefort and Loranger Streets 300 m of 1050 mm 150 m of 1200 mm RCP	City of Trois-Rivieres	Q4-2021
Storm	Sonoma Water 112 linear feet of 96 " Vortex pipe	Sonoma Water in Santa Rosa California	Q4-2021
Storm	COSA Thousand Oaks 480 linear ft of 120" CMP	City of San Antonio	Q4-2021
Sanitary	Manhole Rehab 325 vertical ft of 48" manholes	North Little Rock, AR	Q4-2021
Storm	<u>Daphne, AL Rehab</u> 154 linear ft of 54" CMP	Daphne, AL	Q4-2021
Storm	MOTI Contract Creston BC 50 m of 1200 mm CSP	Ministry of Transport BC Creston BC	Q4-2021
Storm	Thousand Oaks Culvert Rehab 540 linear ft of 120" CMP	City of San Antonio	Q4-2021
Sanitary	DC Medstar 361 linear ft of 96" 341 linear ft of 108"	DC Water	Q4-2021
Storm	580 Raco Parkway 145 linear ft of 72"	Big Lots Pendergrass GA	Q4-2021
Pit	PEMEX Concrete Pit 1m x 2m x 2m concrete pit	Dos Bocas, Tabasco	Q4-2021



Project Type	Project/Description	Asset Owner	Completed
Tank	FEMSA Concrete Tank 5m x 8m x 4m concrete tank	San Juan del Rio	Q4-2021
Storm	Gwinnett County Georgia Annual Contact Aug- Dec 2021 72 linear feet of 42" 237 linear feet of 48" 445 linear feet of 54" 67 linear feet of 84"	Gwinnett County, GA	Q4-2021
Storm	Negotiated Texas Work 65 linear feet of 30" 138 linear feet of 42" 830 linear feet of 48" 1,835 linear feet of 54" 660 linear feet of 60" 410 linear feet of 66" 300 linear feet of 72" 260 linear feet of 78" 122 linear feet of 52" arched pipe 1,186 square feet of storm structures	Texas	Q4-2021
Sanitary	Sanitary Sewer Structures 180 VF of manholes	Texas	Q4-2021
Water	Rehabilitation of 2200mm-2400mm diameter x 200m Low Pressure Intake Water Pipes	Zhezkazgan Heat electro power station, TOO "Kazakhmys Energy" Republic of Kazakhstan	Q4-2021
Manhole	City of Medicine Hat - 2021 Storm Sewer, MW21- 61 7 Manholes @ 1200mm - 63 VF of MH lining - Storm	Medicine Hat, Alberta, Canada	Q4-2021
Manhole	EPCOR - Trestle No. 3 Rehabilitation (Whitson) 2 Manholes @ 1200mm - 33 VF of MH lining - Sanitary	Edmonton, Alberta, Canada	Q4-2021
Manhole	MD Willow Creek - Granum Sanitary Rehabilitation 6 Manholes @ 1200mm - 46 VF of MH lining - Sanitary	Granum, Alberta, Canada	Q4-2021
Manhole	Agri-Food Industrial Park (Hamm Construction) 3 Manholes @ 1200mm - 20 VF of MH lining - Storm	Moose Jaw, Saskatchewan, Canada	Q4-2021
Storm	Thermal Rd 80 linear ft of 90" CMP	Charlotte Storm Water Services	Q4-2021
Storm	Domino's Pizza 185 linear ft of 84" CMP	Marion, NC	Q4-2021



Project Type	Project/Description	Asset Owner	Completed
Combined	DC Water Capital City R.E. Rhode Island Ave NE 138 linear ft of 78"	DC Water	Q4-2021
Combined	JCMUA CSO Phase 1-2 Brown Place VE 154 linear feet of 60" 85 linear feet of 62" 84 linear feet of 72"	Jersey City Municipal Utility Authority (JCMUA)	Q4 - 2021
Combined	JCMUA CSO Phase 1-2 Caven Point 1000 linear feet of 72" pipe	Jersey City Municipal Utility Authority (JCMUA)	Q4 - 2021



Project Type	Project/Description	Asset Owner	Completed
Storm	Concordia High School Storm Sewer Rehabilitation 206 linear ft of 48" CMP	City of Fort Wayne, IN	Q1-2020
Sanitary	Cairl Ditch Siphon Rehabilitation 360 linear ft of 54" RCP	Lucas County Sanitary Engineers	Q1-2020
Storm	Park St. Pump Station Outfall Rehab 90 linear ft of 60" CMP	City of Mansfield, OH	Q1-2020
Storm	Romeo Arch Storm Sewer Rehabilitation 68 liner m of Cast in Place Masonry with Significant Shape Changes Average Shape 2500 mm x 1200 mm	City of Stratford, Ontario Canada	Q1-2020
Storm	Structural CSP Rehabilitation 90 linear m of 1200 mm diameter CMP Culvert	Private Residences in Saint-Charles-sur- Richelieu, Quebec Canada	Q1-2020
Storm	Palm Coast Rehab 300 linear ft of 96" CMP	City of Palm Coast, Florida	Q1-2020
Storm	Newark 2019 CMP 226 linear ft of 36" CMP 74 linear ft of 39"x52" CMP 545 linear ft of 48" CMP	City of Newark, DE	Q1-2020
Sanitary	JMA AOC 17' Brick Sewer 300 linear ft of 204" Brick Sewer	John Moriarty & Associates Inc	Q1-2020
Storm	Route 13 and 14 New Castle 1120 linear ft 79" x 49" Elliptical CMP	Delaware DOT	Q1-2020
Sanitary	300 Morse Street NE Rehabilitation - Additional Work 18 linear ft of 96"	DC Water	Q1-2020
Sanitary	Lower Little Conestoga Interceptor Rehab 184 vertical ft of manhole lining	Lancaster Area Sewer Authority (LASA) Lancaster, PA	Q1-2020
Storm	<u>Catch Basin Rehab</u> 800 ft ² of structure repair	Jacksonville, FL	Q1-2020
Sanitary	Lower Area Trunk Sewer (LAT) 585 vertical ft of Manholes	DC Water	Q1 2020



Project Type	Project/Description	Asset Owner	Completed
Storm	Trenchless Stormwater Pipe Rehab Annual Contract 10 specific CMP Storm Water Culverts 226 linear ft of 42" CMP 907 linear ft of 48" CMP 148 linear ft of 54" CMP 195 linear ft of 60" CMP 60 linear ft of 66" CMP 266 linear ft of 84" CMP	Gwinnett County, GA	Q2-2020
Sanitary	JC MUA 84 300 linear ft of 84" RCP	Jersey City MUA	Q2-2020
Sanitary	B Street / New Jersey Avenue Truck Sewer - 2020 456 linear ft of 120" Brick Sewer 721 linear ft of 144" Brick Sewer	DC Water	Q2-2020
Storm	Loudoun County VA Storm Detention Phase 1 - SP2 433 linear ft of 96" CMP	County of Loudoun, VA	Q2-2020
Storm	ODOT 98213 FY 20 Culvert Recon 190391 624 linear ft of 72" CMP 230 linear ft of 90" CMP 323 linear ft of 96" CMP	ODOT District 6	Q2-2020
Storm	North Bay Storm Sewer Rehabilitation 207 linear m of 1200 mm RCP and CMP 4 manholes (8 vertical m total)	Ontario Ministry of Transportation	Q2-2020
Storm	SR 66 Arch Culvert Relining 209 linear feet of 122" x 84" CMP arch culvert	Indiana DOT Vincennes District	Q2-2020
Sanitary	Cheektowaga NY Manhole Rehab Phase IV 4267 Vertical ft of 48" Manholes	Town of Cheektowaga, NY	Q2-2020
Storm	FY2019 Drainage Rehab Work Order #4- TC Jester Outfall 76 linear ft of 78" CMP	City of Houston	Q2-2020
Storm	FY2019 Drainage Rehab Work Order #4- Spotts Park Outfall 300 linear ft of 110" CMP	City of Houston	Q2-2020
Storm	FY2019 Drainage Rehab Work Order #4- Pine Shadows Outfall 200 linear ft of 48" RCP	City of Houston	Q2-2020



Project Type	Project/Description	Asset Owner	Completed
Storm	Collective Storm Water Improvements 797 linear ft of 72" CMP 228 linear ft of 60" CMP 228 linear ft of 54" CMP 363 linear ft of 48" CMP 68 linear ft of 42" CMP 1530 ft ² of Drainage Structure	City of Charlotte	Q2-2020
Storm	2016 CDBG Drainage Project Culvert Lining 396 linear feet of 60" CMP Culvert	City of Willis, TX	Q2-2020
Storm	Sagewood Stormwater Project 600 linear ft of 54" CMP	Polk County, NC	Q2-2020
Storm	<u>Trojan Drive Storm Rehab</u> 60 linear ft of 80" CMP	City of Carrollton, GA	Q2-2020
Storm	San Joaquin Pkwy Culvert Rehab 360 linear ft of 60" CMP	City of Friendswood, TX	Q3-2020
Sanitary	DC Water Lock 7 1300 4th Street 74 linear ft of 78" brick sewer	DC water	Q3-2020
Storm	Portsmouth Naval Shipyard Drydock 2 Dewatering 300 linear ft of 48" CMP	Portsmouth, ME	Q3 2020
Combined	Elizabeth NJ Army Corp 1 300 linear ft of 48" CMP	Elizabeth, NJ	Q3 2020
Sanitary	NBC 2019 MH Project 1930 vertical ft of Manholes	Narragansett Bay Authority	Q3-2020
Combined	Breckenridge Tunnel Sewer Lining 259 linear ft of 56" Concrete Tunnel 130 linear ft of 66" Plated Tunnel Sewer 1122 linear ft of 72" Concrete Tunnel	Regional Water Resource Agency Owensboro, KY	Q3-2020
Storm	Boca Del Rio Rehab 131 linear ft of 72" Pipe	Boca Del Rio, Mexico	Q3-2020
Tunnel	Tunnel Repair Approximately 3,000 ft ²	Billings, MT	Q3-2020
Storm	US 36 Culvert Relining 145 linear feet of 137" x 87" CMP arch culvert	indiana DOT	Q3-2020
Storm	SR 9 Culvert Relining 119 linear feet of 132" CMP culvert	Indiana DOT	Q3-2020



Project Type	Project/Description	Asset Owner	Completed
Sanitary	Central Interceptor Phase II 350 vertical footage of 48" manholes	Lansing Department of Public Service Lansing, MI	Q3-2020
Storm	Peterborough Culvert Rehabilitations 40.5 linear meters of 1400 mm CMP Culvert 52.5 linear meters of 3200 mm x 2100 mm CMP 14 linear meters of 4000 mm x 1650 mm CMP arch	City of Peterborough	Q3-2020
Storm	Fox Hill Storm Sewer Rehabilitation 100 linear ft of 148" x 93" CMP Arch Pipe	City of Solon, OH	Q3-2020
Storm	ODOT 190592- US 224-15-61 Culvert Rehab 181 linear ft of 87" x 63" CMP arch	Ohio Department of Transportation, District 3	Q3-2020
Storm	AW Willis / Crosstown Culvert Rehab - Phase II 1300 linear ft of 54" RCP Storm Pipe	City of Memphis, TN	Q3-2020
Manhole	EPCOR Edmonton - Westbrook NBHD - MH Rehab 67 Manholes @ 1200mm -991 VF -Sanitary 7 Manholes @ 1500mm -109 VF -Sanitary 4 Manholes @ 1800mm -93 VF -Sanitary	Edmonton, Alberta, Canada	Q3-2020
Manhole	City of Red Deer 8 Manholes - 69 VF of lining for manholes - Storm	Red Deer, Alberta, Canada	Q3-2020
Manhole	EPCOR Edmonton - Greenfield NBHD - MH Rehab 1 Manhole @ 1200mm -17 VF of MH lining - Sanitary 1 Manhole @ 900mm - 11 VF of MH lining - Storm	Edmonton, Alberta, Canada	Q3-2020
Manhole	Albuquerque Manhole Rehabilitation 1250 VF of lining for 149 manholes	City of Albuquerque, NM	Q3-2020
Storm	MTO Highway 403/Eglington Avenue Phase I 10 meters of 3020 mm x 1840 mm horizontal elliptical corrugated steel culvert	Ministry of Transportation Ontario, Canada	Q3-2020
Storm	Austin NV Rt 5 CMP Rehab 3114 linear ft of 72" CMP Storm Water 75 vertical ft of manholes	Nevada DOT	Q3-2020
Sanitary	San Jose PCBJ Crown Rehab 541 linear ft of 96" 365 linear ft of 87" x 137"	City of San Jose, CA	Q3-2020
Storm	ODOT 190526 35 linear ft of 36" CMP	ODOT District 6	Q3-2020



Project Type	Project/Description	Asset Owner	Completed
Sanitary	Midland City, AL - Manhole Rehab 686 vertical ft of manholes	Midland City, AL	Q3-2020
Storm	Cattle Underpass 75 linear ft of 60"	Washington County, WI	Q3-2020
Storm	Dodge County Rehab 210 linear ft of 48" CMP	Dodge County, WI	Q3-2020
Manhole	Innisfail - 2020 Rehab on Sanitary Manholes 52 Manholes @ 1200mm - 578 VF of MH lining - Sanitary	Innisfail, Alberta, Canada	Q4-2020
Manhole	Medicine Hat - MH Rehab 15 Manholes @ 1200mm - 182 VF of MH lining	Medicine Hat, Alberta, Canada	Q4-2020
Storm	CT DOT Storm Rehab 630 linear ft of 72" CMP 390 linear ft of 84" CMP	Connecticut DOT	Q4-2020
Storm	Culpeper Residence VDOT 440 linear ft of 72"CMP	Virginia DOT	Q4-2020
Storm	TIMM Dr Culvert 65 linear m of 1800 mm diameter CMP Culvert	City of Ottawa	Q4-2020
Storm	City of Gracefield Culvert Lining 20 linear m of 2100 mm CMP	City of Gracefield, Quebec Canada	Q4-2020
Storm	Highway JJ Culvert Rehab 130 linear ft of 48" CMP 80 linear ft of 84" CMP	Manitowoc City, Wisconsin	Q4-2020
Storm	Quentin Rd Culvert Rehab 70 linear ft of 78" CMP	Illinois DOT (IDOT)	Q4-2020
Storm	Mt Zion/Richwood/I-75 Storm Rehab 738 linear ft of 84" CMP	Kentucky Transportation Cabinet	Q4-2020
Sanitary	Santa Cruz - SAGUAPAC Contract #3 883 linear m of 1.2 m RCP Pipe (2900 linear ft of 48")	SAGUAPAC (Santa Cruz, Bolivia)	Q4-2020
Storm	City of Pincourt CMP Rehabilitation 55 linear m of 900 mm CMP culvert	City of Pincourt, Quebec - Canada	Q4-2020
Sanitary	Sanitary Sewer Manholes 10 vertical m of 1.2 m Manholes	City of Lorraine, Quebec - Canada	Q4-2020
Sanitary	Altoona Contract NO 196 - DISTRICT 4 2796 LF 50" x 75" Brick Egg 71 vertical ft of Manhole Rehab	Altoona PA Water Authority	Q4-2020



Project Type	Project/Description	Asset Owner	Completed
Storm	Sinkut & Cluculz Culvert Rehabilitation 78 linear meters of 4.65m x 4.3m CMP Culvert 43 linear meters of 6.8 m x 2.2 m CMP Culvert	B.C. Highways, Canada	Q4-2020
Storm	Trenchless Stormwater Pipe Annual Contract 38 specific CMP Storm Water Culverts 122 linear ft of 36" CMP 554 linear ft of 42" CMP 887 linear ft of 48" CMP 835 linear ft of 54" CMP 965 linear ft of 60" CMP 80 linear ft of 66" CMP 267 linear ft of 72" CMP 100 linear ft of 96" CMP	Gwinnett County, GA	Q4-2020
Sanitary	Clinton-Macomb Interceptor Commission 135 linear ft of 54"	Oakland County Water Resources Oakland County, MI	Q4-2020
Sanitary	<u>Highland Park Sinkhole Repair</u> 111 vertical ft of 60" manholes	City of Highland Park, MI	Q4-2020
Sanitary	Macomb Drop-Shaft No 1 159 linear ft of 42" RCP 210 linear ft of 48" RCP 131 vertical ft of manholes	Macomb County, MI	Q4-2020
Sanitary	Drop Shaft and Connecting Sewer Rehab Part 2 120 linear ft of 36" RCP 210 linear ft of 38" RCP 143 vertical ft of manholes	Macomb County, MI	Q4-2020
Sanitary	GLWA Con-149 Task 35 64 linear ft of 108"	Great Lakes Water Authority	Q4-2020
Sanitary	Akron Sewer Rehab 325 linear ft of 42" Brick Sewer 860 linear ft of 54" Brick Sewer 100 linear ft of 60" Brick Sewer	Akron Public Service Department Akron, Ohio	Q4-2020
Storm	Cottonmill Waste Way Rehabilitation 350 linear ft of 84" CMP	Nebraska Public Power District Kearney, NE	Q4-2020
Sanitary	John Daly St Improvements 20 vertical ft of 60" manhole	Detroit Water and Sewer Department, MI	Q4-2020
Storm	Universal Studios Theme Park Storm Repair 583 linear ft of 72" CMP	Universal Studios, Orlando, FL	Q4-2020
Storm	Elm Trail Rehab 315 linear ft of 66" CMP	Bexar County, TX	Q4-2020



Project Type	Project/Description	Asset Owner	Completed
Storm	Concrete Culvert 23 linear m of 1800 mm RCP	City of Saint-Martine, Quebec, Canada	Q4-2020
Storm	CMP Rehabilitation 88 linear m of 1500 mm CMP	Battelfield, Inc Chicoutimi, Quebec, CA	Q4-2020
Manhole	EPCOR - Lauderdale/Metro LRT - MH Rehab 87 vertical ft of MH lining - Sanitary	Edmonton, Alberta, Canada	Q4-2020
Storm	US 421 White County, IN 340 linear ft of 104" CMP Culvert	Indiana DOT LaPorte District	Q4-2020
Sanitary	WRA Des Moines 7665 linear ft of 78" RCP	City of Des Moines, Iowa	Q4-2020



Project Type	Project/Description	Asset Owner	Completed
Storm	Warren Dr 35 linear ft of 72" CMP	Gwinnett County, GA	Q1-2019
Storm	Allied Pipe Lining Project 174 linear ft of 102" in Structural Plate CMP	Allied Services	Q2-2019
Sanitary	Vancouver Manhole Rehab 65 vertical feet of Manhole Lining	City of Vancouver British Columbia Canada	Q2-2019
Sanitary	Middlebelt CSO Control Facility 2 Manhole - 30 vertical ft in total	City of Inkster, Mi	Q2-2019
Sanitary	Cheektowaga NY Manhole Rehab Phase III 4267 Vertical ft of 48" Manholes	Town of Cheektowaga, NY	Q2-2019
Storm	Kingsglen Ct 26 linear ft 42" CMP	Dunwoody, GA	Q2-2019
Storm	Womack Rd 60 linear ft of 54" CMP	Dunwoody, GA	Q2-2019
Storm	Galleria Common Area Storm Rehab 136 linear ft of 48" CMP	Dunwoody, GA	Q2-2019
Storm	Snee Farm Country Club Culvert Rehab 627 linear ft of 30"x36" CMP 515 linear ft of 30"x48" CMP 76 linear ft of 36"x48" CMP	Town of Mt. Pleasant, SC	Q2-2019
Sanitary	Marshall Street Sewer 1900 linear ft of 60" Brick Sewer	City of Richmond, Virginia	Q2-2019
Storm	EcoCast Grande River Road Storm 260 linear ft of 60" CMP 100 linear ft of 54" CMP	Clayton County Water Authority Clayton County, GA	Q2-2019
Storm	White Lick Creek Trail Culvert Rehab 73 linear ft of 96" x 73" Structural Plate Arch Pipe	City of Avon, IN	Q2-2019
Storm	Oregon DOT District 2 Culvert 60 linear ft of 36" CMP	Oregon DOT	Q2-2019
Industrial	Cooling Water Pipe Rehab 35 linear ft of 36" fiberglass pipe	Fiber Industries Florence, SC	Q2-2019
Storm	Village of Oak Lawn – Invert 680 linear ft of 48" CMP – Invert Only	Village of Oak Lawn, IL	Q2-2019
Storm	Minnesota DOT Culvert Rehab 450 linear ft of 60" CMP	Minnesota DOT	Q2-2019



Project Type	Project/Description	Asset Owner	Completed
Storm	Chula Vista - Rehab 1200 linear ft of 72" CMP 500 linear ft of 54" CMP 200 linear ft 144" CMP 200 linear ft of 180" CMP	Chula Vista, California	Q3-2019
Sanitary	Newark Ave 1600 linear ft of 42" x 36" egg-shaped brick pipe	Jersey City MUA	Q3-2019
Storm	Red Coat Run 221 linear ft of 48" CMP	City of Charlotte, NC	Q3-2019
Storm	SMUD UARP Roadway Improvements 180 linear ft of 42" CMP	Sacramento Municipal Utility District (SMUD) Sacramento, CA	Q3-2019
Storm	Vernon Creek Culvert #3 15 linear m of 1800 m x 2783 m	British Columbia Ministry of Transportation	Q3-2019
Storm	State Route 32 - Montgomery County 56 linear ft of 120" x 84" CMP	Indiana DOT	Q3-2019
Storm	Weathersfield/Woodford Culvert Rehab 85 linear ft of 84" CMP 115 linear ft of 139" CMP	Vermont DOT	Q3-2019
Storm	Palos Hill Culvert 75 linear ft of 128" x 78"	City of Palos Hills, IL	Q3-2019
Sanitary	16th Avenue Phase I 4820 linear ft (1469m) of 104" (2642mm) Sewer Tunnel	Region of York, Ontario Canada	Q3-2019
Sanitary	Interceptor Rehabilitation - Bristol 700 linear ft of 30" RCP 1200 linear ft of 36" RCP 120 vertical ft of Manhole Rehab	City of Bristol, PA	Q3-2019
Sanitary	300 Morse Street NE Rehabilitation 530 linear ft of 96" Brick Pipe 70 vertical ft of 36" Manhole structures	DC Water	Q3-2019
Storm	Summitt Conduit 204 linear ft of 63" x 84" of Egg-Shaped Concrete 597 linear ft of 114" x 78" Elliptical Concrete	Chicago MWRD	Q3-2019
Sanitary	Revere MH Project 2018-19 200 vertical ft 48" Manholes	City of Revere, MA	Q3 2019
Sanitary	Northwest Interceptor GLWA Con-149 Task # 33 453 linear ft of 75" 390 linear ft of 66"	Great Lakes Water Authority	Q3-2019



Project Type	Project/Description	Asset Owner	Completed
Storm	Detroit Metro Airport Runway Reconstruction		
300111	345 linear ft of 54"		Q3-2019
Sanitary	Eagle Exc-MDAHS Laundry Facility 19 vertical ft of 48" Manhole	Metropolitan Detroit Area Hospital System Detroit, MI	Q3-2019
Storm	Peachtree Corners Storm Rehab 350 linear ft of 84" CMP 227 linear ft of 72" CMP 256 linear ft of 66" CMP	Peachtree Corners, GA	Q3-2019
Industrial	<u>Cleaning concrete chamber</u> 250 ft² Concrete Chamber	Recycled bottles of Québec	Q3-2019
Industrial	Rehabilitation of an external cinder block wall 210 linear ft of 6 ft high (avg.) - 1260 ft ²	City of Windsor, Quebec	Q3-2019
Storm	Storm culvert 250 linear ft of 120" CSP	Rio Tinto (IOC), Quebec	Q3-2019
Storm	Storm culvert 180 linear ft of 39" RCP	Rio Tinto (Jonquière), Quebec	Q3-2019
Sanitary	Jersey City 96" CSO Phase 3-4 30 linear of 96" RCP	Jersey City, NJ	Q3-2019
Potable Water	Concrete Potable Water Tanks 5000 sqft of concrete water tank	Front Royal, Virginia	Q3-2019
Sanitary	<u>Shengquan Road</u> 283 m ² of RCP 600-700 mm diameter	Sichuan Province, China	Q3-2019
Sanitary	<u>Civing Road</u> 203 m2 of 500 mm RCP	Sichuan Province, China	Q3-2019
Sanitary	<u>Qishan Rd</u> 385 m ² RCP 500 mm diameter	Sichuan Province, China	Q3-2019
Sanitary	<u>Wucaibingfen Road</u> 1000 mm diameter - Manhole Project	Sichuan Province, China	Q3-2019
Sanitary	Suzhou Road 75 m RCP 600-1400	Sichuan Province, China	Q3-2019
Storm	Bin Jian Road 2.5 km of 600-800 mm diameter RCP	Shanxi Province, China	Q4-2019
Storm	Yingbin Jie 1.3 km of sewer pipe between 400-800 mm	Shanxi Province, China	Q4-2019



Project Type	Project/Description	Asset Owner	Completed
Storm	Storm culverts 824 linear ft of 72" CMP	City of Repentigny, Quebec	Q4-2019
Storm	Storm culvert 250 linear ft of 120" CSP	City of Saint-Basile, Quebec	Q4-2019
Sanitary	Santa Cruz - SAGUAPAC Phase II-Part B 1790 linear m of 1 m RCP Pipe (5873 linear ft of 39" RCP) 2842 m of 1.5 m RPC Pipe (9325 linear ft of 59" pipe)	SAGUAPAC (Santa Cruz, Bolivia)	Q4-2019
Storm	AW Willis / Crosstown Culvert Rehab Phase II 1200 linear ft of 54" Poured in Place Concrete Pipe	City of Memphis, TN	Q4-2019
Storm	Trenchless Stormwater Rehab Annual Contract 17 specific CMP Storm Water Culverts 150 linear ft of 48" 789 linear ft of 54" 193 linear ft of 60" 292 linear ft of 66" 194 linear ft of 72"	Gwinnett County, GA	Q4-2019
Storm	Reconstruction of Runway 3L-2R 359 linear ft of 54" Storm Pipe 456 linear ft of 72" Storm Pipe	Wayne County Airport Authority Wayne County, MI	Q4-2019
Storm	Collective Storm Drainage Improvements Project Series C 62 linear ft of 54' 394 linear ft of 72"	City of Charlotte, NC	Q4-2019
Storm	Lincoln Field Providence RI 100 linear ft of 72" RCP	Brown University	Q4-2019
Storm	Cuff Brook Culvert Lining at Marion Road 54 linear ft of 108" CMP	Town of Cheshire CT	Q4-2019
Storm	Pecan Grove MUD Mayweather Outfall 172 linear ft of 72" CMP 75 linear ft of 48" CMP	Pecan Grove Municipal Utility District, TX	Q4-2019
Sanitary	Altoona 197 460 linear ft of 48"x33" oval brick pipe	City of Altoona, PA	Q4-2019



Project Type	Project/Description	Asset Owner	Completed
Storm	Rehabilitation of Storm Water Management Detention Structures 1276 lining of 84" CMP	County of Loudoun, VA	Q4-2019
Storm	Washington Gas Culvert Rehabilitations 216 linear ft of 84" CMP	Prince George's County	Q4-2019
Sanitary	B Street / New Jersey Avenue Truck Sewer - 2019 1642 linear ft of 174" Brick Sewer 914 linear ft of 180" Brick Sewer 489 linear ft of 204" Brick Sewer 135 linear ft of 216" Brick Sewer 200 vertical ft of Brick Manholes	DC Water	Q4-2019
Storm	Garfield Elementary Pipe Lining 500 linear ft of 84" CMP	Fairfax County, VA Dept of Public Works	Q4-2019
Sanitary	City of Abilene, TC 320 vertical ft of 48" manholes	City of Abilene, TX	Q4-2019
Storm	Bradley Int Airport Contract No. 2018-013 456 linear ft of 48" RCP	Connecticut Airport Authority	Q4-2019
Sanitary	Lower Area Truck Sewer Phase 1 - 100 vertical ft of 48" Manholes Phase 2 - 225 vertical ft of 48" Manholes	DC Water	Q4-2019
Storm	Agimak River Culverts Rehabilitation 200 linear m of 3000 mm CMP Culvert	Ontario Ministry of Transportation	Q4-2019
Storm	Minnesota DOT Culvert Rehab 450 linear ft of 60" CMP	Minnesota DOT	Q4-2019
Storm	West Humbert Trail Culvert Rehab 165 m linear ft of 2900 mm x 1825 mm	City of Toronto, Ontario Canada	Q4-2019
Storm	State Route 156 - Ohio County 239 linear ft of 84" CMP	Indiana DOT	Q4-2019
Storm	Interstate 94 - LaPorte County 187 linear ft of 65" x 40" CMP	Indiana DOT	Q4-2019
Storm	Lake County DOT 75 linear ft of 139" x 89" CMP	Lake County Department	Q4-2019
Storm	Birch Drive 139 linear ft of 48" CMP	Village of Shorewood, IL	Q4-2019



Project Type	Project/Description	Asset Owner	Completed
Storm	Lake Karylbrook Culvert 202 linear ft of 48" CMP	Calvert County Public Works Department (Prince Frederick, MD)	Q1 – 2018
Storm	Capital One 800 linear ft of 60" RCP	Virginia DOT	Q1 – 2018
Storm	ITC 36"/48" EcoCast Railroad 300 linear ft of 36"	Intercontinental Terminals Company	Q1 – 2018
Sanitary	Task 6 - Trinity Joy Sewer Repair 670 linear ft of 78" Brick Sewer	Great Lakes Water Authority	Q1 – 2018
Sanitary	Task 16 – Lynch Road Sewer Rehab 240 linear ft of 90" non-reinforced concrete	Great Lakes Water Authority	Q1 – 2018
Sanitary	Task 17 – B-54" Siphon Lining/Warren Rd 998 linear ft of 54" Concrete Sewer	Great Lakes Water Authority	Q1 – 2018
Sanitary	Eastside Interceptor 2809 linear ft of 54" RCP 96 vertical ft of manholes	Bloomington Normal Water Reclamation District (Bloomington, IL)	Q1 - 2018
Storm	AW Willis / Crosstown Culvert Rehab 1000 linear ft of 8 ft Concrete Box Culvert	City of Memphis, TN	Q1 - 2018
Storm	South Karori Stormwater Culvert Renewal Lining 220 m (720 ft) of 1300mm (51") CMP	Wellington Water Limited (New Zealand)	Q1 - 2018
Sanitary	Picasso Wet Well Repairs Lining a SW chamber 4.5m x 3.5m x 4m deep (Walls, floor, and pipe penetrations) (~850 ft²)	Fonterra	Q2 – 2018
Storm	US 41 Sullivan County 235 linear ft of 66" CMP	Indiana DOT	Q2 – 2018
Sanitary	Village Creek SSR 1020 linear ft of 54" RCP	City of Fort Worth, TX	Q2 2018
Storm	Indiana University Memorial Stadium 406 linear ft of 38" x 57" CMP Directly under Memorial Stadium football field	Indiana University	Q2 - 2018
Storm	North McIntosh EcoCast 180 linear ft of 54" CMP	City of Elberton, GA	Q2 - 2018



Project Type	Project/Description	Asset Owner	Completed
Industrial	<u>WWTP Modifications – Structure Lining</u> Lining 2000 ft² of above ground tank	Georgia Pacific	Q2 - 2018
Storm	Walmart Superstore #2597 Drainage Rehab 528 linear ft of 42" CMP	Walmart Corporation	Q2 - 2018
Storm	Garden State Parkway MP 123.8 Culvert Rehab 786 linear ft of 36" CMP	New Jersey Turnpike Authority	Q2 – 2018
Sanitary	Giddings Brook Drain Rehabilitation/Doan Valley Tunnel Total of 2,221 linear ft of Cast in Place Concrete and Limestone Box Tunnel including: 193 linear ft of 54" x 64" 638 linear ft of 84" x 64" 420 linear ft of 90' x 56" 285 linear ft of 96" x 56" 365 linear ft of 85" x 50"	Northeast Ohio Regional Sewer District	Q3 - 2018
Storm	2017 Macon-Bib County Central Business 18 linear ft of 30" 192 linear ft of 48" 1542 linear ft of 54" 275 linear ft of 54" x 66"	Macon Water Authority (Macon, GA)	Q3 – 2018
Storm	Canal WTP Improvements 100 linear ft of 54" x 72" Brick Arch 385 linear ft of 96" x 96" Brick Arch	City of Columbia, SC	Q3 – 2018
Combined	Route 6 and 10 CSO Rehab 1000 linear ft of 60" Round Brick Pipe 425 linear ft of 34" x 51" Egg-Shaped Brick Pipe 300 linear ft of 30" x 45" Egg-Shaped Brick Pipe 500 linear ft of 38" x 57" Egg-Shaped Brick Pipe	Narragansett Bay Commission Providence, RI	Q3 – 2018
Sanitary	Task 10 – Fox Creek Sewer Rehab 136 linear ft of 174" Cast-in-Place Concrete 75 linear ft of 162" Cast-in-Place Concrete 25 linear ft of 126" Cast-in-Place Concrete 305 linear ft of 38" x 57" Cast-in-Place Concrete	Great Lakes Water Authority	Q3 – 2018



Project Type	Project/Description	Asset Owner	Completed
Storm	Bagley Road, CR27 97 linear ft of 206" x 136" Pipe Arch	City of Middlebury Heights, OH	Q3 – 2018
Storm	Indianapolis International Airport Lining 120 linear ft of 128" CMP culvert under S. High School Road	Indianapolis International Airport Authority	Q3 – 2018
Storm	INDOT I-69 Section 5 Culverts Rehab 233 linear ft of 34" x 48" CMP arch culvert 307 linear ft of 40" x 59" CMP arch culvert	Indiana DOT	Q3 – 2018
Storm	US42 & SR224 Culvert MED-42-6.75 Lining 308 linear ft of Tin 50" x 31" CMP Arched Culverts	ODOT District 3	Q3 – 2018
Storm	Lucas County Sanitary Engineer Interceptor Lining of 1827 linear ft of 90" RCP Sanitary Sewer 52 vertical ft of 96" Shaft 104 vertical ft of 48" diameter Manhole 1664 ft² of containment structures	Lucas County Sanitary Engineer	Q3 – 2018
Storm	Task 19 – 7 Mile Road Outfall Conduit at the Rouge River 210 linear ft of 102" Cast in Place Concrete Pipe Transition to 10 linear feet of 120" x 120" Square Concrete Box	Great Lakes Water Authority	Q3 – 2018
Storm	Hwy 101 MP 116.35 Lincoln City, OR Lining 45 linear ft of 48" CMP	Oregon DOT (ODOT Region 2)	Q3 – 2018
Storm	I-5 MP 84.9 Culvert Rehabilitation Lining 245 linear ft of 36" x 56" Arched CMP	Oregon DOT (ODOT Region 3, District 7)	Q3 – 2018
Storm	NHDOT Project 26162 Harts Location Culvert Rehab 385 linear ft of 137" wide x 87" high steel plate arch	New Hampshire DOT	Q3 – 2018
Storm	North Vancouver Culvert 62 linear ft of 48" CMP	City of North Vancouver, BC Canada	Q3 – 2018
Sewer	Manhole Rehab 132 vertical ft of manholes	Village of Oak Lawn, IL	Q3 – 2018



roject Type	Project/Description	Asset Owner	Complete
Sanitary	Contract 1667 Saw Mill Run and Allegheny Interceptor 13 linear ft of 36" x 48" Brick Pipe	Allegheny County Sanitary Authority (ALCOSAN)	Q3 – 2018
Storm	Churchville Test Area Basin 1 83 linear ft of 42" Storm Drain	US Army Aberdeen Proving Grounds	Q3 - 2018
Sanitary	Santa Cruz – SAGUAPAC Phase II – Part A Rehabilitacion De Emisarios De Alcantarillado Sanitario De Hormigon Armado 1564 linear m of 1.5 m RCP Pipe (5131 linear ft of 60") 2562 linear m of 1.2 m RCP Pipe (8409 linear ft of 48") 70 linear m of 1 m RCP Pipe (229 linear ft of 39")	SAGUAPAC (Santa Cruz, Bolivia)	Q4 - 2018
Storm	CT DOT I-84 Yankee Expressway 334 linear ft of 60" CMP 221 linear ft of 48" CMP 276 linear ft of 30" CMP	Connecticut DOT	Q4 - 2018
Storm	2018 Lower Paxton Creek Drainage Improvements 229 linear ft of 30" RCP 1511 linear ft of 36" RCP	Lower Paxton Township	Q4 - 2018
Storm	Dobbins Airfield Drainage Rehabilitation 668 linear ft of 36" CMP 2520 linear ft of 54" CMP	Dobbins Air Reserve Base, GA US Air Force	Q4 – 2018
Storm	I-84 Section 449 PennDOT Dist 4 400 linear ft 48" CMP 400 linear ft of 60" CMP	PennDOT District 4	Q4 – 2018
Storm	Contract No. 18-04 CMP Lining 120 linear ft of 36" CMP 368 linear ft of 48" CMP 131 linear ft of 64" x 43" Arched CMP 121 linear ft of 83" x 57" Arched CMP	City of Newark, DE	Q4 – 2018



Project Type	Project/Description	Asset Owner	Completed
Storm	Charlotte Stormwater – Exchange and Tarheel Streets 90 linear ft of 90" CMP 90 linear ft of 120" CMP	Charlotte Stormwater Services	Q4 – 2018
Sewer	City of Goldsboro 75 linear ft of 30" Steel Casing	City of Goldsboro, NC	Q4 – 2018
Storm	Abelwood Rd Storm Drainage Improvement 233 linear ft of 72" CMP	Charlotte Stormwater Services	Q4 – 2018
Storm	UNC Chapel Hill 60" Rehab 50 linear ft of 60" RCP	University of North Carolina, Chapel Hill	Q4 – 2018
Storm	Yingbin Jie 1.3 km of RCP Sewer 400mm-800mm varying diameter between manholes	Datong Municipal Engineering Administration Shanxi Province, China	Q4 - 2018
Storm	Eden Estates Stormwater Sewer Rehabilitation 506 linear ft of 54" CMP	City of Greenwood, IN	Q4 – 2018
Sanitary	COH Contract 4258-69 173 linear ft of 48" RCP	City of Houston, TX	Q4 – 2018
Storm	Waco VA Hospital 20 vertical ft of 48" Manhole	US Department of Veterans Affairs	Q4 – 2018
Sanitary	Con-183 DRI Sewer Repair 1300 linear ft of 14' Cast in Place Concrete Crack Repairs	Great Lakes Water Authority	Q4 - 2018
Sanitary	Lewiston ME Manhole Rehab 84 vertical ft of 48" manholes	City of Lewiston, ME	Q4 - 2018
Storm	River Road Culvert Rehab 108 linear ft of 48"	City of Lewiston, ME	Q4 - 2018
Industrial	Kazakhmys Energy Plant 313 (1023') linear m of 1800 mm (71") steel pipe	Kazakhmys Energy	Q4 - 2018



Project Type	Project/Description	Asset Owner	Completed
Sanitary	15th Street Sewer Rehab 410 linear ft of 54" Brick Arch Pipe	Augusta Utilities Department	Q1 - 2017
Sanitary	Brody Interceptor 35 linear ft of 42" RCP 50 linear ft of 48" RCP	City of East Lansing, MI	Q1 - 2017
Storm	Eatonton EcoCast Rehab 35 linear ft of 60"	City of Eatonton, GA	Q1 - 2017
Sanitary	DC Water - Klingle Valley Rehabilitation of 40 Manholes totaling 418 VF	DC Water Sewer Authority (Washington, DC)	Q2 - 2017
Sanitary	DC Water 12th & F Street Extension (Phase II) 365 linear ft of 75" Brick Pipe	DC Water Sewer Authority (Washington, DC)	Q2 - 2017
Storm	Charms Rd Culvert 63 linear ft of 38"x54	City of Wixom, MI	Q2 - 2017
Sanitary	Santa Cruz - Radial 28 Rehab 1116 linear meters of 1 m RCP (3661 linear ft of 39" RCP)	SAGUAPAC (Santa Cruz, Bolivia)	Q2 - 2017
Sanitary	16 Avenue Sewer Tunnel Repair - Pilot Phase 33 m (100 linear ft) section of 2600 mm (102") Cast in Place Sewer Tunnel (45 m cover)	York Region, Ontario, Canada	Q2 - 2017
Sewer	Manhole 51 - Rising Main Spray & Hand application of GeoSpray 94m² (900 ft²) internal area of MH Chamber	Watercare Services (Auckland, New Zealand)	Q2 - 2017
Industrial	Zhezkazgan Power Plant Lining of 105 linear meters of steel pipe 105 linear meters of 2400 mm pipe	Kazakhmys Energy	Q2 - 2017
Sewer	Maketu Pump Stations Rehabilitation Installation of over pumping/bypass system, cleaning & preparation works, application of GeoSpray to MH Lids and pump station/chamber walls + AMS post coat.	Western Bay of Plenty District Council (New Zealand)	Q2 - 2017
Storm	North Decatur Square Storm 242 linear ft of 48" CMP	Brent Scarbrough & Company (Fayetteville, GA)	Q3 - 2017
Storm	City of Riegelwood, NC Lining 30 linear ft of 48" RCP	City of Riegelwood, NC	Q3 - 2017
Storm	Lake Victoria Culvert Rehab 140 linear ft of 36" RCP 16 vertical ft of 48" Riser	Northwest Florida Water Management District	Q3 - 2017



Project Type	Project/Description	Asset Owner	Completed
Storm	Bridle Creek Dr - Culvert Rehab 175 linear ft of 54" CMP	Town of Cary, NC	Q3 - 2017
Industrial	Milliken Chemical - Dewey Plant Phase III 190 vertical feet of 24-48" chemical manholes	Milliken Chemical (Inman, SC)	Q3 - 2017
Storm	Farm to Market Road 212 linear ft of 72" CMP	Broome County, NY	Q3 - 2017
Sanitary	OMID Brick Sewer Repair 110 Linear ft of 17' 9" diameter Cast in Place Pipe	Oakland Macomb Interceptor Drainage District Board	Q3 - 2017
Storm	US 31 Fulton County 149 linear ft of 54" CMP	Indiana DOT	Q4 - 2017
Storm	ODOT Contract 170112 154 linear ft of 72" RCP 145 linear ft of 42" RCP	Ohio DOT	Q4 - 2017
Storm	JAA Airfield Drainage Rehab - Phase 4 1600 linear ft of 36" RCP 1200 liner ft of 42" RCP 375 linear ft of 48" RCP 1325 linear ft of 66" RCP	Jacksonville Aviation Authority (Jacksonville, FL)	Q4 - 2017
Sanitary	WWTP 2017 Improvements 157 linear ft of 36" RCP Additional Chambers Lined (Approx. 96 ft²)	Village of Libertyville, IL	Q4 - 2017
Sanitary	2017 Sewer Lining and Repairs Task 1 Telegraph and Franklin 2 Manhole Installations (Approx. 60 vertical ft.)	Oakland County Water Resources Commission (Detroit, MI)	Q4 - 2017
Sanitary	East Main Force Main 1400 linear ft of 30" PCCP Force Main	Lake County Department of Public Works (Lake County, IL)	Q4 - 2017
Sanitary	ODOT 160219 101 linear ft of 54" Brick 727 linear ft of 66" Brick	Ohio DOT	Q4 – 2017
Sanitary	American Geophysical 30 linear ft of 84" x 126" Brick Pipe	DC Water Sewer Authority (Washington, DC)	Q4 – 2017
Sanitary	Cheektowaga NY Manhole Rehab Phase II 735 VLF of 48" Manholes	Town of Cheektowaga, NY	Q4 – 2017
Sanitary	Municipal of Fuzhou 1800 VLM of 1m manholes (300 manholes)	Municipal of Fuzhou Fujian Province, China	Q4 - 2017



Project Type	Project/Description	Asset Owner	Completed
Industrial	Shell - Franklin Lining 325 linear ft of 72" RCP	Trumbull Corp (Pittsburgh, PA)	Q1 - 2016
Storm	<u>Diffusion Project, Contract 2 Huntington, WV</u> Lining 58 linear ft of 54"	City of Huntington, WV	Q1 - 2016
Storm	DO6-Culvert Rehab - FY2016 194 linear ft of 84" CMP	Ohio DOT	Q1 - 2016
Sanitary	COH 4258-71 R-2013-0050 300 linear ft of 54" RCP 300 linear ft of 60-66" RCP 300 linear ft of 69-72" RCP	City of Houston, TX	Q1 - 2016
Storm	Kashmir Road - Auckland, NZ lining 50 m (150 linear ft) of 1800 mm (72") CMP	Auckland City Council, NZ	Q1 - 2016
Sanitary	COH-CIPP 4258-63 EcoCast Change Order 1500 linear ft of 72" RCP * Confirm	City of Houston, TX	Q1 - 2016
Storm	2016 Storm Drainage Rehabilitation Project Lining 220 linear ft of 66" RCP	City of Littleton, CO	Q2 - 2016
Storm	Ingles #70 Lining 640 linear ft of 48" CMP	NHM Constructors (Asheville, NC)	Q2 - 2016
Sanitary	City of Rock Island, IL 320 linear ft of 48" Brick Pipe	City of Rock Island, IL	Q2 - 2016
Sanitary	DC Water - Arthur Capper Center Lining of 156 linear ft of 33" width by 49.5" height brick sewer	DC Water Sewer Authority (Washington, DC)	Q2 - 2016
Storm	Haywood Road Utility Conversion 85 linear ft of 96" CMP	South Carolina DOT	Q2 - 2016
Storm	Arlington National Cemetery Phase 3 154 linear ft of 30" diameter RCP pipe 153 linear ft of 36" diameter RCP pipe Additional 200 vertical ft of manhole rehabilitation	USACE - Baltimore	Q2 - 2016
Sanitary	NCSD Combined Interceptor Phase 6 Lining of 204 linear ft of 60" RCP 359 linear ft of 66" of RCP Required lining around cross utility drinking water piping	North Charleston Sewer District, SC	Q2 - 2016
Storm	Harris County - Holly Creek Lining 50 Linear ft of 48" CMP	Harris County	Q2 - 2016
Sanitary	COFW - Little Fossil Creek Lining of 81 Vertical ft in 9 Manholes	City of Fort Worth, TX	Q2 - 2016



roject Type	Project/Description	Asset Owner	Completed
Sanitary	<u>Tireman Sinkhole EcoCast Repair</u> 50 linear ft of 87" Brick Pipe - Emergency Sink Hole	City of Detroit Water & Sewerage, MI	Q2 - 2016
Sanitary	DWSD Contract ER-50C John R & Adams Rd 151 linear feet of 48" RCP	City of Detroit Water & Sewerage, MI	Q2 - 2016
Storm	Sweet Wind Circle Lining of 150 Linear ft of 48" CMP	City of Fair Oaks Ranch, TX	Q2 - 2016
Storm	Quail Hollow Rehab Lining 120 linear ft of 36" CMP 80 linear ft of 30" CMP Includes 25 vertical ft of structure rehabilitation	Charlotte Storm Water Services (Charlotte, NC)	Q3 - 2016
Storm	Indiana DOT Contract R-34898-A 310 linear ft of 72" CMP Culvert under US Hwy 31 in Peru, IN	Indiana DOT	Q2 - 2016
Sanitary	EcoCast Pilot - City of Los Angeles Lining of 528 linear ft of 49" Brick	City of Los Angeles, CA	Q3 - 2016
Storm	MDOT - 13 Mile Road Lining 400 linear feet of Twin 78" CMP Culverts	Michigan DOT	Q3 - 2016
Storm	NHPP R100-237 Region 1 Along Front Range, Culvert Repair Lining 1100 linear ft of 48" CMP Lining 252 linear ft of 50" CMP Lining 898 linear ft of 60" CMP Lining 124 linear ft of 6' x 7' Box Culvert	Colorado DOT	Q3 - 2016
Storm	San Marcos Storm Drainpipe Lining 270 linear ft of 48"	City of Pittsburg, CA	Q3 - 2016
Sanitary	DC Water - F. Street Extension Phase I 175 linear ft of 72" Brick Sewer	DC Water Sewer Authority (Washington, DC)	Q3 - 2016
Industrial	City of Auburn - Penstock Rehabilitation 150 linear ft of 126" Steel Additional 15 linear ft of flume with diameter 144"	City of Auburn, NY	Q3 - 2016
Storm	ODOT 160265 61 linear ft of 78" CMP	Ohio DOT	Q3 - 2016
Storm	Calcasieu Parish - Bridge Culvert Rehabilitation Lining of 150 Linear ft of 108" CMP	Calcasieu Parish Police Jury (Lake Charles, LA)	Q3 - 2016
Storm	Aurora Colorado - City Center Lining 730 Linear ft of 96" RCP	City of Aurora, CO	Q3 - 2016
Sanitary	COH EcoCast Conversion Lining of 1301 Linear ft of 72" RCP	City of Houston, TX	Q4 - 2016



Project Type	Project/Description	Asset Owner	Completed
Sanitary	COH Junction Box Rehab Lining of 1488 ft² of existing structure (12x12x25)	City of Houston, TX	Q4 - 2016
Storm	Town of Medway, MA - Winthrop St Culvert 40 linear ft of 72" CMP	Town of Medway, MA	Q4 - 2016
Storm	Tottenville Square Shopping Center 80 linear ft of 48" Corrugated HDPE	Rivercrest Realty Associates (Staten Island, NY)	Q4 - 2016
Industrial	Balkhash Power Plant Lining of 907.5 linear meters of steel pipe with multiple S-Curves and diameter changes 12 linear meters of 600 mm pipe 22 linear meters of 950 mm pipe 165 linear meters of 1200 mm pipe 39 linear meters of 1200 mm transition to 1800 mm 276 linear meters of 1600 mm pipe 49 linear meters of 1600 mm transition to 2400 mm 44 linear meters of 1800 mm transition to 2100 mm 50 linear meters of 2100 mm transition to 2400 mm 250.5 linear meters of 2400 mm pipe	Kazakhmys Energy	Q4 - 2016
Industrial	Zhezkazgan Power Plant Lining of 472.5 linear meters of steel pipe with multiple S-Curves and diameter changes 41 linear meters of 1000 mm pipe 5 linear meters of 1800 mm pipe 61 linear meters of 2200 mm pipe 250.5 linear meters of 2400 mm pipe 73 linear meters of 1600 mm transition to 1800 mm 42 linear meters of 2000 mm transition to 2200 mm	Kazakhmys Energy	Q4 - 2016
Storm	Wattles Road 170 linear ft of 12'10"x8'4" Arched Plate	City of Troy, MI	Q4 - 2016
Industrial	Eastman Kingsport Upgrades 14 (~140 linear ft) of approximately 36" Diameter Manholes	Eastman Chemical (Kingsport, TN)	Q4 - 2016



Project Type	Project/Description	Asset Owner	Completed
Sanitary	COH - Contract 59 Lining 951 linear ft of 54" RCP	City of Houston, TX	Q1 - 2015
Storm	ShaTin Pass Road Lining of 110 linear m of 1450 mm concrete and tile storm drain	Drainage Services Department (Hong Kong)	Q1 - 2015
Industrial	Storm Water Outfall Rehab Lining 71 manholes as part of rehabilitation of plant storm water system Approximately 550 Vertical ft	BASF Chemical Company (Wyandotte, MI)	Q2 - 2015
Storm	Bexar County - Abbot Road Culvert Rehab #2 Lining 220 linear ft of 60" CMP	Bexar County Public Works (San Antonio, TX)	Q2 - 2015
Sanitary	SAWS - South San Marcos St Lining 387 linear ft of 42" RCP	San Antonio Water System (San Antonio, TX)	Q2 - 2015
Storm	Bexar County - Chelmsford Oval Lining 180 linear ft of 36"x48" CMP Culvert	Bexar County Public Works (San Antonio, TX)	Q2 - 2015
Sanitary	City of Lake Wood Pipe Rehabilitation Lining 154 linear ft of 60"x40" Egg Shaped Pipe	City of Lakewood, OH	Q2 - 2015
Storm	City of Eagle Pass - Junction Box/30" Rehab Lining 180 linear ft of 30" steel pipe 216 ft ² of junction box	City of Eagle Pass, TX	Q2 - 2015
Industrial	Miller Coors - Golden Colorado 2000 ft² Chemical Pit Rehabilitation	Miller Coors (Golden, CO)	Q2 - 2015
Storm	SR 446 Culvert Rehabilitation 275 linear ft of 84" CMP under State Road 446 in Lawrence County, IN	Indiana DOT – Seymour District	Q3 - 2015
Storm	University of North Georgia - Athletic Field Lot Lining 380 linear ft of 48" CMP	Athletic Fields Parking Lot (Dahlonega, GA)	Q3 - 2015
Sanitary	Hays - MH Rehab at Walden Lining 17" deep manhole	Hays Utility North Corp. (Montgomery, TX)	Q3 - 2015
Storm	Business Park Dr Underpass Culvert Corrosion 256 linear ft of 184" diameter pipe arch Required additional steel for seismic concerns	City of Vista, CA	Q4 - 2015



Project Type	Project/Description	Asset Owner	Completed		
Industrial	Eastman - Kingsport - 2015 2nd Phase CIPP and ECO 14 manholes as part of smaller diameter CIPP repair Approximately 140 vertical ft	Eastman Chemical (Kingsport, TN)	Q4 - 2015		
Storm	2015 Incline Creek Restoration SR 28 Culvert Outfall Lining 246 linear ft of 66"	Incline Village General Improvement District (Incline Village, NV)	Q4 - 2015		
Storm	Greenwood 48 inch Lining 2 side-by-side 55 linear ft culverts (CMP) of 48"x66" Total of 110 linear ft	Bexar County Public Works (San Antonio, TX)	Q4 - 2015		
Storm	Pipe Lining, Crutcho Creek Tributary D, Phase IV Lining 400 linear ft of 96" CMP	City of Midwest City, OK	Q4 - 2015		
Storm	Brackin Alley Storm Sewer Rehab Lining 304 linear ft of 36" CMP 715 linear ft of 48" CMP	City of Greenville, PA	Q4 - 2015		
Sanitary	Flex Davis 36" Clarifier Rehab Lining 90 linear ft of 36" Including 1192 ft² of additional structures	North Charleston Sewer District (North Charleston, SC)	Q4 - 2015		
Sanitary	COH-CIPP62 Change Order Lining of 2100 linear ft of 60" RCP	City of Houston, TX	Q4 - 2015		
Industrial	Southern Company - Becks Alabama 115 linear ft of 54" CMP	Southern Company	Q4 - 2015		
Industrial	Balkhash Power Plant Lining of 622 linear meters of steel pipe with multiple S-Curves and diameter changes 307 linear meters of 2400 mm pipe 97 m of 1200-2100 mm pipe 218 m of 1000-1200 mm pipe	Kazakhmys Energy	Q4 - 2015		
Industrial	Milliken Chemical - Dewey Plant Phase II 8 vertical feet of 72" diameter chemical manhole	Milliken Chemical (Inman, SC)	Q4 - 2015		
Storm	ODOT 150216 - Guernsey Co Culvert Rehab 300 linear feet of 36" EcoCast Lining	Ohio DOT	Q4 - 2015		



Project Type	Project/Description	Asset Owner	Completed
Sanitary	COH - Braeswood Rehabilitation Lining 2800 linear ft of 72" RCP	City of Houston, TX	Q1 - 2014
Sanitary	Jefferson & 24th 220 linear ft of 60" Brick Pipe	City of Detroit, MI, Water & Sewerage	Q1 - 2014
Storm	Woodside Ave I Magnolia Ave Storm Drain Lining 700 linear ft of 54" CMP 320 linear ft of 48" CMP	City of Santee, CA	Q1 - 2014
Storm	Florida DOT Culvert E5Q70 Lining 1630 linear ft of 60" CMP	FDOT District 5 (Orlando, FL)	Q1 - 2014
Storm	Upper Bay Storm Water Rehab Lining 142 linear ft of 36" CMP	City of Nassau Bay, TX	Q1 - 2014
Sanitary	Washburn CSO Control Project Lining 2780 linear ft of 66" Combined Brick Sewer	City of Springfield, MA	Q1 - 2014
Sanitary	Kentucky Highway 9 Lining 2076 linear feet of egg-shaped sewer including brick, tile and concrete 1042 ft of 42" 98 ft of 48" 540 ft of 60" 395 ft of 66" 378 ft of 60"x40" 158 ft of 80"x60"	Sanitation District 1 (Newport, KY)	Q2 - 2014
Storm	City of El Cajon - Sewer and Storm Drain Repair Lining 1339 linear ft of 36" CMP 91 linear ft of 40" CMP 262 linear ft of 42" of CMP 151 linear ft of 48" of CMP	City of El Cajon, CA	Q2 - 2014
Storm	Rado Drain Rehabilitation Lining 4420 linear ft of 114" CMP	Hidalgo County Drainage District (Edinburg, TX)	Q2 - 2014
Storm	Elliptical Pipe Rehabilitation Repair Lining 675 linear ft of 48" x 72" Arched CMP	City of Rock Springs, WY	Q2 - 2014
Storm	Bowman Road Culvert Rehabilitation Lining 360 linear ft of 54" CMP (4 side by side culverts)	City of Round Rock, TX	Q2 - 2014
Sanitary	COH - Morningside Rehab Lining 580 linear ft of 54" RCP	City of Houston, TX	Q3 - 2014



Project Type	Project/Description	Asset Owner	Completed		
Storm	KCIA Airfield Storm Drain Rehabilitation. C00831C13 Lining of 2015 linear ft of 30" RCP 3758 linear ft of 36" RCP 573 linear ft of 48" RCP Project Conducted on Active Airfield	King County International Airport (Seattle, WA)	Q3 - 2014		
Industrial	Lining Splitter Flume Rehabilitation 20 ft x 20ft x 15 ft Splitter Flume at Paper Mill	Meadwestvaco Corp. (Phoenix City, AL)	Q3 - 2014		
Storm	O'Brien Rd Lining 3 side-by-side 45 linear ft culverts (CMP) of 30"x42" Total of 135 linear ft	Bexar County Public Works (San Antonio, TX)	Q4 - 2014		
Industrial	Process Sewer and Manhole Rehabilitation Lining of 47 manholes as part or chemical sewer rehab	Eastman Chemical Company (Kingsport, TN)	Q4 - 2014		
Industrial	Marathon Manhole Rehabilitation Approximately 35,000 square ft of rehabilitation for 800 manholes, 185 catch basins and 103 drain basins	Marathon Oil (Garyville, LA)	Q4 - 2014		
Industrial	UID Suction Line Rehabilitation Lining 360 linear ft of 60" steel suction pipe (vacuum)	United Irrigation District (Mission, TX)	Q4 - 2014		
Sanitary	Connecticut DOT Reconstruction of I-95 Over West River Lining 558 linear ft of 72" RCP Sewer	Connecticut DOT	Q4 - 2014		
Storm	<u>Lipscomb Phase 2 Rehab</u> Lining 942 linear ft of 80" x 84" Arched RCP	Fort Worth Storm Water Mgmt (Fort Worth, TX)	Q4 - 2014		
Storm	Garden State Parkway Exit 88 Lining 315 linear ft of 160"x101" Arched Plate CMP 315 linear ft of 60"x40" Arched Plate CMP 375 linear ft of 60"x42" Arched Plate CMP 150 linear ft of 112"x75" Arched Plate CMP	New Jersey Turnpike Authority	Q4 - 2014		
Storm	Ravenwood Drive Culvert Lining 40 linear ft of 7.5 ft x 11.5 ft Arched Plate CMP 40 linear ft 48" CMP	Town of Middlebury, CT	Q4 - 2014		
Sanitary	COH - Washington Ave. Sanitary Rehab Lining of 150 linear ft of 39" RCP	City of Houston, TX	Q4 - 2014		
Storm	ODOT District 8 - I-75 Butler County Pipe Rehabilitation Lining 1032 linear ft of 60" CMP	Ohio DOT	Q4 - 2014		



Project Type	Project/Description	Asset Owner	Completed
Storm	Monument Street - City of Baltimore Lining 30 linear ft of 108" CMP	City of Baltimore, MD	Q4 - 2014
Storm	Bexar County - Abbot Road Culvert Rehab Lining 280 linear ft of 60"x80" CMP	Bexar County Public Works (San Antonio, TX)	Q4 - 2014
Sanitary	Quan Xiu Road – Quanzhou Lining of 60 vertical meters of manholes	Municipal of Quanzhou Fujian Province, China	Q4 - 2014



Project Type	Project/Description	Asset Owner	Completed
Storm	Keowee Key Golf Course Lining 220 linear ft of 60" CMP 12 vertical feet of 96" CMP Pond Riser	Keowee Key Property Owners Assoc, Inc. (Salem, SC)	Q1 - 2013
Storm	Cecil Airport Airfield Drainage Rehabilitation Phase II Lining 355 linear ft of 54" RCP 725 linear ft of 60" RCP 450 linear ft of 66" RCP Additional inlet and structures of 600 ft ²	Jacksonville Aviation Authority, FL	Q1 - 2013
Sanitary	WTP Sedimentation Basin Rehab Rehabilitation of concrete walls and basin approximately 5,000 ft²	Monteagle, TN	Q2 - 2013
Industrial	Georgia Pacific Lining 300 linear ft of 54" carbon steel non-potable water pressure pipe	Georgia Pacific (Cedar Springs, GA)	Q2 - 2013
Sanitary	Arch Street Emergency Repair Lining 60 linear ft of 66" brick combined sewer	City of Springfield, MA	Q2 - 2013
Sanitary	City of Houston 4258-54-1 Mangum Lining 160 linear feet of 60" RCP	City of Houston, TX	Q2 - 2013
Storm	City of Sugar Land MH Rehab Rehabilitation of 5 storm manholes Approximately 50 vertical ft	City of Sugar Land, TX	Q2 - 2013
Storm	Fort Worth Trenchless Rehab Contract - WO2 Lining 634 linear ft of 80"x84" Arched RCP 296 linear feet of 102" x 84" Arched RCP	Fort Worth Storm Water Mgmt, TX	Q2 - 2013
Sanitary	City of Houston 4258-54-2 Moody Park Lining 4000 linear ft of 60" RCP Sewer	City of Houston, TX	Q2 - 2013
Sanitary	DeKalb County Lining 17 manholes totaling 158 vertical ft	DeKalb County, GA Dept of Watershed Mgmt	Q2 - 2013
Industrial	Bayer Industrial Lining 400 ft² Junction Box	Bayer Industrial (Institute, WV)	Q2 - 2013
Industrial	Dewey Chemical Plant Lining 5 manholes and wet wells as part of process sewer rehab Approximately 50 vertical ft	Milliken & Company, SC	Q3 - 2013
Storm	Reed Road Drainage Improvements Lining 103 linear ft of 84" CMP	City of Smyrna, GA	Q3 - 2013



Project Type	Project/Description	Asset Owner	Completed
Industrial	Manhole Rehabilitation Lining 4 Manholes in Process Sewer Rehab Approximately 40 vertical ft	International Paper (Vicksburg, MS)	Q3 - 2013
Sanitary	ER-24E, DWS 867 Detroit River Interceptor Lining 760 linear ft of 13' Poured in Place Concrete Pipe	Detroit Water & Sewerage Department, MI	Q4 - 2013
Storm	Byrdhill Road Over Tributary Pipe Culvert Relining Lining 200 linear ft of 66" Steel Culvert	Henrico County, VA	Q4 - 2013
Storm	River Road, Weldon NC - NCDOT Lining 85 linear ft of 108" CMP	NCDOT District 1, (Halifax, NC)	Q4 - 2013



Project Type	Project/Description	Asset Owner	Completed
Sanitary	GHNR 450 Lining 880 linear ft 60" of RCP	City of Houston, TX	Q2 - 2012
Storm	Drainage Pipe SR 212 at Wolf Creek Lining 153 linear ft of 48" spiral ripped aluminized steel drainage pipe	FDOT - District 2 (Lake City, FL)	Q2 - 2012
Sanitary	Posen Construction Sub contracting lining of 110 linear ft of 46" RCP with transition to 48" RCP	Posen Construction (Detroit, MI)	Q2 - 2012
Storm	Deerfield Dr. Culverts Lining 3 Culverts total of 180 linear ft of 96" CMP	City of Kennesaw, GA - Public Works	Q2 - 2012
Storm	Fulton County Stand by Miscellaneous Pipe Lining Lining of 75 vertical feet of 48" diameter manholes	Fulton County Dept of Public Works (Atlanta, GA)	Q2 - 2012
Storm	MC MUD 9 - Waldon on Lake Conroe Storm Sewer Repair Lining of 130 linear ft of 66" CMP Outfall	HC MUD 9 (Conroe, TX)	Q2 - 2012
Sanitary	City of Pasadena Golden Acres WWTP Lining 320 square ft junction box Lining 40 linear ft 48" RCP	City of Pasadena, TX	Q2 - 2012
Sanitary	Kokosing Construction - Columbia Parkway Lining 500 linear ft of 60" Brick Pipe 600 linear ft of 36" Stacked Stone Pipes	MSD Cincinnati, OH	Q2 - 2012
Sanitary	COH Large Diameter Pipe Rehab Contract #4258- 51 460 square ft of junction box Lining 880 linear ft of 72" RCP	City of Houston, TX	Q3 - 2012
Sanitary	EPO North Side SPD-MLK-113010-001 Lining 5,800 square ft of 2 concrete junction boxes	City of Houston, TX	Q3 - 2012
Sanitary	Costa Mesa Sanitary District Bristol Street Sewer Replacement Phase 2 Lining 60 vertical ft of 4 - 48" diameter manholes	Costa Mesa Sanitary District (Cosa Mesa, CA)	Q3 - 2012



Project Type	Project/Description	Asset Owner	Completed
Storm	Valley View Storm Drain Rehabilitation Lining 60 linear ft of 88" CMP	City of Richmond, CA	Q3 - 2012
Sanitary	Los Gatos Creek Trunk Sewer Rehab Project Arroyo Grande Drive, Los Gatos Lining of 80 vertical ft of 48" diameter sanitary manholes	West Valley Sanitation (Campbell, CA)	Q3 - 2012
Sanitary	Pipe Rating Lining Contract #6 Lining of 17 manholes average depth of 8 vertical ft	Metropolitan Sewerage District Buncombe County (Asheville, NC)	Q3 - 2012
Sanitary	Canal WTP Rehabilitation Lining 400 linear ft of 48" x 60" drainage tunnel at WasteWater Treatment Plant	City of Columbia, SC	Q4 - 2012
Storm	Fort Worth Trenchless Rehab Contract - WO1 - Trinity Blvd Lining 750 linear ft of 84" Pipe	Fort Worth Storm Water Mgmt (Fort Worth, TX)	Q4 - 2012
Storm	Emergency Repair of Culverts Hurricane Ridge Lining 264 linear ft of 36" CMP	Federal Highway Administration DOT (Olympia, WA)	Q4 - 2012
Sanitary	Greenvalley Drive Pipe-Bursting 30 vertical ft of 48" Diameter manholes	City of Winder, GA	Q4 – 2012
Storm	Ohio District 6 Culvert - MRW-61-9369 Lining 60 linear ft of 48" CMP	Ohio DOT, District 6	Q4 - 2012



Project Type	Project/Description	Asset Owner	Completed
Storm	IAH Maintenance Contract Lining of 15 vertical ft of 48" diameter storm manholes	George Bush Intercontinental Airport (Houston, TX)	Q2 - 2011
Sanitary	Sanitary Sewer Rehabilitation for the City of Oak Ridge, TN E-3 22 vertical ft of 48" sanitary sewer manholes	City of Oakridge, TN	Q2 - 2011
Storm	Fairfax County Lining 190 linear ft of 33" CMP	Fairfax County, VA	Q3 - 2011
Industrial	Eastman Chemical Sanitary Sewer Rehab Lining 100 vertical ft of 7 - 48" diameter manholes	Eastman Chemical (Kingsport, TN)	Q3 - 2011
Sanitary	Athens-Clarke County Barnett Shoals Sewer Rehab Lining of 200 vertical ft of 48" diameter brick manholes (combined system)	Athens-Clarke County, GA	Q3 - 2011
Storm	Dairy Ashford Storm Outfall Rehab Lining 47 linear ft of 60" CMP	City of Houston, TX	Q3 - 2011
Storm	Gwinnett County Multiyear Storm Water Rehab Lining 327 linear ft of 42" 110 linear ft of 60" 71 linear ft of 72" 188 linear ft of 84" 81 linear ft of 96' 230 linear ft of 102" 20 linear ft of 72" box culvert 976 vertical feet of 48" diameter manholes	Gwinnett County, GA	Q3 - 2011
Storm	City of Dunwoody Emergency Rehab Lining 71 linear ft of 72" CMP	City of Dunwoody, GA	Q4 – 2011
Industrial	Ford Proving Grounds Lining 290 linear ft of 60" CMP	Ford Proving Grounds (Romeo, MI)	Q4 - 2011
Storm	Fort Worth Storm Demo Project Lining 25 linear ft of 84" CMP	Fort Worth Storm Water Mgmt (Fort Worth, TX)	Q4 - 2011
Sanitary	COH Large Diameter Pipe Rehabilitation Contract #4258-46 Lining of 700 linear ft of 72" of RCP	City of Houston, TX	Q4 - 2011

MICHELS Trenchless, Inc.
Geopolymer Reference List

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Cleaning & TV Performed	×	×	×	×	*	×	×	×	×	×	×	×	81 ×	×	×	×	×	×	×	×	×	*	×	×	×	×	×	×	
Phone	206-276-1762	419-213-2926	410-387-3798	270-685-2811	920-683-435	775-223-2957	408-635-4010	203-334-6888	308-530-1148	920-386-3650	847-526-5457	765-447-2324	05-742-7777 181	610-940-1050	301-979-7484	518-695-6739	847-526-5457	780-231-7268	905-872-4955	920-392-4589	312-350-0301	414-940-4854	207-212-2483	717-367-3597	419-213-2926	630-423-0809	309-563-8435	847-526-5457	
Confact	Bobby Jones	Nate Inkrott	Carson Guendhart	Krisit Winkler	Marc Holsen	Garret Queen	Helena Choi	Ryan Thompson	Harvey Benes	Brian Field	Kyle Berger	Brian Garrett	Jeremy Campbell	Vanessa Nedrick	Paul Headland	William P. Patenaude	Kyle Berger	Call Ryan Oakley	Call Ryan Oakley	Call Willie Grahms	Call John Manijak	Call John Manijak	Travis Sterns	Jeff Ebersole	Matt Choma	Call John Manijak	Shawn Mauren	Kyle Berger	
·	312' of 36" x 58"	90" - 1,943lf	96" - 361lf. 108" - 341lf	56" - 259', 66" - 130', 72" - 1,122'	48" - 130ff, 84" - 80ff	72" - 3,119F	816lf of crown repair	72" - 600lf, 84" - 400lf	72" - 372lf	48" - 210lf	78" - 65lf	108" - 340lf	Geopolymer Lining, 1,772' of 60" CMP	Geopolymer lining, 660' of 30", 1180' of 36"	Geopolymer Lining, 4,820 - 104"	Geopolymer Lining of 82 LF of 84" CMP * 1:	Geopolymer Lining of 97LF of 139" x 87" an	65 vf of 48" Diameter manoles	Geopolymer Lining of 770° of 72" CMP	Minnesota DOT Culvert Rehab 450 L.F 60"	Palos Hill Culvert Chicago, Illinois 75' 128" >	48" Diameter Culvert Invert Repair (680 L.F	Rehabilitation of approximately 400' 147" by	229 LF of 30', 1,511 LF of 36" CMP storm d	Rehabilitate 1800 L.F. 90" RCP Sewer Main	Manhole Rehab	Eastside Sewer Interceptor - 54" inch diame	1400 LF of 21" REHAB	
Client	City if Seattle	Lucas County	Clark Construction	Regional Water Resounce Agency	Manitowoc County, WI	Nevada DOT	San Jose, CA	Waters Construction	Nebraska Public Power	Dodge County, Wi	Berger Exc	Reith - Riley Const.	City of Peterborough	Bristol Township	York, ON, CAN	Alpine Construction	Berger Exc	City of Vancouver, British Columbia, Canada	City of Toronto, Ontario, Canada	Minnesota DOT	Palos Hills, IL	Village of Oak Lawn, 1L	CLH & Sons	Ebersole Exc	Lucas County	Village of Oak Lawn, IL	Bloomington Normal	Berger Exc	
Contract Value	481,500,00	2,430,610.00	1,228,751.00	1,652,174.00	138,035.00	1,447,038.50	558,000.00	522,466,00	345,000.00	75,940.00	102,700.00	320,000.00	778,900,00	583,890.00	53,000,000.00	296,345.00	180,600.00	100,000.00	3,001,000,00	130,000.00	99,000.00	50,000.00	304,575.00	246,949.00	2,535,137.00	39,600,00	669,808.00	340,915.00	
Cont	49	45	₩	₩.	₩	₩	€9	49	€9	₩.	()	€9	€9	€	€9	49	₩.	₩.	69	67	69	67	69	₩.	₩.	₩.	69	69	
Proc.	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolуmer	GeoPalymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolymer	GeaPolymer	GeaPolymer	GeoPolymer	GeoPolymer	GeoPalymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPolymer	GeoPalymer	GeoPalymer	GeoPalymer	
Location	Seattle, WA	Lucas County, OH	Georgetown University	Owensbora, KY	Manitowoc, WI	Austin, NV	San Jose, CA	Colchester, CT	Keamey, NE	Dodge County, Wi	Lake Zurich, 11.	Layfayette, IN	Peterborough, Ontario CA	Bristol, PA	Region of York, Ontario	Woodford, VT	Lake County, IL	Vancouver, Canada	Toronto, Ontario, Canada	La Crescent, MN	Palos Hills, IL	Oak Lawn, IL	Carroll County, NH	Hamisburg, PA	Tuledo, OH	Oak Lawn, 🗓	Bloomington, IL	Waukegan, K.	
Year	2022	2021	2021	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2019	2019	2019	2019	2019	2019	2019	2019	2019	2018	2018	2018	2018	2017	2017	
<u>400</u>	22260503	21010452	21010451	200451	200453	200458	200459	200460	200462	200463	200464	200465	134	190451		190452	190453			190506			180506	180512	180513		70231	70373	

Terril Bentley

Project Manager/Estimator

PROFESSIONAL EXPERIENCE

2022-Present: Project Manager/Estimator | Michels Trenchless, Inc. |

Watertown, CT

Daily obligations include estimating projects, preparing bid packages, management of crews, managers, attending pre-bid meetings, scheduling projects, assisting projects and other project managers. Help get projects started with submittals, schedules and other pertinent paperwork. Provide support to current projects in the form of change orders and project closeout.

2016 - 2022: Project Manager/Estimator | Michels Pipe Services | Watertown, CT

2000 – 2016: Project Manager/Estimator | Mainlining Service, Inc./Mainlining America, LLC | Elma, NY

PROJECT PROFILES

Responsible for estimates on over 500 projects nationwide and over \$750 million worth of work. The projects involved small diameter cement and epoxy lining, large diameter cement lining, small diameter water main installation slip lining, temporary bypass installation and CIPP lining.

Lucas County, OH - Geopolymer Line 1,953lf of 90" Sanitary Sewer

Georgetown University; Geopolymer Line 700lf of 96" & 108" Sanitary Sewer

Colchester, CT; Geopolymer Line 1,00lf of 72" & 84" CMP Storm Sewer

Owensboro, KY; Geopolymer Line 1,400lf of 72" Sanitary Sewer

Bristol, PA; Geopolymer Line 1,840lf of 30" & 36" Sanitary Sewer

TRAINING & CERTIFICATIONS

- OSHA 10-Hour
- OSHA 20-Hour
- Basics of Supervising
- First Aid/CPR/AED Certification
- Working at Heights
- Confined Space Awareness

Terril Bentley

MICHELS Trenchless, Inc. Geopolymer Reference List

Prime or Sub	Prime	gng	Prime	Sub	Sub	Sub	Sub	Prime	Sub	Sub	Prime
Cleaning & TV Performed	×	×	×	×	×	×	×	×	×	×	*
Phone	419-213-2926	410-387-3798	270-685-2811	203-334-6888	610-940-1050	518-695-6739	847-526-5457	920-392-4589	207-212-2483	717-367-3597	419-213-2926
Contact	Nate Inkroft	Carson Guendhart	Krisit Winkler	Ryan Thompson	Vanessa Nedrick	Milam P. Patenaude	Kyle Berger	Call Wille Grahms	Travis Sterns	Jeff Ebersole	Matt Choma
ŎĬ	90" - 1,943lf	96" - 3611, 108" - 3411	56" - 259', 66" - 130', 72" - 1,122'	72" - 600lf, 84" - 400lf	Geopolymer lining, 660' of 30", 1180' of 36"	Geopotymer Lining of 82 LF of 84" CMP * 11 William P, Patenaude	Geopolymer Lining of 97LF of 139" x 87" arc	Minnesota DOT Culvert Rehab 450 L.F 60" (Rehabilitation of approximately 400' 147" by	229 LF of 30', 1,511 LF of 36" CMP storm dr	Rehabilitate 1800 L.F. 90" RCP Sewer Main,
1 1	Lucas County	Clark Construction	Regional Water Resource Agency	Waters Construction	Bristal Township	Alpine Construction	Berger Exc	Minnesota DOT	CLH & Sons	Ebersole Exc	Lucas County
Contract Value Client	2,430,610.00	1,228,751.00	1,652,174.00	522,466.00	583,890,00	296,345.00	180,600.00	130,000,00	304,575.00	246,949.00	2,535,137.00
Confr	69	69	es	49	69	₩	63	ø,	69	69	49
Proc.	GeoPolymer \$	GeoPalymer \$	GeoPolymer	GeoPolymer	GeoPolymer	GeoPalymer	GeoPalymer	GeoPolymer	GeoPolymer	GeoPolymer \$	GeoPolymer \$
Location	Lucas County, OH	Georgetown University	Owensbara, KY	Colchester, CT	Bristol, PA	Woodford, VT	Lake County, IL	La Crescent, MN	Carroll County, N⊞	Harrisburg, PA	Toledo, OH
Year	2021	2021	2020	2020	2019	2019	2019	2019	2018	2018	2018
X qor	21010452	21010451	200451	200460	190451	190452	190453	190506	180506	180512	180513

Andrzej Maselek

General Foreman

PROFESSIONAL EXPERIENCE

Maintains and promotes a strong safety culture for all employees, vendors and customers and follows all safety policies, procedures and regulations.

Oversees the Division's Spray-In-Place Pipe (SIPP) operations & directs SIPP installation crews ensuring compliance

SIPP Installation Crew Member

PROJECT PROFILES

Lucas County, OH - Geopolymer Line 1,953lf of 90" Sanitary Sewer

Georgetown University; Geopolymer Line 700if of 96" & 108" Sanitary Sewer

Colchester, CT; Geopolymer Line 1,00lf of 72" & 84" CMP Storm Sewer

Bristol, PA; Geopolymer Line 1,840lf of 30" & 36" Sanitary Sewer

TRAINING & CERTIFICATIONS

- OSHA 10-Hour
- Rough Terrain Forklift
- · Geospray Application Machine
- First Aid/CPR/AED Certification
- Working at Heights
- Confined Space Awareness

Andrzej Maselek

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Michels Trenchless, Inc. Geopolymer Reference List MICHELE

<u>Job</u>	<u>Year</u>	<u>Location</u>	Proc.	Contr	act Value	<u>Ciient</u>			Contact	Phone	Cleaning & TV Performed	<u>Prime or Sub</u>
21010452	2021	Lucas County, OH	GeoPolymer	\$	2,430,810.00	•	Lucas County	90° - 1,943if	Nate Inkrott	419-213-2926	x	Prime
21010451	2021	Georgetown University	GeoPolymer	\$	1,228,751.00	0	Clark Construction	96" - 361if. 108" - 341if	Carson Guandhart	410-387-3798	×	Sub
200460	2020	Colchester, CT	GeoPolymer	\$	522,466.00)	Waters Construction	72" - 600ff, 84" - 400ff	Ryan Thompson	203-334-6888	×	Şub
190451	2019	Bristol, PA	GeoPolymer	\$	583,890.00)	Bristol Township	Geopolymer lining, 860' of 30", 1180' of 36"	Vanessa Nedrick	810-940-1050	x	Sub
190452	2019	Woodford, VT	GeoPolymer	\$	296,345.00)	Alpine Construction	Geopolymer Lining of 82 LF of 84" CMP * 11	William P. Patenaude	518-695-6739	×	Sub
180506	2018	Carroll County, NH	GeoPolymer	\$	304,575.00)	CLH & Sons	Rehabilitation of approximately 400' 147" by	Travis Stems	207-212-2483	x	Sub
180512	2018	Harrisburg, PA	GeoPalymer	\$	246,949.00)	Ebersole Exc	229 LF of 30", 1,511 LF of 36" CMP storm dr:	Jeff Ebersola	717-367-3597	×	Sub
180513	2018	Tolada OH	GenPolymer	5	2.595.137.00)	Lucas County	Rehabilitate 1800 L.F. 90" RCP Sewer Main,	Matt Choma	419-213-2926	×	Prime



Geopolymer Work Plan 48-Inch Santa Clara Force Main

- 1. Isolate and dewater pipe
- 2. Clean pipe in preparation for Geopolymer application
- 3. Apply Geopolymer using a combination of spin-cast and hand application
- 4. Access Locations:
 - Santa Clara Influent Structure 1
 - Santa Clara Influent Structure 2
 - 24in Blind Flange MH at STA 10+57) *excavate access pit
- 5. Work to be scheduled and performed in accordance with the project constraints and sequencing.

Subject: V-Wrap™ CFRP System Performance

To whom it may concern,

Structural Preservation Systems, LLC (STRUCTURAL) acknowledges, per the RFP requirements of subsection 1.05.6 of Specifications Section 3301 30.73, that STRUCTURAL (including all Structural Group entities) has not had any projects where the installed Structural Technologies V-WrapTM CFRP system failed, did not perform as intended or where work was halted or abandoned prior to completion of the originally contracted scope of work.

If you should have any questions regarding this correspondence, or need any additional information, please contact me at mszoke@structural.net or by phone at 714.782.1514.

Sincerely,

Mike Szoke Senior Branch Director



Re: Section 33 01 30.73 - CFRP Rehabilitation

Subject: Certified Applicator Letter

To Whom It May Concern:

This letter is to confirm that Structural Preservation Systems, LLC (STRUCTURAL) is a certified applicator of Structural Technologies' V-WrapTM Carbon Fiber (CFRP) Systems. As required by the CFRP Specification Section 33 01 30.73, Structural Technologies, LLC, manufacturer and supplier of the V-WrapTM system, certifies STRUCTURAL as an applicator and has a training program to instruct its applicators in the installation of the products. One clear benefit of selecting our products and installation team is the synergy created between top-of-the-line products and quality craftsmanship in the field. The selected project team has extensive history installing V-WrapTM CFRP in pipeline structures.

We are eager to work with you and your group to support your pipeline's upgrades need on this project. If you should have any questions regarding this correspondence, or need any additional information, please contact me at apridmore@structural.net or by phone at 714.869.8824.

Sincerely,

Anna Pridmore, PhD Vice-President, Pipeline Solutions

Re: Section 33 01 30.73 CFRP Rehabilitation

Subject: Team Experience Letter

To Whom It May Concern:

Structural Preservation Systems, LLC (STRUCTURAL) has over 150,000 man-hours worked on pipeline projects in the past five (5) years, and our crews have extensive experience working in pipeline structures. STRUCTURAL certifies that the superintendent and foreman able to perform the work each have a minimum of five (5) years of experience with a minimum of five (5) separate projects in large diameter (36-inch or greater) internal pressure pipeline repair projects utilizing CFRP liner as a stand-alone upgrade of pressure pipes without reliance on the host pipe for structural integrity. In addition to the superintendent, and foreman, STRUCTURAL will have at least one field QA/QC personnel throughout the project execution. STRUCTURAL's crew exceeds the experience requirement specified in the technical specification Section 33 01 30.73. Staffing for the project will include the following:

Executive Project Manager – Jason Alexander Senior Project Manager – Stan Boshart Project Manager – Adrian Muela Superintendent – Sergio Lechuga Foreman – Aldolfo Cepeda

Quality Assurance - Logan Trifone

If you should have any questions regarding this correspondence, or need any additional information, please contact me at mszoke@structural.net or by phone at 714.782.1514.

Sincerely,

Mike Szoke Senior Branch Director

Subject: City of San Jose - YPP2 CFRP Rehabilitation

RE: Ancillary Equipment List

To whom it may concern:

Structural Preservation Systems, LLC (STRUCTURAL) confirms, per Specification 33 01 30.73 Section 1.05.5 requirements, that we will provide ALL ancillary equipment for the project including surface preparation equipment, ventilation, environmental controls units and generators. Below is a preliminary list of the equipment to be provided:

Description	Quantity	Power/Fuel Req'ts	Eq. Size
375 CFM Air Compressor	2	Diesel	10' L x 6' W x 6'H
HC 5000 Desiccant Dehumidifier	1	460 volt, 138 full load amps	14'L x 4'W x 6' H
18,000 CFM Dust Collector	1	Diesel	16'L x 9'Wx10'2"H
60KW In-line Heater	2	460 volt, 72 full load amps	3'L x 3'W x 3' H
Material Storage Trailer	1	Diesel	50'L x 8'W x 9'H
FRP Saturator Machine	2	110v	4' L x 2' W x 5'H
Light Tower	4	Diesel	TBD
Abrasive Blast Pot	3	Pneumatic	2'L x 2'W x 4'H
Tool Trailer	1	110v	50'L x 8'W x 9'H

Additionally, STRUCTURAL hereby provides a list of the personal protective equipment (PPE) that will be used by crew members throughout the implementation phase of this project:

- Hard Hat
- Steel Toe Boots
- Respirators
- Glasses
- Vests
- Knee Pads
- Rescue tripod
- Wristlets
- Tyvek Suits
- Rubber Boots
- Ear Plugs/Muffs

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Gloves

STRUCTURAL will provide this gear to its personnel and provide expectations of use for each as part of our safety training and safety briefings.

If you should have any questions regarding this correspondence, or need any additional information, please contact me at mszoke@structural.net or by phone at 714.782.1514.

Sincerely,

Mike Szoke Senior Branch Director Structural Preservation Systems, LLC
1332 N Miller St. • Anaheim, CA 92806 • Phone: 714-891-9080

www.structural.net

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Manufacturer & Installer Pipe Project References - V-Wrap™ CFRP internal standalone upgrades

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54	48	72	9	72	48, 60	78	09	42	42	120	09	60	84	108, 120	78	72, 102
847-623-6060	602-522-4347	406-740-0504	713-253-5256	214-670-8796	502-569-3601	406-740-0504	613-822-1064	480-459-0312	615-636-8943	410-787-6915	301-206-8563	949-342-2314	410-545-3301	919-410-2672	415-812-2460	513-256-6553
Bill Stoltz	Jacqueline Corey	Jen Petritz	John Sealy	Johnny Partain	Andy Williams	Jen Petritz	Jeremy Lemieux	Ryan Biggs (Waco)	Greg Schiefer	Russell Bowie	Michael Gipsov	Roman Obzejta	Majid Afshar	Brian Neal	Jim Crowley	John Barnes
Waukegan, IL	Phoenix, AZ	Colstrip, MT	Houston, TX	Dallas, TX	Louisville, KY	Colstrip, MT	Ottawa, Canada	Phoenix, AZ	Nashville, TN	Curtis Bay, MD	Gaithersburg, MD	Irvine, CA	Baltimore MD	Roxville, NC	Santa Clara, CA	North Bend, OH
North Shore Water Reclamation District	City of Phoenix	Talen Energy	Coastal Water Authority	Dallas Water	Louisville Water	PPL Montana	City of Ottawa	City of Phoenix	Metro Government of Nashville and Davidson County	Raven Power/Talen Energy	Washington Suburban Sanitary Commission	South Coast Water	Baltimore City Department of Public Works	Duke Mayo	Santa Clara Valley Water District	Miami Fort Station
Municipal	Municipal	Municipal	Municipal	Municipal	Municipal	Power	Municipal	Municipal	Municipal	Power	Municipal	Municipal	Municipal	Power	Municipal	Power
2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018
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	84" PCCP: 120 120" PCCP: 130 steel: 225	40	3410	48	09	1665	300	30	106	16	16	48	100	144	64	123	48
2	84, 120	54	09	54	48	84	104, 97-3/8, 102, 90, 69, 52	84	54	09	99	102	48	78	48	54	48
	785-456-6108	312-666-3626	908-323-5422	410-545-3301	908-510-8289	302-547-0769	406-586-1995	435-864-4414	410-545-3301	602-474-3978	214-670-8796	201-954-2469	502-569-3600	402-803-8347	301-206-8563	301-206-8564	(732) 634-1500 Ext 1324
	Cole Hoing	Kenneth Chin	Rich Conklin	Majid Afshar	David Tanzi	Regis Yurcich	Ely Johnson	Michael Steele	Majid Afshar	Scott Jauch	Johnny Partain	Joe Salgado	Andy Williams	Luis Solis	Michael Gipsov	Michael Gipsov	Jan Chwiedosiuk
	St Mary's, KS	Chicago, IL	South Plainfield, NJ	Baltimore, MD	Edison, NJ	New Castle, DE	Olancha, CA	Delta, UT	Baltimore, MD	Phoenix, AZ	Dallas, TX	Middlesex, IN	Louisville, KY	Santa Clara, CA	Laurel, MD	Laurel, MD	Iselin, NJ
	Westar Jeffery Station	Illinois DOT - Reliable	New Jersey American Water	Baltimore City Department of Public Works	Middlesex Water Company	New Castle County	Los Angeles Department of Water & Power Haiwee Power Plant	Intermountain Power	Baltimore City Wabash	City of Phoenix	Dallas Water Utilities	Middlesex County Utilities Authority	Louisville Water Company	Santa Clara Valley Water District	Washington Suburban Sanitary Commission	Washington Suburban Sanitary Commission	Middlesex Water Company
	Power	Municipal	Municipal	Municipal	Municipal	Municipal	Power	Power	Municípal	Municipal	Municipal	Municipal	Municipal	Municipal	Municipal	Municipal	Municipal
	2018	2018	2019 (Oct)	2019 (Nov)	2019 (Oct)	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34

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	32	260	61	168	612	64	48	527	61	120	1100	44	16	388	140	180	60
	70, 95	84	09	96	42, 48	96	48, 70	96	48	78	96	78	54	36, 54	48	50	54
	301-843-4523	241-670-8107	412-255-8800 etx. 5519	520-837-2409	954-719-5949	316-772-8937	361-0776-6152	502-525-9419	613-324-1833	707-753-3162	502-525-9419	806-865-3257	732-218-1109	410.545.3301	410-545-3301	337-708-8252	847-623-6060
	Jeffrey Riggleman	Luis Bodington	Sara Bolenbaugh	Paul Acosta	Prajwal Aditya	Sam Marston	Danny Bowden	Roy Arnold	Bruce Kenny	Ethan Brand	Roy Arnold	Chad Pernell	Jan Chwiedosiuk	Majid Afshar	Majid Afshar	Blake Crochet	Bill Stoltz
	Newburg, MD	Rolling Oaks, TX	Pittsburgh, PA	Tucson, AZ	Fort Lauderdale, FL	Garland, TX	Corpus Christi, TX	Ghent, KY	Ottawa, Canada	Santa Clara, CA	Ghent, KY	Sanford, TX	Iselin, NJ	Baltimore, MD	Baltimore, MD	Lake Charles, LA	Waukegan, IL
	Genon Morgantown Generating Station	City of Dallas	Pittsburgh Water & Sewer Authority	City of Tucson Water Department	City of Fort Lauderdale	North Texas Municipal Water District	Oxy Ingleside	Kentucky Utilities	City of Ottawa	Santa Clara Valley Water District	Kentucky Utilities	Canadian River Municipal Water Authority	Middlesex Water Company	Baltimore City Department of Public Works	Baltimore City Department of Public Works	CITGO Lake Charles	North Shore Water Reclamation District
	Power	Municipal	Municipal	Municipal	Municipal	Municipal	Industrial	Power	Municipal	Municipal	Power	Municipal	Municípal	Municipal	Municipal	Industrial	Municipal
	2020	2020	2020	2020	2020	2020	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021	2021
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51

Structural Structural

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		09	96	96, 108	99	42	42	84	39 × 59	102	09	36 & 54	96	42	54	102	36	84
		908-323-5422	502-525-9419	610-498-6210	410-545-3301	316-351-9830	201-481-4358	615-741-2414	202-787-2362	201-954-2469	214-948-4248	780-293-7093	520-837-2409	810-459-0505	214-670-8005	410-787-5088	202-330-9003	214-670-8005
		Rich Conklin	Roy Arnold	Dax Fleckenstein	Majid Afshar	Braden Lysen	Rick Denacola	Leonard Arnold	Steve Bian	Joe Salgado	Erick Steitle	Luca Vacirca	Paul Acosta	Gino D'agostini	Jeff Hadaway	Harry Brocato	Michael Johnson	Jeff Hadaway
		South Plainfield, NJ	Ghent, KY	Bangor, PA	Baltimore, MD	Wichita, KS	Little Ferry, NJ	Nashville, TN	Washington, DC	Holmden, NJ	Dallas, TX	Edmonton, AB, CA	Tucson, AZ	Farmington, MI	Addison, TX	Curtis Bay, MD	Baltímore, MD	Dallas, TX
		New Jersey American Water	Kentucky Utilities	Talen Energy	City of Baltimore Gwynn Falls	City of Wichita	Bergen County Utilities Authority	Metro Government of Nashville and Davidson County	DC Water	Middlesex County Utilities Authority	Dallas Water Utilities - Cadiz	ПАВ	Tucson	GLWA	Dallas Water Utilities	Brandon Shores	City of Baltimore	Dallas Water Utilities
		Municipal	Power	Power	Municipal	Municipal	Municipal	Municipal	Municipal	Municipal	Municipal	Industrial/Power	Municipal	Municipal	Municipal	Power	Municipal	Municipal
		2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022
		52	53	54	55	56	57	58	59	60	61	62	83	64	65	99	29	89

STRUCTURAL HAS BEEN IMPLEMENTING CFRP LINING UPGRAGES IN PIPELINES FOR OVER 15 YEARS,



A Structural Group Company

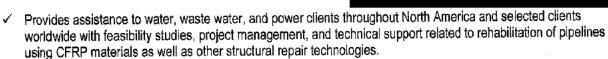
Name: Anna Pridmore, PhD Vice President, Pipe Solutions Subject Matter Expert

EDUCATION UNIVERSITY OF CALIFORNIA, SAN DIEGO

Ph.D. in Structural Engineering Focus Areas: Advanced Composites, Design, Material Science and Structural Analysis

SELECTED RELEVANT PROFESSIONAL EXPERIENCE

Structural Technologies (01/2013 - Current)



- ✓ Works with pipeline owners, including numerous nuclear power plants, on technical details related to contingency planning and repair of large diameter above ground and buried pipeline systems.
- ✓ Participates in focus area organizations, including authoring and presenting papers, and attending technical conferences.

SUBCOMMITTEE SECRETARY

- ✓ AWWA Subcommittee on CFRP renewal of PCCP (04/2010 Current)
- Serves as secretary for AWWA subcommittee on CFRP Renewal and Strengthening of PCCP.

COMMITTEE MEMBER

- ✓ ASME Task Group on Repair by Carbon Fiber Composites (11/2012 Current)
- ✓ Serves as committee member on ASME Task Group on Repair by Carbon Fiber Composites for class 2 and class 3 piping.

VICE PRESIDENT, WATER TRANSMISSION DIVISION, Fyfe Company, LLC (01/2010-12/2012)

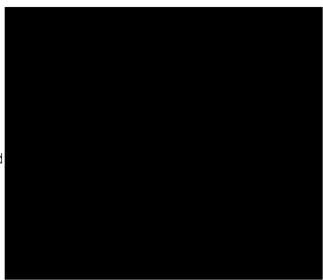
- ✓ Technical lead for over 60 projects involving CFRP strengthening of large diameter pipelines.
- Worked with over ten nuclear plants on development of programs involving pipeline upgrade using internally applied carbon fiber and/or contingency planning for carbon fiber repairs immediately following pipeline inspections during scheduled outages.

SESSION MODERATOR, ASCE Pipelines (02/2010- 09/2010)

Reviewed and provided comments on papers and presentations for a session for ASCE Pipelines and served as the moderator during the presentation of the papers.

LECTURER, University of California, San Diego - Structural Engineering Department (01/2009-04/2010) Instructor of record for SE142: Design of Composites Structures (Senior level course). Course involved lectures on theory as well as a hands-on laboratory component which addressed hand layup techniques, composite fabrication Confidential: Any unauthorized use or distribution is prohibited.

Document 1 08/06/14



issues and uses in industry. Topics covered included composite classification, fiber and matrix types, manufacturing processes, determination of micromechanical properties, classical lamination theory, strength theories, first-ply-failure, joining, test methods and design.

BRIDGE ENGINEEER/COMPOSITES CONSULTANT, Simon Wong Engineering (09/2009 –01/2010) Composites Consulting, MWD

- Worked with the Metropolitan Water District of Southern California on a proposed multi-phase research project regarding the development of national standards for the design methodology related to CFRP strengthening of PCCP with broken pre-stressing wires.
- ✓ Principal investigator for proposed research scope for UCSD and Simon Wong Engineering Bridge Design and Seismic Retrofit, Various Projects

Project engineer for seismic evaluation, retrofit/replacement design, environmental documentation, and design check for various new and existing historic bridge projects.

RESEARCH SCIENTIST, University of California, San Diego (09/2001 – 06/2009)

- ✓ Developed, assessed and validated composite renewal systems for rehabilitation of civil and bioengineering structures through analytical means, materials testing, and large scale experimental investigations.
- Coordinated the spending of large research grants.

SELECTED PIPELINE REHABILITATION PROJECT EXPERIENCE

- ✓ PSEG Hope Creek 144" PCCP
- ✓ Constellation Energy 102" PCCP
- ✓ WSSC 48, 54, 66, 72, 96" PCCP
- ✓ APS Cholla 84" PCCP
- ✓ Miami-Dade 48, 54, 96" PCCP
- ✓ MWD of Southern California 96" & 201" PCCP
- ✓ Howard County, MD 36" PCCP

A comprehensive list of over 70 pipeline project references is available upon request.

SELECTED TECHNICAL PRESENTATIONS

- ✓ Melchionna, J., A.B. Pridmore "Hope Creek Circulating Water Pipeline 2013 Carbon Fiber Upgrade" EPRI Nuclear Buied Pipeline Ingegrity Group (BPIG) Conference, 2014 Feb 19; Palm Coast, FL. (2011).
- ✓ **Pridmore, A.B.,** E. Zaharias "Advances in Surface Preparation and Repair Technology for Internal Upgrade of Large Diameter Pipelines" NACE Nuclear Coatings Conference, 2014 Jan 15; Orlando, FL. (2014).
- ✓ Mead, I.W., A.B. Pridmore "History of PCCP Management Program for Providence Water" AWWA Distribution Systems Symposium and Emergency Preparedness Conference, 2013 Sept 17; Itasca, IL. (2013).
- ✓ Cribb, M., A.B. Pridmore "Proactive Upgrade of Steel Pipelines during Scheduled Plant Outages" EPRI Nuclear Buried Pipeline Integrity Group (BPIG) Conference, 2012 Feb 22; Palm Coast, FL. (2012).
- ✓ Melchionna, J., A.B. Pridmore "Effective Specifications for CFRP Lining Systems" EPRI Nuclear Buried Pipeline Integrity Group (BPIG) Conference, 2011 July 11; St. Louis, MO. (2011).
- ✓ **Pridmore, A.B.** "Buried Pipeline Stepped Asset Management Practices" *EPRI Nuclear Buied Pipeline Ingegrity Group (BPIG) Conference*, 2011 Feb 15; Palm Coast, FL. (2011).
- ✓ **Pridmore, A.B.** "Case Study: Constellation Brandon Shores. 1,100 LF 102"PCCP: Carbon Fiber vs. Alternate Options" *EPRI Nuclear Buied Pipeline Ingegrity Group (BPIG) Conference*, 2010 July 12; Atlanta, GA. (2010).

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SELECTED TECHNICAL PUBLICATIONS

- ✓ Pridmore, A.B, R. Ojdrovic, and M. Geraghty, " Fifteen Years of Lessons Learned: Design and Construction of CFRP Liners for Large Diameter Pipelines" ASCE Pipelines Annual Conference, 2014 Aug 4-7; Portland, OR. (2014).
- ✓ Bian, S. and A.B. Pridmore, "DC Water Rapid Repair of Waste Water Treatment Plant Piping System" ASCE Pipelines Annual Conference, 2014 Aug 4-7; Portland, OR. (2014).
- ✓ Gipsov, M.P., A.B. Pridmore, "Conquering Construction Challenges during PCCP Rehabilitation" ASCE Pipelines Annual Conference, 2014 Aug 4-7, Portland, OR. (2014).
- ✓ Acosta, P. and A.B. Pridmore, "Tucson Water's Strengthening Approach to Address Thrust Restraint for PCCP", ASCE Pipelines Annual Conference, 2014 Aug 4-7; Portland, OR. (2014).
- ✓ McReynolds, M., B. Sleeper, M.S. Zarghamee, A.B. Pridmore, "Retrofit of CFRP Installation to Meet Current Design Standards", ASCE Pipelines Annual Conference, 2013 Jun 24-26; Fort Worth, TX. (2013).
- ✓ Terrero, R.A., R. Coates, L. Aguiar, A.B. Pridmore, J. Alexander "Miami-Dade Case Study: Managing and Minimizing Pipeline Outages through the Use of Carbon Fiber", ASCE Pipelines Annual Conference, 2012 Aug 20: Miami, FL. (2012).
- ✓ Gipsov, M., A.B. Pridmore, "WSSC's Systematic Approach to the CFRP Liner Installation Process", ASCE Pipelines Annual Conference, 2012 Aug 21; Miami, FL. (2012).
- ✓ Pridmore, A.B., D. Caughlin, "Metopolitan Utilities District of Omaha PCCP Asset Management Advancements", ASCE Pipelines Annual Conference, 2012 Aug 21; Miami, FL. (2012).
- ✓ Rosenberg, D., A.B. Pridmore, "Combining CFRP Lining with Other Pipeline Rehabilitation Technologies", ASCE Pipelines Annual Conference, 2012 Aug 20; Miami, FL. (2012).
- ✓ Cribb, M., A.B. Pridmore "Proactive Upgrade of Steel Pipelines during Scheduled Outages" , ASCE Pipelines Annual Conference, 2012 Aug 21; Miami, FL. (2012).
- ✓ Bian, S., A.B. Pridmore, R. Loera, J. Marshall, "Pipeline Rehabilitation amidst Environmentally sensitive Location", ASCE Pipelines Annual Conference, 2011 Jul 23-27; Seattle, WA. (2011).
- ✓ Geraghty, M., A.B. Pridmore, J. Sanchez, *Transitioning from Leak Detection to Leak Prevention: Proactive Repair of Steel Pipelines Using Fiber Reinforced Polymer (FRP) Composites", ASCE Pipelines Annual Conference, 2011 Jul 23-27; Seattle, WA. (2011).
- Loera, R. A.B. Pridmore, How to Fund Pipeline Renewal: Transistioning from O&M funds to Capital Improvement Budgets", ASCE Pipelines Annual Conference, 2011 Jul 23-27; Seattle, WA. (2011).
- ✓ Bologna, G., A.B. Pridmore, M. Geraghty, J. Alexander, "Power Generation Case Study: Feasibility of Carbon Fiber and Alternate Repair Methods", ASCE Pipelines Annual Conference, 2011 Jul 23-27; Seattle, WA. (2011).
- ✓ Sleeper, W., S. Arnold, A.B. Pridmore, and H. Carr, "Carbon Fiber Reinforced Polymer (CFRP) As a Long Term Repair Solution-Based On the Reported Structural Properties of Tested CFRP samples Submerged in Water for Eight Years and In-Situ Field Inspection", ASCE Pipelines Annual Conference, 2010 Aug 28-29, Keystone, CO. (2010).
- ✓ Pridmore, A.B., G. Bologna, and H. Carr, "Predicting Lifecycles of Carbon Fiber Liners for Pipeline Renewal", NASST- No Dig Annual Conference, 2011 Mar 28-30; Washington DC. (2011).
- ✓ Yabrof, J. T. Jimenez, R. Borsheim, A.B. Pridmore, "Rapid Emergency Pipeline Repairs Utilizing CFRP" ASCE Pipelines Annual Conference, 2010 Aug 28-29; Keystone, CO. (2010).
- Gedalia, B., A.B. Pridmore, H. Carr, "New Application for Fiber Wrap Strengthening of Buried Pipelines" ASCE Pipelines Annual Conference, 2010 Aug 28-29; Keystone, CO. (2010).
- ✓ Pridmore, A.B. and V.M Karbhari, "Structural response of near surface mounted CFRP strengthened reinforced concrete bridg deck overhang" SSRP Report #2009-03, University of California, San Diego (2009).

✓ Pridmore, A.B. and V.M. Karbhari, "Evaluation of Prefabricated FRP Structural Formwork Bridge Deck Systems" Society for the Advancement of Material and Process Engineering (SAMPE) 53rd International Technical Conference (2008).

✓ Karbhari, V.M., Pridmore, A.B., Cheng, L., and C. Sikorsky, "FRP structural Stay-in-place Formwork as a Means of Rapid, Durable, and Cost Effective Construction of Bridge Decks" Federal Highway Administration

(FHWA) Accelerated Bridge Construction Conference (2008).

✓ Pridmore, A.B. and V.M. Karbhari, "Reliability and Durability of Prefabricated FRP Deck Formwork Systems" Society for the Advancement of Material and Process Engineering (SAMPE) 52nd International Technical Conference, 2007 June 3-7; Baltimore, MD. (2007).

Adrian Muela

LinkedIn: www.linkedin.com/pub/adrian-muela/12/b07/2a/

Background Experience:

Adrian has over 12 years of experience in the structural repair industry, with projects in the Petrochemical, Nuclear Power, Commercial, and Municipal markets. His experience as a project manager includes organizing, preplanning and executing successful projects ranging from \$100K - \$4.5M in revenue. Adrian specializes in project management of Carbon-Fiber Reinforced Polymer installation for pipe rehabilitation while being responsive to tight schedule constraints due to guick turnaround demands of the piping systems.

Core Competencies:

- Project Management
- **Budgeting and Scheduling**
- Job Cost Management
- Site Set-up and Logistics
- Quality Control Management
- Subcontractor / Supplier Relationships
- Safety Management
- Industrial Relations

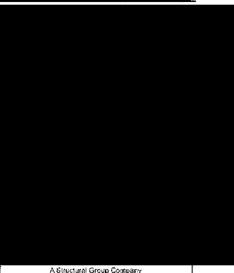
Employment History:

- Structural Preservation Systems, LLC Jan 2010 Present
 - Project Manager, Oct 2015 Present
 - Project Engineer, July 2010 Sept 2015
 - o Field Technician, Jan 2010 July 2010
- Metro Ready Mix May 2008 July 2009
 - Assistant Plant Manager, Feb 2009 July 2009
 - Quality Control Technician, May 2008 July 2009
- MT Testing Company June 2007 Feb 2008
 - Field and Lab Concrete Testing Technician

Project Experience:

Action Pipeline - \$2,111,100 Owner: City of Tucson Water

Scope: CFRP Repair of 26 – 20' Segments of 54in PCCP



EDUCATION

Bachelor of Science -Concrete Industry Management with a Minor In Business Administration -Middle Tennessee State University - May 2008

AREAS OF EXPERTISE:

Concrete Repair, Carbon Fiber Pipe Rehabilitation, Corrosion Control, Cathodic Protection, Waterproofing, Equipment Foundations, Petrochemical Industry Special Structures Rehab -Sulfur Pits, Cokers, Cooling Towers

YEARS OF EXPERIENCE

12 years

YEARS WITH FIRM

12 years



A Structural Group Company

Adrian Muela

Project Manager

Project Experience Continued:

Waukegan Effluent Forcemain - \$2,297,000
 Owner: North Shore Water Reclamation District

Scope: CFRP Repair of 54 in PCCP

Surry Nuclear Plant - \$2,400,000

Owner: Dominion Power

Scope: CFRP repair to Unit 1&2 circulating water pipes

PPL Montana Colstrip - \$1,425,000

Owner: Talen Energy

Scope: CFRP repair to 72" PCCP & 54" steel pipe

1744 D Street NE Sewer Strengthening - \$2,600,000

Owner: DC Water

Scope: CFRP repair on 22' Brick Sewer Pipe

South Texas Project - \$1,000,000
 Owner: South Texas Nuclear Project

Scope: CFRP repair for 138" circulating water pipes for Unit 2

Plaza East Deck & Garage - \$4,500,000

Owner: Plaza East Condominium

Scope: Plaza Deck, Pool & Garage Rehabilitation

Miami-Dade Water 54" PCCP - \$1,500,000

Owner: City of Miami-Dade

Scope: Repaired 54-inch water transmission line using CFRP

FPL Turkey Point Intake Cathodic Protection – \$4,300,000

Owner: Florida Power & Light

Scope: Impressed Current Cathodic Protection install in Unit 3&4 intake structure

Shell 36201 Compressor Foundation - \$455,000

Owner: Shell Oil Company

Scope: Compressor Foundation Rehabilitation



Stan Boshart, Project Manager Pipeline Solutions

Education

Texas A&M University, Commerce - Bachelor of Science

Areas of Expertise

Nine years of experience in infrastructure repair market with a focus on Power Plant Outages and Oil and Gas Refinery Shut Downs. Managed 100+ projects involving pipeline upgrades, carbon fiber installation, concrete repair, and specialty coating systems.

Relevant Project History

- ✓ PSEG Hope Creek Nuclear Generating Station, Carbon Fiber Pipeline Upgrade \$1.2M
- ✓ Oak Ridge Nuclear Laboratory, Carbon Fiber Pipeline Upgrade \$1.3M
- ✓ APS Cholla Station, Carbon-Fiber Pipeline Upgrade \$1.3M
- ✓ Miami-Dade Water & Sewer, Carbon Fiber Pipeline Upgrades \$500k
- ✓ City of Tucson, Carbon Fiber Pipeline Upgrade \$500k
- ✓ City of Phoenix, Carbon Fiber Pipeline Upgrade \$200k
- ✓ PNM San Juan Generating Station, Carbon Fiber Pipeline Upgrade \$2.2M
- ✓ Louisville Water Company, Carbon Fiber Pipeline Upgrade, \$800k
- ✓ DC Water RAS Pipeline, Carbon Fiber Pipeline Upgrade, \$713k
- ✓ WSSC Rockville, Carbon Fiber Pipeline Upgrade, \$1.3M
- ✓ Turkey Point Nuclear Generating Station, Cathodic Protection Installation, \$3.7M
- ✓ Chevron El Segundo, Concrete Repair, \$3.3M

SERGIO LECHUGA

STRUCTURAL SUPERINTENDENT

Background Experience:

Sergio Lechuga has 19 years of experience in the construction rehabilitation industry. He has been involved in numerous projects in the commercial and public markets. In addition, his duties consist of supervise employees on multiple jobs to complete projects requirements

YEARS OF EXPERIENCE:

• 19 Years

and creates 2 week look ahead schedules; Develops specific goals and plans to prioritize, organize and accomplish the work; Accurately determinates the amount of material needed to complete all task; Assures that all work is completed per contract specifications; Trains employees in construction methods, operation equipment, safety procedures and company polices; Supervises subcontractor personnel to assure they are performing to their schedule and follow Structural's safety standers.

Areas of Expertise:

- Concrete Repairs
- FRP Strengthening
- Post Tension Repairs
- Waterproofing
- Epoxy Injection
- Coatings
- Fireproofing
- Sandblast
- Hydroblast

Professional Participation:

- Fireproofing Standards, Testing, and Inspection (ICC)
- Reinforced Concrete Course (ICC)

Past Positions:

- Laborer Fibrwrap 2001 2003
- Leadman Fibrwrap -2004 2007
- Foreman Fibrwrap 2008 2013
- Superintendent Fibrwrap 2014 2015
- Superintendent STRUCTURAL 2015-2020

Project Experience:

- NAPI 210 inch Pipe Farmington NM 2019 / 2020, 1.5 Million
- Dominion Surry Nuclear Power Plant Unit 2 Safety Related Cooling Line Fall Outage 2019, 5 Million
- STP (South Texas Project)Nuclear Power Plant Fall outage 2019, 1.8 Million
- Andeavor Port OF Long Beach Terminal Piles 2019, 200K
- IH 27 Bridges CFRP Reinforcement Plainview TX 2019, 1.5 Million
- Palo Verder Nuclear Power Plant Spring Outage 2019, 2 Million
- Hatch Nuclear Power Plant Unit 2 outage 2019, 400K
- Entergy Waterford 3 Nuclear Generating Station Outage 2019, 550K
- STP (South Texas Project)Nuclear Power Plant Unit 1 Fall outage 2018, 2 Million
- Dominion Surry Nuclear Power Plant Unit 2 Safety Related Cooling Line Fall Outage 2018, 5.5 Million
- College Of The Desert Retrofit 2018, 800K
- Waco City of Phoenix Pipe #63, 150K
- Miami Fort Power Station 2018 1200 LF 132 Inch Pipe Rehabilitation, 2.7 Million
- OCSD (Orange County Sanitation District) 3200 LF 84 inch Pipe Rehabilitation, 3 Million

Adolfo Cepeda

STRUCTURAL Superintendent

Background Experience:

Adolfo Cepeda has 17 years of experience in the construction rehabilitation industry. He has performed numerous repair projects for commercial, public and nuclear infrastructure. He is responsible for overseeing daily operations at worksite to ensure the completion of projects in a safe and efficient manner.

Areas of Expertise:

- Concrete Repairs
- FRP Strengthening
- Post-Tension Repairs
- Waterproofing
- Epoxy Injection
- Coatings
- Fireproofing
- Sandblasting
- Hydroblasting

Past Positions:

- STRUCTURAL Superintendent August 2005 Present
 - Manage/lead large project crews throughout all phases of work scope (dewatering, surface preparation and CFRP installation)

Project Experience:

- DTE Fermi Nuclear, Spring 2022, Monroe, MI Pipe Strengthening of (13) 144" PCCP segments with CFRP
- Braidwood CWBD SLC Spring 2021, Braceville, IL Pipe Strengthening of 48" PCCP with SCL and CFRP (540 Total LF)
- GLWA 7 Mile Winter 2021, Detroit, MI Emergency pipe strengthening of (11) 42" PCCP segments with CFRP
- Surry Power Station Safety Related Pipe Repairs (Various Outages from 2018 2021), Surry,
 VA Safety Related Pipe Strengthening of Steel Inlet and Outlet Pipes
- APS Palo Verde Pipe Strengthening (Various Outages from 2019 2022), Tonopah, AZ CFRP Repairs to 96" 144" PCCP Segments in Circ Water Inlet and Outlet Pipes
- Almaden Valley Pipeline 78-inch Diameter PCCP Anderson Valley Pipeline Spring 2018, Santa Clara Valley Water District – 80 PCCP Pipe Segment Rehabilitation with V-Wrap CFRP System

TRAINING:

- Confined Space: Certification
- Abrasive Blasting Operator: Certifications
- Hazard Communication/GHS (HAZCOM): Awareness
- FRP Installer Certification: Modules 1-7
- FRP Carbon fiber Reinforcement Technician (SME Verified)
- OSHA 10 Construction Safety & Health
- · OSHA 30 Certification
- Nuclear Safety Culture and SCWE

YEARS OF EXPERIENCE:

• 17 years

YEARS WITH THE FIRM:

• 17 years



Jason Alexander, VP Operations Pipeline Solutions

Education

California State University, Fullerton - Bachelor of Science

Areas of Expertise

Ten years of experience in infrastructure repair market managing operations of over \$250 million in project work. Managed 100+ projects involving pipeline upgrades, carbon fiber installation, concrete repair, and specialty coating systems.

Relevant Project History

- ✓ PSEG Hope Creek Nuclear Generating Station, Carbon Fiber Pipeline Upgrade \$1.2M
- ✓ Oak Ridge Nuclear Laboratory, Carbon Fiber Pipeline Upgrade \$1.3M
- ✓ APS Cholla Station, Carbon Fiber Pipeline Upgrade \$1.3M
- ✓ Constellation Energy Brandon Shores, Carbon Fiber Pipeline Upgrades \$8.2M
- ✓ Washington Suburban Sanitary Commission, Carbon Fiber Pipeline Upgrades \$5.5M
- ✓ Miami-Dade Water & Sewer, Carbon Fiber Pipeline Upgrades \$4.5M
- ✓ City of Tucson, Carbon Fiber Pipeline Upgrade \$500k
- ✓ City of Phoenix, Carbon Fiber Pipeline Upgrade \$200k
- ✓ Tri-State Energy Craig Station, Carbon Fiber Pipeline Upgrade \$300k
- ✓ PNM San Juan Generating Station, Carbon Fiber Pipeline Upgrade \$1.1M
- ✓ Louisville Water Company, Carbon Fiber Pipeline Upgrade, \$800k
- ✓ DC Water RAS Pipeline, Carbon Fiber Pipeline Upgrade, \$713k
- ✓ PPL Martins Creek, Carbon Fiber Pipeline Upgrade, \$160k
- ✓ Intermountain Power, Carbon Fiber Pipeline Upgrades, \$2.5M
- ✓ PPL Colstrip Station, Carbon Fiber Pipeline Upgrades, \$3.5M
- ✓ Metropolitan Water District, Carbon Fiber Pipeline Upgrades, \$2.2M

Resume



Logan Trifone

Structural Technologies **Project Manager**

Background Experience:

Responsible for various aspects of project management and construction management at numerous industrial, nuclear and commercial job sites. Responsibilities included performing quantity take-offs, material procurement, equipment management, QA/QC implementation, production tracking, cost tracking, client communication/progress updates, submittal preparation, billing/invoicing, etc. Heavy involvement with pipe strengthening projects from both a field engineer and project management role. Experience with working in industrial and nuclear facilities all over the country.

EDUCATION

Master of Science in Civil/Structural Engineering – West Virginia University

YEARS OF EXPERIENCE

5 Years

YEARS WITH FIRM

• 5 Years

Certifications / Training:

- NACE CIP Level i
- EIT (Engineer in Training)
- 10-Hour OSHA Construction Safety & Health
- **OSHA 5810 Certification**
- CPR and First Aid Certification
- NANTeL/Nuclear Trainings
 - o Plant Access (Generic)
 - Fitness for Duty (Generic)
 - Confined Space (Plant Specific, Multiple Plants)
 - Fall Protection (Plant Specific, Multiple Plants)
 - FME (Plant Specific, Multiple Plants)
 - o Human Performance HU (Plant Specific, Multiple Plants)
 - o Equipment Clearance Order Holder (ECO) STP
- Structural University (SGU) Trainings
 - o Blood Borne Pathogens
 - HAZCOM Awareness
 - o FRP Installer Certification
 - o FRP Inspector Certification
 - Confined Space and Fall Protection Certifications
 - Nuclear Quality Assurance

Project Experience:

	Structural Technologies – Project Engineer / Project Manager	May 2017 – Present
•	DTE Fermi II Circ Water 144" Pipe Rehabilitation	February 2022
•	Duke Brunswick SW Header 28.5" CFRP Repairs	March 2022
•	Dominion Energy Surry SR Pipe Rehabilitation (Multiple Outages)	2018 - 2021
•	South Texas Project 138" CW Pipe Rehabilitation (Multiple Outages)	2018 - 2021
	Davis Besse Nuclear Spring 2020 PCCP and Joint Repairs	March 2020



Resume

•	Palo Verde APS PCCP Rehabilitation (Multiple Outages)	2019 - 2022
•	Tucson Water 54" PCCP Rehabilitation	January 2021
•	Exelon Braidwood Generating Station SCL and CFRP	2020 - 2021
•	GT Lohmeyer WWTP 60", 42", 36" PCCP Repairs	September 2020
•	Great Lakes Water Authority (GLWA) 48" CIP Rehabilitation	Jun-Aug 2020
•	Illinois Department of Transportation 54" Pipeline Rehabilitation	Oct - Nov 2018
•	Brandon Shores Emergency 54" Riser Repair	Dec 2018
•	Washington Suburban Sanitary Commission 36" Pipeline Rehabilitation	April 2019
•	Santa Clara Valley Water District 78" Pipeline	Jan-Mar 2018

SECTION 00 42 11 PROPOSAL TO CITY OF SAN JOSE

FOR

9850 - YARD PIPING IMPROVEMENTS PHASE 2 PROJECT

Name of Bidder:	Cascade, Inc.		
Contact Information of Bidder:	David Hicks		
	Submitter Name	Phone Number	Email
The representations herein are m	ade under penalty of perio	1177	

To: The City of San José, State of California

The undersigned, as bidder, declares that the only person or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm or corporation; that the bidder has thoroughly read and examined and has full knowledge of and understands all the provisions and contents of this proposal and the documents which must be attached hereto, the Plans and Specifications approved by the Director of Environmental Services on November 4, 2022, entitled 9850 - Yard Piping Improvements Phase 2 and approved for advertising and opening by the Director of Public Works on November 9, 2022, on file in the office of the Director of Environmental Services of the City of San José in City Hall, located at the San José-Santa Clara Regional Wastewater Facility, 700 Los Esteros Road, San Jose CA 95134; that the bidder has thoroughly examined said Plans and Specifications which are on file in the office of the Director of Public Works, and that the bidder has full knowledge of and understands said Plans and Specifications and the requirements thereof; and that the bidder has further read and understands, and has knowledge of the contents of any and all addenda to said Plans and Specifications on file; and that the bidder proposes and agrees, if this proposal is accepted, that the bidder will contract with the City of San José, in the form of the copy of the contract on file in the office of the Director of Environmental Services to do all the work and furnish all materials specified or referred to in the contract, in the manner and time therein prescribed, and according to the requirements of the City or Director of Environmental Services as therein set forth, to furnish the contract, bonds and insurance specified in the Specifications, and to do all other things required of the Contractor by the contract; and will take in full payment therefor the following price or unit prices as shown in the Schedule of Quantities on the next page(s).

If the bidder or other interested persons is a corporation, state legal name of corporation, also names of the President, Secretary, Treasurer, and the Manager thereof; if a partnership, state the name of the partnership, if one exists, also the names of all the partners comprising the partnership; if any of the partners are individuals, state the first and last name of every individual in full, if any of the partners are corporations, state for each such corporation, the information required above of corporations; if any of the partners are partnerships, state for each such partnership the information required above of partners; if the bidder or other interested person is a joint-venture, state the name of the joint venture, also names of all joint venturers comprising the joint venture; if any of the joint venturers are individuals, state the first and last name of every individual comprising the joint venture; if any of the joint venturers are corporations, state for each corporation the information required above of corporations; if any of the joint venturers are partnerships, state for each such partnership, the information required above of partners; if bidder or other interested persons is an individual, state first and last names in full.

If bidder is an <u>individual</u>, the bidder's signature shall be placed below; if bidder is an individual, doing business under a fictitious name, the name of the individual followed by the words "doing business under (insert the fictitious name)" shall be set forth above, together with the signature of the individual; if bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers of the corporation, authorized to sign contracts on behalf of the corporation, the corporate title; that is Vice-President, Secretary, etc., should be placed below the name of the officer and the corporate seal affixed; if bidder is a partnership, the legal name of the partnership, if one exists, shall be set forth above, together with the signature of the partner or partners authorize to sign contracts on behalf of the partnership; if any of the partners are corporations, execution for such partners shall be accomplished in accordance with the requirements set forth above for corporations; if any of the partners are partnerships, execution for

such partners shall be accomplished in accordance with the requirements set forth above for partnership; if bidder is a joint-venture, the legal name of the joint venture, if one exists, shall be set forth above for partnerships. If signature is by an agent other than an officer of a corporation, or member of a partnership or a joint venture, a Power of Attorney must be on file with the City Clerk prior to opening bids or submitted with the bid; otherwise, the bid may, at the City's option, be disregarded as non-responsive.

If this proposal shall be accepted and the undersigned shall fail to contract, and to give the Contractor's Bond For Faithful Performance and the Contractor's Payment Bond required by the specifications and contract and by law, and to provide all insurance as required by said contract, within eight (8) days after the bidder has received notice from the City of San José, the City may, at its option, determine that the bidder has abandoned his/her contract, and thereupon this proposal and the acceptance thereof shall be null and void, and the forfeiture of such security accompanying this proposal shall operate and the same shall be the property of the City of San José.

In accordance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding on contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board. Signing this Proposal on the signature portion thereof shall constitute signature of this Statement.

Accompanying this proposal are the following documents completely filled in by the bidder and the same are incorporated herein by reference;

- 1. Cash, a cashier's check or a certified check made payable to City, or a bidder's bond executed by an admitted surety insurer naming the City as beneficiary, in an amount equal to at least ten percent (10%) of the total amount bid including all alternatives.
- 2. A "List of Subcontractors".
- 3. A "Statement of Bidder's Experience".

City may at its option, request additional supplemental information after bid opening.

Bidder understands that the City reserves the right to reject any or all bids and to waive any informalities in the bidding.

The undersigned, as bidder, declares under penalty of perjury as follows.

- 1. In listing subcontractors in this bid, the bidder did not discriminate or give any preference to any person or firm based on race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity, or national origin. The bidder understands that any such discrimination or preference violates Chapter 4.08 of the Municipal Code.
- 2. Before submitting its bid, (a) the bidder affirmatively checked to confirm it had all the procurement documents including addenda, notices, requests for information and the City's response to any requests for information, (b) the bidder reviewed such procurement documents and is knowledgeable about their contents and (c) the bid is based on and incorporates all such procurement documents.

Execution of the Non-Collusion Affidavit constitutes execution of this Bid Proposal including the above statement of nondiscrimination and, with the exception of the Bidder's Bond, no other signatures will be required.

NONCOLLUSION AFFIDAVIT

Project Title:9850 - YARD PIPING IMPROVEMENT	S PHASE 2	
Mountain Cascade, Inc.	, being first dul	ly sworn, deposes and says that he/she is
the party making the foregoing bid that the bid is not made partnership, company, association, organization, or corpora bidder has not directly or indirectly induced or solicited any or indirectly colluded, conspired, connived, or agreed with shall refrain from bidding; that the bidder has not in any macommunication or conference with anyone to fix the bid profit, or cost element of the bid price, or of that of any oth awarding the contract of anyone interested in the proposed further, that the bidder has not, directly or indirectly, submacontents thereof, or divulged information or data relative the partnership, company, association, organization, bid depose collusive or sham bid. In accordance with Title 23, United States Code, Section he/she has not, either directly or indirectly, entered into any any action in restraint of free competitive bidding in connectable certification may subject certifier to criminal prosecut. The undersigned declares under penalty of perjunaccompanying documents are true and correct.	ation; that the bid is y other bidder to purany bidder or anyonanner, directly or in ice of the bidder or the bidder, or to secut contract; that all stated his or her bid pareto, or paid, and bitory, or to any menton 112, the bidder her agreement, particition with this contribution.	genuine and not collusive or sham; that the at in a false or sham bid, and has not directly ne else to put in a sham bid, or that anyone directly, sought by agreement, any other bidder, or to fix any overhead, are any advantage against the public body atements contained in the bid are true; and price or any breakdown thereof, or the will not pay, any fee to any corporation, inber or agent thereof the effectuate a ereby states, under penalty of perjury, that pated in any collusion, or otherwise taken ract. Bidders are cautioned that making a nation contained in this proposal and all
01/12/23	City Business Lic. No	
Executed on	Expiration Date:	03/15/2023
	State Contractor Lic.	No.: 422496
Mountain Cascade, Inc.	Expiration Date:	05/31/2024
Legal Company Name	Classification:	A & HAZ
	DIR Registration Nur	nber: 1000005190
Corporation	Expiration Date:	06/30/2024
Indicate Type of Entity: Sole Proprietorship,	Federal I. D. No.:	94-2806169
Partnership (General/Limited Partners), Corporation, Joint Venture, etc.	Address:	
	Telephone:	
By: David Hick. Title: V.P. of Estimating/Secretary		timating@mountaincascade.com

BID SCHEDULE OF QUANTITIES

for 9850 – YARD PIPING IMPROVEMENTS PHASE 2

ltem	Spec. Section	Description	Unit	Quantity	Unit Price	Extension
Base B	Bid Items		*.11.41			
1	All	Completion of all Work included as part of the Contract Documents, except as specified under Items 2 through 18, for 9850–Yard Piping Improvements–Phase 2 Project.	LS	1	740,000 740,000	740,000
2	31 23 11	Cost for providing all shoring and bracing on all Bid Items below including but not limited to that as required by Sections 6700-6708 of the Labor Code.	LS	1	100,000	100,000
3	01 29 00 Part 1.09 and 1.10	Mobilization/Demobilization.	LS	1	500,000	500,000
4	01 11 00 Part 1.04B.1	Rehabilitation of the 120" Raw Sewage.	LS	1	400,000	400,000
5	01 11 00 Part 1.04B.2	Rehabilitation of the 84" Primary Effluent Pipe.	LS	1	685,000	685,000
6	01 11 00 Part 1.04B.3	Rehabilitation of the 84" Secondary Effluent Pipe.	LS	1	290,000	290,000
7	01 11 00 Part 1.04B.4 and not included in Bid Item 8 and 9	Rehabilitation of the 48" Santa Clara Force Main.	LS	1	DH -5,301,000 5,301,000	5,301,000
8	01 11 00 Part 1.04B.4.b	All work associated with the SCFM Temporary Bypass Piping System and the Lamplighter Force Main Temporary Bypass Piping System.	LS	1	1,600,000	1,600,000
9	01 11 00 Part 1.04B.4.d and Part 1.04B.4.e	All work associated with the furnishing and installation of the bulkhead gate for the 66" RS at the Milpitas Structure and the bulkhead gate and guide system for the 84" RS at the Santa Clara Influent Structure 1.	LS	1	600,000	600,000
10	01 11 00 Part 1.04B.5	Rehabilitation of the 102" Nitrification Influent Pipe and the Nitrification Influent Junction Structure.	LS	1	260,000	260,000

Item	Spec. Section	Description	Unit	Quantity	Unit Price	Extension
11	01 11 00 Part 1.04B.6	Rehabilitation of the 102/96/78/66" Raw Sewage Pipe.	LS	1	3,900,000	3,900,000
12	01 11 00 Part 1.04B.7	Modifications/Improvements to the Effluent Junction Structure 1.	LS	1	240,000	290,000
13	01 11 00 Part 1.04B.7.h	Reinforcement of Existing Wood Closure on Effluent Junction Structure 1	LS	1	200,000	200,000
14	01 11 00 Part 1.04B.8	Modifications/Improvements to the Fish Screening Structure.	LS	1	300,000	300,000
15	01 11 00 Part 1.04B.9	Modifications/Improvements to the No.3 Water Wet Well.	LS	1	20,000	20,000
16	01 11 00 Part 1.04B.10	Allowance 1 – Maintenance/repair of the existing Settled Sewage (SES) Reroute System.	Force Account	1	\$300,000	\$300,000
17	01 11 00 Part 1.04B.11	Allowance 2 – Formal partnering.	Force Account	1	\$15,000	\$15,000
18	01 11 00 Part 1.04B.12	Allowance 3 – Contractor Assistance for 24" and 30" WTR3 Water Pipe Condition Assessment	Force Account	1	\$200,000	\$200,000

TOTAL BASE BID AMOUNT: 15,701,000

END OF SECTION

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SECTION 00 42 12 BIDDER'S BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _	Mountain Cascade, Inc.	as PRINCIPAL, and
_Liberty 1	Mutual Insurance Company	, a corporation duly organized under the laws of the
State of _	MA	and duly licensed to become sole surety on bonds required or
authorized	by the State of California,	as SURETY, are held and firmly bound unto the City of San José
(hereinafte	er called the "City"), in	the penal sum of TEN PERCENT (10%) OF THE TOTAL
ÀGGREC	ATE AMOUNT OF THE	BID (including all bid alternates) of the Principal above named,
submitted	by said Principal to the Ci	ty of San José, for the work described below; for the payment of
which sun	n in lawful money of the Un	ited States, well and truly to be made, we bind ourselves, our heirs,
executors,	administrators and successor	ors, jointly and severally, firmly by these presents. In no case shall
the liabili	ty of the Surety hereunder	exceed the sum of TEN PERCENT (10%) OF THE TOTAL
		ID, including all bid alternates.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That whereas the Principal has submitted the above mentioned bid to the City of San José, for certain construction specifically described as follows, for which bids are to be opened in the Office of the Director of Public Works, City of San José, City Hall, 200 E. Santa Clara St., 5th Floor, San Jose, CA 95113-1905, for

9850 - YARD PIPING IMPROVEMENTS PHASE 2

NOW, THEREFORE, if the aforesaid Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to Principal for signature, enters into a written contract, in the prescribed forms, in accordance with the bid, and files a Faithful Performance Bond and a Contractor's Payment Bond, and files the required insurance policies with the City, all as required by the specifications and the contract or by law, then the obligation shall be null and void; otherwise it shall be and remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

In the event suit is brought upon this bond by the Obligee and judgement is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN	WITNESS	WHEREOF,	we 1	nave	hereunto	set c	ur	hands	on	this	3rd	(lay	of
_Ja	nuary	, 20 <u>23</u> .												
PRI	NCIPAL					SUF	RET	Y						
	ountain Cas al Company		-			Lega	al C	Autual Ir ompany Corpora	/ Nan	ne	ompany			
Ву		, Da	vid Hi	<u>c</u> ks		Ву								
Title	V.P. of	Estimating/S	ecreta	ry		Title	, \	/ictoria	M. Ca	ampbe	ell, Attorn	ey-in-F	act	
						(Att	ach	Notariz	ation	Ackn	owledge	ment)		
Bus	iness Addres	S 555 Excha	nge Co	ourt		Bus	ines	s Addre	ss <u>2</u>	55 Ca	lifornia S	<u>st S</u> te	950	
Liv	vermore, C	A 94550				Sa	n Fr	ancisco	CA	9411	1			

END OF SECTION

NOTARY ACKNOWLEDGEMENT (SURETY)

Use this form or substantive equivalent

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

State of California			Λ	
County of)		6)	
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On	, before me,	(%)		, personally
appeared		Λ	, who proved	d to me on the basis of
	ice to be the person(s) whose	sme(s) is/are subs	scribed to the with	in instrument and
_		<i>y</i> /		
acknowledged to n	ne that he/she/they executed th	e same in his/her/i	their authorized ca	apacity(ies), and that
by his/her/their sig	nature(s) on the instrument the	person(s), or the	entity upon behal	f of which the
person(s) acted, ex	ecuted the instrument.			
I certify under the	PENALTY OF PERJURY und	der the laws of the	State of Californ	ia that the foregoing
paragraph is true a	nd correct.			
	1 1 00 1 1			
WITNESS my han	nd and official seal.			
Ciamatana		(Coal)		
Signature Notary I	Oublia	(Seal)		
INDIALY I	uone			

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A notary public or other officer completing this certification	ate verifies only the identity of the individual who signed the
document to which this certificate is attached, and not the	ne truthfulness, accuracy, or validity of that document.
State of California)	
County of Orange	
O- 1AN 0 2 2022 1-4-4	ade Madana Debita
On JAN 0 3 2023 before me, L. Cla	
Date	Here Insert Name and Title of the Officer
personally appearedVictoria M. Campbell	
	Name(s) of Signer(s)
subscribed to the within instrument and acknowl	evidence to be the person(s) whose name(s) is/are ledged to me that he/she/they executed the same in is/her/their signature(s) on the instrument the person(s), sted, executed the instrument.
ı	I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
	WITNESS my hand and official seal.
L. CLARK	
Notary Public - California Los Angeles County	Signature
Commission # 2336730 My Comm. Expires Nov 28, 2024	Signature of Notary Public
Place Notary Seal Above	
Though this section is optional, completing this	TIONAL information can deter alteration of the document or form to an unintended document.
Description of Attached Document	i day o
Title or Type of Document:	Document Date: JAN 0 3 20
Number of Pages: Signer(s) Other Than	n Named Above:
Capacity(ies) Claimed by Signer(s)	
Signer's Name:	Signer's Name:
Corporate Officer — Title(s):	Signer's Name: Corporate Officer — Title(s):
☐ Partner — ☐ Limited ☐ General	□ Partner — □ Limited □ General
☐ Individual	□ Individual □ Attorney in Fact
Truetee Conceniator	
□ Trustee □ Guardian or Conservator □ Other	☐ Trustee ☐ Guardian or Conservator
☐ Trustee ☐ Guardian or Conservator ☐ Other:Signer Is Representing:	☐ Trustee☐ Guardian or Conservator☐ Other:



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

Liberty Mutual Insurance Company The Ohio Casualty Insurance Company West American Insurance Company

Certificate No: 8205201-971932

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Khoi Tran;
Victoria M. Campbell
all of the city of Los Angeles state of CA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.
IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this
Liberty Mutual Insurance Company The Ohio Casualty Insurance Company West American Insurance Company West American Insurance Company West American Insurance Company West American Insurance Company West American Insurance Company The Ohio Casualty Insurance Company West American Insurance Company The Ohio Casualty Insurance Company The Ohio Casualty Insurance Company The Ohio Casualty Insurance Company West American Insurance Company The Ohio Casualty Insurance Company The Ohio Cas
State of PENNSYLVANIA ss County of MONTGOMERY
On this 5th day of April , 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.
IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.
Commonwealth of Pennsylvania - Notary Seal Teresa Pastella, Notary Public Montgomery County My commission number 1126044 Member, Pennsylvania Association of Notaries By: Line Lin
This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:
State of PENNSYLVANIA ss County of MONTGOMERY On this <u>5th</u> day of <u>April</u> , <u>2021</u> before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer. IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written. PAS
ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.
Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-infact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.
Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with he same force and effect as though manually affixed.
, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do nereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and las not been revoked.
N TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 3rd day of January , 2023.
1912 C TORPORATE TO THE TOP OF TH

SECTION 00 43 25 STATEMENT OF BIDDER'S EXPERIENCE

The bidder must provide a minimum of three (3) completed projects as references. The three (3) references must demonstrate the bidder's experience and ability to complete the construction work as required under the terms of the Contract. The three (3) completed projects used as references must meet the following requirements

- Requirement No. 1: The bidder must have been the general contractor on each of the projects.
- The projects must have involved construction substantially similar to the construction for this Project. Requirement No. 2: "Substantially similar" means the following:
 - The original contract amount related to repair of existing pipelines was at least \$2.5 Million; and a)
 - The projects must have involved repair of existing pipelines with a minimum diameter of 36b) inches utilizing any of the following methods: cured-in-place pipe rehabilitation, geopolymer mortar rehabilitation, carbon fiber-reinforced rehabilitation, concrete pipe crown repair, or epoxy coating of inside diameter of pipeline.
- The substantial completion date for each project must have been after January 2010. Requirement No. 3:
- The bidder must have completed construction of at least two (2) of the projects at an operating Requirement No. 4: wastewater treatment facility.

Project Name/Location	Owner Name and Contact Information	Scope of Work	General Contracto r (Y/N)?	Diameter of existing pipelines (Inches)	Methods used for repair of existing pipelines?	Completed within an operating wastewater treatment facility (Y/N)?	Initial Contract Amount related to repair of existing pipelines	Substantial Completion Date
SEE ATTACH STATEMENT EXPERIENCE	OF BIDDER	S	Yes			Yes		
			Yes			Yes No	-	
			Yes			Yes		

3 1 2 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	Yes		Yes		
	No 🔲		No		
				·	

END OF SECTION

STATEMENT OF BIDDER'S EXPERIENCE

PROJECT NAME/LOCATION	OWNER NAME AND CONTACT INFORMATION	SCOPE OF WORK	GENERAL CONTRACT OR (Y/N)?	DIAMETER OF EXISTING PIPELINE (INCHES)	METHODS USED FOR REPAIR OF EXISTING PIPELINES?	COMPLETED WITHIN OPERATING WASTEWATER TREATMENT FACILITY (Y/N)?	INTIAL CONTRACT AMOUNT	SUBSTANTIAL COMPLETION DATE
Sewer Rehab & Sewer Main Reconstruction- Merced Street- Fresno, CA	City of Fresno Bill Herr 559-621-5614 bill.herr@fresno.gov	Cured in Place pipe rehabilitation in existing sewer mains, manhoile rehab, modification of interfering storm drain facilities	Yes	36",42" & 48"	cured-in-place pipe rehabilitation geopolymer mortar rehabilitation 48" manholes	No	\$7,398,497	Sept. 2020
Sewer Replacement & Rehab- Ashlan Avenue - Fresno, CA	City of Fresno Brian Kujauwski 559-621-5294 brian.kujauwski@fresno.gov	Removal and construction of existing and new sewr mains and manholes, construction of cured-in place liner, removal of existing 33" and replace with 36"	Yes	36"	cured-in-place pipe rehabilitation geopolymer mortar rehabilitation 48" manholes	No	\$5,427,752	Oct. 2014
Almaden Valley Inspection & Rehabiliation Project San Jose, CA	Santa Clara Valley Water District Christian Ruiz 408-630-2846 cruiz@valleywater.org	perform internal pipeline repair including carbon fiber reinforcement at three sites	Yes	84 ⁿ	carbon fiber-reinforced rehabilitation	No	\$6,376,000	Milestone 9B completed Jan.2023
WPCF Primary Clarifier Conversion Hayward, CA	City of Hayward Suzan England 510-583-4400 suzan.england@hayward-ca.gov	modifications to convert an existing flotator-thickner tank into a fourth primary clarifier, work also includes new sludge and scum pumps and related piping geopolymer mortar rehabilitation	Yes	* rectangle strucutres	geopolymer mortar rehabilitation drying beds	Yes	\$2,993,824	Oct. 2016
Digester Facilities Improvement Project San Lorenzo, CA	Oro Loma Sanitary District Jimmy Dang 510-481-6981 jdang@oroloma.org	construction of two new clyndrical concrete anaerobic digesters with concrete covers, misc. electrical, instrumentation modifications, geopolymer mortar rehabilitation in an operational project	Yes	* clyndrical strucutres	geopolymer mortar rehabilitation digester	Yes	\$7,197,490	Apr-15

SECTION 00 43 36 LIST OF SUBCONTRACTORS

Instructions:

- 1. Complete this form by providing the following information clearly and accurately: the name of the Subcontractor, its California state contractor's license number, Department of Industrial Relations (DIR) Registration number, location of business, and a brief description of the work it will perform.
- 2. The designation of Subcontractors is required as described in Section 2-1.15A of the City of San Jose Standard Specifications, July 1992.
- 3. Bidder's have 24 hours from the time of the Bid Opening to provide any corrections to the state subcontractor license numbers and/or the DIR Registration Number that were submitted with the original proposal.

NAME OF SUBCONTRACTOR	STATE SUBCONTRACTO R LICENSE NUMBER	DIR REGISTRATION NUMBER	LOCATION OR PLACE OF BUSINESS	PORTION (DESCRIPTION) OF WORK
Structural Technologies	989353	1000025676	Anaheim, CA	Carbon fiber lining
Pulman SST	866480	1000003194	Benecia, CA DH Benicia, CA	Apoxy lining
Rain for Rent	904992	1000007030	Oakley, CA	Bypass
Insitution Techo DH Technologies	758411	0H 16000018- 1000009689	Sautā Fe Springs, CA	CIPP
Ashlar Structural	1057900	1000463035	Nanuet, NY	Geopolymer lining

SECTION 00 43 36 LIST OF SUBCONTRACTORS

Instructions:

- 1. Complete this form by providing the following information clearly and accurately: the name of the Subcontractor, its California state contractor's license number, Department of Industrial Relations (DIR) Registration number, location of business, and a brief description of the work it will perform.
- 2. The designation of Subcontractors is required as described in Section 2-1.15A of the City of San Jose Standard Specifications, July 1992.
- 3. Bidder's have 24 hours from the time of the Bid Opening to provide any corrections to the state subcontractor license numbers and/or the DIR Registration Number that were submitted with the original proposal.

NAME OF SUBCONTRACTOR	STATE SUBCONTRACTO R LICENSE NUMBER	DIR REGISTRATION NUMBER	LOCATION OR PLACE OF BUSINESS	PORTION (DESCRIPTION) OF WORK

SECTION 00 43 36 LIST OF SUBCONTRACTORS

Instructions:

- 1. Complete this form by providing the following information clearly and accurately: the name of the Subcontractor, its California state contractor's license number, Department of Industrial Relations (DIR) Registration number, location of business, and a brief description of the work it will perform.
- 2. The designation of Subcontractors is required as described in Section 2-1.15A of the City of San Jose Standard Specifications, July 1992.
- 3. Bidder's have 24 hours from the time of the Bid Opening to provide any corrections to the state subcontractor license numbers and/or the DIR Registration Number that were submitted with the original proposal.

NAME OF SUBCONTRACTOR	STATE SUBCONTRACTO R LICENSE NUMBER	DIR REGISTRATION NUMBER	LOCATION OR PLACE OF BUSINESS	PORTION (DESCRIPTION) OF WORK
				M-14-2-

END OF SECTION





SECTION 00 91 13 ADDENDUM NO. 1

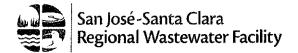
TO PROCUREMENT DOCUMENTS FOR THE

9850 - YARD PIPING IMPROVEMENTS PHASE 2

ISSUE DATE: 11/22/2022

Notice is given that the following changes are hereby made to the procurement documents for the above-referenced project.

THIS ADDENDUM CONTAINS 6 PAGES (Including attachments)



SPECIFICATIONS:

1. <u>Replace</u> the Notice to Contractors in its entirety with the Revised Notice to Contractors attached and included in this addendum (Addendum No.1).





SECTION 00 91 13 ADDENDUM NO. 2

TO PROCUREMENT DOCUMENTS FOR THE

9850 - YARD PIPING IMPROVEMENTS PHASE 2

ISSUE DATE: 11/29/2022

Notice is given that the following changes are hereby made to the procurement documents for the above-referenced project.

THIS ADDENDUM CONTAINS 2 PAGES (Including attachments)

Addendum No. 2 for the 9850 – Yard Piping Improvements Phase 2 Date: 11/29/2022

Page 1 of 2



SPECIFICATIONS:

- 1. Extend the filing of bids deadline from 3:00 p.m. on December 15, 2022 to 3:00 p.m. on January 12, 2023 (Addendum No.2).
- 2. Extend the question submittal deadline from December 8, 2022 at 3:00 pm to December 29, 2022 at 3:00 pm (Addendum No.2).



SECTION 00 91 13 ADDENDUM NO. 3

TO PROCUREMENT DOCUMENTS FOR THE

9850 - YARD PIPING IMPROVEMENTS PHASE 2

ISSUE DATE: 12/05/2022

Notice is given that the following changes are hereby made to the procurement documents for the above-referenced project.

THIS ADDENDUM CONTAINS 6 PAGES (Including attachments)



SPECIFICATIONS:

1. Replace the Notice to Contractors in its entirety with the Revised Notice to Contractors attached and included in this addendum (Addendum No.3).





SECTION 00 91 13 ADDENDUM NO. 4

TO PROCUREMENT DOCUMENTS FOR THE

9850 - YARD PIPING IMPROVEMENTS PHASE 2

ISSUE DATE: 12/19/2022

Notice is given that the following changes are hereby made to the procurement documents for the above-referenced project.

Approved By:

Dec 16, 2022

Mariana Chavez-Vazquez Deputy Director

THIS ADDENDUM CONTAINS 142 PAGES (Including attachments)



SPECIFICATIONS:

- 1. Replace Section 00 42 11 in its entirety with the revised Section 00 42 11 attached and included in this addendum (Addendum No. 4).
- 2. **Replace** Section 01 11 00 in its entirety with the Revised Section 01 11 00 attached and included in this addendum (Addendum No. 4).
- 3. **Replace** Section 01 14 00 in its entirety with the Revised Section 01 14 00 attached and included in this addendum (Addendum No. 4).
- 4. Replace Section 01 32 16 in its entirety with the Revised Section 01 32 16 attached and included in this addendum (Addendum No. 4).
- 5. Replace Section 01 35 25 in its entirety with the Revised Section 01 35 25 attached and included in this addendum (Addendum No. 4).
- 6. Replace Section 09 96 56 in its entirety with the Revised Section 09 96 56 attached and included in this addendum (Addendum No. 4).
- 7. Replace Section 31 23 19 in its entirety with the Revised Section 31 23 19 attached and included in this addendum (Addendum No. 4):
- 8. Add Section 33 13 13, attached and included in this addendum (Addendum No. 4).
- 9. Add Section 33 14 00, attached and included in this addendum (Addendum No. 4).
- 10.Add Section 40 05 19, attached and included in this addendum (Addendum No. 4).
- 11. Add Section 40 05 31.12, attached and included in this addendum (Addendum No. 4).
- 12.Add Section 40 05 61..23, attached and included in this addendum (Addendum No. 4).
- 13. Add Section 40 05 73.13, attached and included in this addendum (Addendum No. 4).



DRAWINGS:

- 1. **Replace** G-102-00 in its entirety with the Revised G-102-00 attached and included in this addendum (Addendum No. 4).
- 2. **Replace** G-103-00 in its entirety with the Revised G-103-00 attached and included in this addendum (Addendum No. 4).
- 3. **Replace** C-101-06 in its entirety with the Revised C-101-06 attached and included in this addendum (Addendum No. 4).
- 4. Add C-402-90, attached and included in this addendum (Addendum No. 4).
- 5. Replace C-501-90 in its entirety with the Revised C-501-90 attached and included in this addendum (Addendum No. 4).
- 6. **Replace** C-901-90 in its entirety with Revised C-901-90 attached and included in this addendum (Addendum No. 4).
- 7. Replace XC-401-61 in its entirety with the Revised XC-401-61 attached and included in this addendum (Addendum No. 4).
- 8. <u>Replace XC-402-61</u> in its entirety with the Revised XC-402-61 attached and included in this addendum (Addendum No. 4).
- 9. Add XC-403-61, attached and included in this addendum (Addendum No. 4).
- 10. **Replace** C-401-61 in its entirety with the Revised C-401-61 attached and included in this addendum (Addendum No. 4).
- 11. Add C-502-61, attached and included in this addendum (Addendum No. 4).
- 12. <u>Replace</u> S-403-61 in its entirety with the Revised XC-401-61 attached and included in this addendum (Addendum No. 4).
- 13. Add S-501-61, attached and included in this addendum (Addendum No. 4).





SECTION 00 91 13 ADDENDUM NO. 5

TO PROCUREMENT DOCUMENTS FOR THE

9850 - YARD PIPING IMPROVEMENTS PHASE 2

ISSUE DATE: 1/05/2022

Notice is given that the following changes are hereby made to the procurement documents for the above-referenced project.

Approved By:

Jan 5, 2023

Mariana Chavez-Vazquez Deputy Director

THIS ADDENDUM CONTAINS 39 PAGES (Including attachments)

SPECIFICATIONS:

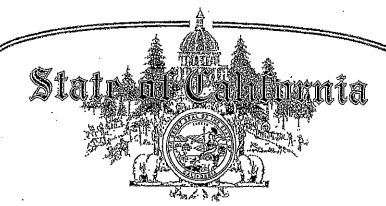
- 1. Replace Section 00 43 25 in its entirety with the Revised Section 00 43 25 attached and included in this addendum (Addendum No. 5).
- 2. <u>Replace</u> Section 01 11 00 in its entirety with the Revised Section 01 11 00 attached and included in this addendum (Addendum No. 5).
- 3. Replace Section 40 05 37.71 Part 2.02B in its entirety with the following (Addendum No. 5):
- 4. <u>Replace</u> Section 40 05 31.12 in its entirety with the Revised Section 40 05 31.12 attached and included in this addendum (Addendum No. 5).
- 5. Replace Section 40 05 61.23 in its entirety with the Revised Section 40 05 61.23 attached and included in this addendum (Addendum No. 5).
- 6. Replace Section 40 05 73.13 in its entirety with the Revised Section 40 05 73.13 attached and included in this addendum (Addendum No. 5).

DRAWINGS:

- 1. Add S-006-00, attached and included in this addendum (Addendum No. 5).
- 2. **Replace** C-402-90 in its entirety with the Revised C-402-90 attached and included in this addendum (Addendum No. 5).
- 3. **Replace** C-501-90 in its entirety with the Revised C-501-90 attached and included in this addendum (Addendum No. 5).
- 4. **Replace** C-901-90 in its entirety with Revised C-901-90 attached and included in this addendum (Addendum No. 5).
- 5. Replace XC-401-61 in its entirety with the Revised XC-401-61 attached and included in this addendum (Addendum No. 5).
- 6. <u>Replace XC-403-61</u> in its entirety with the Revised XC-403-61 attached and included in this addendum (Addendum No. 5).
- 7. Replace C-401-61 in its entirety with the Revised C-401-61 attached and included in this addendum (Addendum No. 5).
- 8. Replace C-402-61 in its entirety with the Revised C-402-61 attached and included in this addendum (Addendum No. 5).
- 9. <u>Replace</u> C-403-61 in its entirety with the Revised C-403-61 attached and included in this addendum (Addendum No. 5).
- 10. <u>Replace</u> S-402-61 in its entirety with the Revised S-402-61 attached and included in this addendum (Addendum No. 5).

Addendum No. 5 for the 9850 – Yard Piping Improvements Phase 2

Date: 1/5/2023 Page [2] of [39]



SECRETARY OF STATE

CERTIFICATE OF STATUS DOMESTIC CORPORATION

I, BILL JONES, Secretary of State of the State of California, hereby certify:

That on the 31ST day of MARCH, 1982, MOUNTAIN CASCADE, INC. became incorporated under the laws of the State of California by filing its Articles of Incorporation in this office; and

That no record exists in this office of a certificate of dissolution of said corporation nor of a court order declaring dissolution thereof, nor of a merger or consolidation which terminated its existence; and

That said corporation's corporate powers, rights and privileges are not suspended on the records of this office; and

That according to the records of this office, the said corporation is authorized to exercise all its corporate powers, rights and privileges and is in good legal standing in the State of California; and

That no information is available in this office on the financial condition, business activity or practices of this corporation.



IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this day of March 5, 1999.

BILL JONES

Secretary of State

Ø



CONTRACTORS STATE LICENSE BOARD

Pursuant to Chapter 9 of Division 3 of the Business and Professions Code and the Rules and Regulations of the Contractors State License Board, the Registrar of Contractors does hereby issue this license to:

MOUNTAIN CASCADE INC

License Number 422496

to engage in the businessor act in the capacity of a contractor in the following classifical

A - GENERAL ENGINEER NG CONTRACTOR HAZ - HAZARDOUS SUBSTANCES, REMOVAL B - GENERAL BUILDING CONTRACTOR

Withess my hand and seal this day

February 16, 2018

Issued May 10, 1982

This license is the property of the Registrar of Contractors, is not transferable, and shall be returned to the Registrar upon demand when suspended, revoked, or invalidated for any reason. It becomes void if not renewed.

David R. Fogt, Registrar of Contractors



13L-24 (REV. 03/15)

j

Contractor Information	Registration History	ı History
Legal Entity Name	Effective Date	Expiration Date
MOUNTAIN CASCADE INC.	06/21/18	06/30/19
Legal Entity Type Corporation	05/09/17	06/30/18
Status Active	06/06/16	06/30/17
Registration Number	06/09/15	06/30/16
Registration effective date	01/12/15	06/30/15
07/01/22 Registration expiration date	07/01/19	06/30/20
06/30/24	07/01/20	06/30/22
PO BOX 5050 LIVERMORE 94551 CA United States of A	07/01/22	06/30/24
Physical Address		
Email Address	į	1.280 -1 -40 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -

CONTRACTORS STATE LICENSE BOARD ACTIVE LICENSE Deerse Number 422496 EMPANTMENT OF SON SUMMER AT FAIRE

estimating@mountaincascade.com

MOUNTAIN CASCADE INC.

Trade Name/DBA

License Number (s)

CSLB:422496 CSLB:422496

Entry CORP

BUSINESS NAME MOUNTAIN CASCADE INC

Classification(s) A HAZ

Expiration Date 05/31/2024

www.csib.ca.gov

Legal Entity Information

Corporation Entity Number:

Federal Employment Identification Number: President Name:

Vice President Name:

Treasurer Name:

Secretary Name: CEO Name: Agency for Service:

Michael Lee Fuller David Hicks

Michael Duke Fuller

942806169 C1107487

Roger Williamson

Schelly Frades



Certification by Secretary of Corporation Resolution

At the meeting of the Directors of Mountain Cascade, Inc., a corporation organized and existing under the laws of the State of California, duly called and held in accordance with the articles of incorporation and by-laws of the corporation at its office on January 15,2021 at which a quorum of the directors were present, the following resolution was adopted to wit:

Resolved, that Michael Lee Fuller, CEO, and/or Michael Duke Fuller, President, and/or David Hicks, Estimating Vice President and Secretary, and/or Schelly Frades, Treasurer, and/or Roger Williamson, Executive Vice President, is/are hereby authorized to sign contracts/agreements in the name of and on behalf of Mountain Cascade, Inc. The following individuals were also elected Assistant Secretary of the Corporation: Schelly Frades and Diana Fuller.

I, David Hicks Secretary of Mountain Cascade, Inc., do hereby certify that I am the Secretary of said corporation and that the above is a full, true and correct copy of a resolution of the Board of Directors of said corporation, duly adopted at the meeting held on January 15, 2021 and that said resolution has not been revoked or rescinded.

In witness whereof, I have hereunto subscribed my name and affixed the seal of said corporation.

David Hicks Secretary

Date

installation videos, submitted electronically for review and acceptance prior to final payment.

1.05 QUALIFICATIONS

A. Also see section 00 43 25 for bidder's required experience.

B. CONTRACTOR qualifications:

- The CONTRACTOR performing the work shall be fully qualified, experienced and equipped to complete this work expeditiously and in a satisfactory manner and shall be an approved installer of CFRP as certified and licensed by the Manufacturer.
- CONTRACTOR must meet or exceed the criteria contained within this section.
 Documentation, including on-site superintendent resumes, must be submitted with the proposal to fully demonstrate the minimum requirements as outlined within this section. Failure to provide the required information may result in determining a CONTRACTOR to be non-responsive.
- 3. The CONTRACTOR must have completed a minimum of five (5) independent installations of CFRP involving internal pipe rehabilitation projects in the past five (5) years. In addition, the CONTRACTOR shall have in place a minimum of five (5) CFRP systems used for internal rehabilitation of wastewater pipelines including CFRP layers and epoxy within the past five (5) years. For a project to be considered applicable, it must involve the following:
 - a. Internal application of CFRP on pipelines greater than 36-inch diameter, where the same CFRP system proposed for use on this project has been used as a stand-alone upgrade of the pipeline without reliance on the host pipe for structural integrity.
 - The minimum project length shall be 16 lineal feet of repair.
 - c. Project must have taken place in the United States or Canada.
 - Provide a list of project references meeting above requirements with CITY's contact information for each project.
- 4. CONTRACTOR shall provide certifications that the foreman and key supervisory staff available to perform the work have a minimum of five (5) years of experience in large diameter internal pipe repair projects using CFRP, with a minimum of five (5) internal pipe repair projects using CFRP per worker. A list of names, titles, and projects shall be provided.
- CONTRACTOR is to provide documentation confirming that they will provide ancillary
 equipment for the PROJECT, including surface preparation equipment, ventilation,
 environmental controls units and generators. Include information on the equipment
 models for each typically utilized.
- 6. CONTRACTOR shall provide a list of any projects where the installed CFRP system failed, did not perform as intended (leak, rupture, CFRP disbonded/had to be removed during or after installation, etc.), or where work was halted or abandoned prior to completion of the originally contracted scope of work. Provide CITY contact information for any of the above referenced projects. If no projects occurred which meet these criteria, a letter stating such shall be provided. Failure to disclose or misrepresentation of this information shall be grounds for disqualification.

C. Manufacturer's qualifications:

- The CFRP system provided by the Manufacturer must meet the minimum design strength specified as well as all material testing and qualifications outlined in of this section.
- 2. Manufacturer shall have in place a minimum of five (5) CFRP systems used for internal pipeline rehabilitation including CFRP layers and epoxy within the past five (5) years. In addition, the MANUFACTURER shall have in place a minimum of five (5) CFRP systems used for internal rehabilitation of wastewater pipelines including CFRP layers and epoxy within the past five (5) years. For a project to be considered applicable, it must involve the following:
 - a. Internal application of CFRP on pipelines greater than 36-inch diameter, where the same CFRP system proposed for use on this project has been used as a stand-alone upgrade of the pipeline without reliance on the host pipe for structural integrity.
 - b. The minimum project length shall be 16 lineal feet of repair.
 - c. Project must have taken place in the United States or Canada.
 - d. Written documentation that the CFRP design engineer is a licensed and registered Professional Engineer in the State of California and has designed a minimum of five (5) pipe rehabilitation projects using CFRP within the past five (5) years in similar applications.

1.06 NOTIFICATIONS

- A. Notify the CITY and ENGINEER:
 - 1. Immediately, when a collapsed pipe or other pipe failure is identified.
 - 2. Immediately, when a sanitary sewer overflow or backup into a building/structure.
 - 3. Immediately, if the site conditions for the work described are found to be unsafe or cannot be completed as specified.
 - 4. Immediately upon identification of any defects posing imminent danger to the public (missing manhole/access lids, broken manhole/access covers, sink holes, etc.) and any observed pipe blockages, surcharging, or potential overflow conditions.

1.07 RESPONSIBILITY FOR OVERFLOWS AND SPILLS

- A. It shall be the responsibility of the CONTRACTOR to schedule and perform the Work in a manner that does not cause or contribute to incidence of overflows or spills of sewage from the sewer system.
- B. In the event that the CONTRACTOR's work activities contribute to overflows or spills, the CONTRACTOR shall immediately take appropriate action to contain and stop the overflow, cleanup the spillage, disinfect the area affected by the spill, and notify the CITY immediately. The CONTRACTOR shall be fully responsible for any damage or costs incurred due to sewer backups and overflows.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Delivery
 - 1. Deliver material in Manufacturer's original unopened and undamaged packages.

- 6. Log of pulling forces measured during insertion.
- Any other testing results or submittals specified in this section or required by applicable ASTM standards.

1.05 QUALIFICATIONS

A. See section 00 43 25 for bidder's required experience.

B. CONTRACTOR qualifications:

- The CONTRACTOR performing the work shall be fully qualified, experienced and equipped to complete this work expeditiously and in a satisfactory manner and shall be an approved installer of CIPP as certified and licensed by the Manufacturer.
- CONTRACTOR must meet or exceed the criteria contained within this section.
 Documentation, including on-site superintendent resumes, must be submitted with
 the proposal to fully demonstrate the minimum requirements as outlined within this
 section. Failure to provide the required information may result in determining a
 CONTRACTOR to be non-responsive.
- 3. The CONTRACTOR must have completed a minimum of five (5) independent installations of CIPP involving internal pipe rehabilitation projects in the past five (5) years. In addition, the CONTRACTOR shall have in place a minimum of five (5) CIPP systems used for internal rehabilitation of wastewater pipelines within the past five (5) years. For a project to be considered applicable, it must involve the following:
 - Internal application of CIPP on pipelines greater than 36-inch diameter.
 - b. The minimum project length shall be 16 lineal feet of repair.
 - c. Project must have taken place in the United States or Canada.
 - d. Provide a list of project references meeting above requirements with CITY's contact information for each project.
- 4. CONTRACTOR shall provide certifications that the foreman and key supervisory staff available to perform the work have a minimum of five (5) years of experience in large diameter internal pipe repair projects using CIPP, with a minimum of five (5) internal pipe repair projects using CIPP per worker. A list of names, titles, and projects shall be provided.
- CONTRACTOR is to provide documentation confirming that they will provide ancillary
 equipment for the PROJECT, including surface preparation equipment, lay-out, and
 curing equipment. Include information on the equipment models for each typically
 utilized.
- 6. CONTRACTOR shall provide a list of any projects where the installed CIPP system failed, did not perform as intended (leak, rupture, had to be removed during or after installation, etc.), or where work was halted or abandoned prior to completion of the originally contracted scope of work. Provide CITY contact information for any of the above referenced projects. If no projects occurred which meet these criteria, a letter stating such shall be provided. Failure to disclose or misrepresentation of this information shall be grounds for disqualification.

C. Manufacturer's qualifications:

 The CIPP system provided by the Manufacturer must meet the minimum design strength specified as well as all material testing and qualifications outlined in of this section.

- 2. Manufacturer shall have in place a minimum of five (5) CIPP systems used for internal pipeline rehabilitation within the past five (5) years. In addition, the Manufacturer shall have in place a minimum of five (5) CIPP systems used for internal rehabilitation of wastewater pipelines within the past five (5) years. For a project to be considered applicable, it must involve the following:
 - a. Internal application of CIPP on pipelines greater than 36-inch diameter.
 - b. The minimum project length shall be 16 lineal feet of repair.
 - c. Project must have taken place in the United States or Canada.
- D. Written documentation that the CIPP design engineer is a licensed and registered Professional Engineer in the State of California.

1.06 NOTIFICATIONS

- A. Notify the CITY and ENGINEER:
 - Immediately, when a collapsed pipe or other pipe failure is identified.
 - 2. Immediately, when a sanitary sewer overflow or backup into a building/structure.
 - 3. Immediately, if the site conditions for the work described are found to be unsafe or cannot be completed as specified.
 - 4. Immediately upon identification of any defects posing imminent danger to the public (missing manhole/access lids, broken manhole/access covers, sink holes, etc.) and any observed pipe blockages, surcharging, or potential overflow conditions.

1.07 RESPONSIBILITY FOR OVERFLOWS AND SPILLS

- A. It shall be the responsibility of the CONTRACTOR to schedule and perform the Work in a manner that does not cause or contribute to incidence of overflows or spills of sewage from the sewer system.
- B. In the event that the CONTRACTOR's work activities contribute to overflows or spills, the CONTRACTOR shall immediately take appropriate action to contain and stop the overflow, cleanup the spillage, disinfect the area affected by the spill, and notify the CITY immediately. The CONTRACTOR shall be fully responsible for any damage or costs incurred due to sewer backups and overflows.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Delivery

- Deliver material in Manufacturer 's original unopened and undamaged packages.
- 2. Clearly identify Manufacturer, brand name, product identification, batch number, storage conditions, mixing ratios, and shelf-life.
- Packages showing indications of damage that may affect condition of contents are not acceptable.

B. Storage

- 1. Storage of all materials and equipment on site shall be in areas using designated access locations, under protective cover and protected from damage.
- 2. Store materials in areas where temperatures conform to Manufacturer 's written recommendations and instructions.

E. Work Plan

- CONTRACTOR shall submit a Work Plan describing the geopolymer mortar installation. The submittal shall include at least the following:
 - a. Access location.
 - b. Site plan sketch showing dimensions of access within work limits and utilities.
 - c. Approximate installation rate (feet/day).
 - d. Preparation steps required for pre-installation.
 - e. Bypass system establishment.
 - f. Site health and safety plan.
 - g. Traffic control plan which provides for the passage of pedestrians and vehicles.
 - h. Pipe crown restoration procedures.
 - i. Geopolymer mortar installation procedures.
 - Equipment setup, curing, sampling, testing, startup and acceptance.
 - k. Clean up and restoration.
 - Appropriate excavation/backfill/resurfacing procedures.
- 2. CONTRACTOR shall prepare and submit a detailed schedule describing the work to be accomplished prior to the start of the shutdown and work to be accomplished during each shift during the shutdown. Detail daily activities and manpower used at each site. If CITY or ENGINEER deems any schedule to be inadequate to secure the completion of work, CONTRACTOR shall correct and re-submit schedules to change the order of prosecution of work to ensure proper and timely execution.

F. Quality Control

 Pre-installation and post-installation videos as required herein, and in Section 33 01 30.16- Television Inspection of Pipelines and Section 33 01 30.41- Gravity Pipeline Cleaning, for review prior to the installation process and all post installation videos, submitted electronically for review and acceptance prior to final payment.

1.05 QUALIFICATIONS

- A. The CONTRACTOR performing the work shall be fully qualified, experienced and equipped to complete this work expeditiously and in a satisfactory manner and shall be an approved installer of geopolymer mortar as certified and licensed by the Manufacturer.
- B. CONTRACTOR must meet or exceed the criteria contained within this section. Documentation, including on-site superintendent resumes, must be submitted with the proposal to fully demonstrate the minimum requirements as outlined within this section. Failure to provide the required information may result in determining a CONTRACTOR to be non-responsive.
- C. CONTRACTOR shall have a minimum of five (5) years' experience in the application of geopolymer mortar for sanitary sewer systems.
- D. The Manufacturer shall submit documentation and verifiable references for installing the proposed geopolymer mortar in a minimum of 250,000 square feet for structure qualifications.

- E. The Manufacturer shall submit documentation and verifiable references for installing the proposed geopolymer mortar in a minimum of 500,000 linear feet of large diameter (>36 inch) horizontal pipe for pipeline qualifications.
- F. The CONTRACTOR shall submit a certified statement from the Manufacturer that he/she is a certified and/or licensed installer of the approved product.
- G. The CONTRACTOR shall be capable of providing crews and equipment as needed to complete this work without undue delay and as required by this section. CONTRACTOR assigned staff shall have a minimum of two (2) years of experience with geopolymer mortar applications.
- H. The CONTRACTOR must submit a work plan showing how the work shall be scheduled and coordinated.
- I. The on-site project superintendent shall have experience that includes at least three (3) years of experience in geopolymer mortar applications and have worked for the CONTRACTOR for the last six (6) months. The on-site superintendent shall be available for the entire duration of the Project. Any substitution of the superintendent individual submitted with the CONTRACTOR's proposal shall be approved by the CITY in writing.
- J. The CITY reserves the right to approve or disapprove the CONTRACTOR, based on the submitted qualifications.

1.06 NOTIFICATIONS

- A. Notify the CITY and ENGINEER:
 - Immediately, when a collapsed pipe or other pipe failure is identified.
 - 2. Immediately, when a sanitary sewer overflow or backup into a building/structure.
 - 3. Immediately, if the site conditions for the work described are found to be unsafe or cannot be completed as specified.
 - 4. Immediately upon identification of any defects posing imminent danger to the public (missing manhole/access lids, broken manhole/access covers, sink holes, etc.) and any observed pipe blockages, surcharging, or potential overflow conditions.

1.07 RESPONSIBILITY FOR OVERFLOWS AND SPILLS

- A. It shall be the responsibility of the CONTRACTOR to schedule and perform the Work in a manner that does not cause or contribute to incidence of overflows or spills of sewage from the sewer system.
- B. In the event that the CONTRACTOR's work activities contribute to overflows or spills, the CONTRACTOR shall immediately take appropriate action to contain and stop the overflow, cleanup the spillage, disinfect the area affected by the spill, and notify the CITY immediately. The CONTRACTOR shall be fully responsible for any damage or costs incurred due to flow backups and overflows.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Delivery
 - Deliver material in Manufacturer's original unopened and undamaged packages.



555 Exchange Court, Livermore, CA 94550 Phone: (925) 373-8370 Fax: (925) 373-8379 SCL No. 422496 "A", DIR No. 1000005190

MCI Bid 2023007

January 27, 2023

Via Overnight Delivery and E-mail: Lauren.Profeit@sanjoseca.gov

Lauren Profeit CIP Procurement Department of Public Works 200 E. Santa Clara St. San Jose, CA 95113

Subject:

City of San Jose

9850 - Yard Piping Improvements Phase 2

Response to Bid Protest of Michels

Dear Ms. Profeit:

Upon considering the bid protest by Michels, Mountain Cascade, Inc. ("MCI") thought it important to furnish the following material facts for consideration by the City of San Jose (the "City"). The two claims offered by Michels for disqualifying MCI's proposal are: (1) an unsupported claim that projects listed by MCI (ref: Section 00 432 25 Statement of Bidder's Experience form) do not satisfy the five experience criteria; and (2) the onsite superintendent resume with specific Carbon Fiber Reinforced Polymer (CFRP) lining experience is not a part of MCI's Bid Proposal. Notably, Michels produces none of the legal authority or factual basis as promised supporting its protest claims.

First, the projects listed on MCI's Statement of Bidder's Experience form meet the requisite goals listed therein, the facts of which the City confirmed. Notwithstanding MCI's compliance, Michels' claim, proffered upon unsupported interpolation and speculation, offers no facts or legal authority discrediting the City's review and acceptance of MCI's vast experience and qualifications provided.

Second, the claim that under the Technical Specifications (Division 33 Utilities, 01 30.73., Part 1.005.B.2) a bidder's proposal is nonresponsive when submitted without the Contractor's CFRP superintendent resumes is inconsistent with instructions and guidance provided by the Submittal Checklist for Bidders form, Notice to Contractors, and Proposal to City of San Jose package. Each of those Sections specifically define precisely the requirements to qualify as a responsible and responsive bidder/bid proposal, none of which include CFRP resumes or CFRP project declarations. Moreover, both MCI and Michels listed the same specialty subcontractor for installing CFRP -the attached, specialty subcontractor Structural Technologies field resumes, provided to both MCI and Michels are identical to that submitted by Michels-, which reinforces the fact that MCI's proposal is no less responsive than Michels. Michels offers no legal authority or factual basis reconciling the ambiguity its interpretation creates between the Technical Specification for construction and bid proposal documents.

For the reasons set forth above, the City must reject Michels claim and move forward with awarding the contract to MCI as the lowest responsible and responsive bidder.

Very truly yours,

David Hicks Corp. Secretary, Vice President – Estimating

Mountain Cascade, Inc



REVISED NOTICE OF INTENT TO AWARD CONTRACT

9850 - Yard Piping Improvements Phase 2 February 07, 2023

Dear Bidders,

On January 12, 2023, the City of San José opened bids for the above referenced project. Bid results for this project are available on Biddingo at www.Biddingo.com/sanjose.

This letter serves as notification that the City has reviewed the timely written protest filed by Michels Trenchless, Inc. on January 27, 2023, as well as the response submitted by Mountain Cascade, Inc. on January 30, 2023, and has determined that the protest should be sustained. As such, the Director of Environmental Services intends to recommend that the City Council award the contract to the lowest responsive, responsible bidder, Michels Trenchless, Inc. on or about April 11, 2023.

Pursuant to Section 27.10.270B of the San Jose Municipal Code, there will be no additional protest period for this procurement.

The City of San José appreciates your interest and effort in preparing and submitting a bid for this project. If you have any questions about the procurement process, please contact the procurement contact listed below.

Lauren Profeit
CIP Procurement Manager
Department of Public Works
200 E. Santa Clara St.
San Jose, CA 95113
lauren.profeit@sanjoseca.gov



Prj ID: 9850

Project Name: Yard Piping Improvements Phase 2

Project Manager: Feng, Tie

Bid Opening Date: January 12, 2023

Today's Date: February 07, 2023

REVISED BID RESULTS SUMMARY

Engineer's Estimate	\$12,200,000.00	
Bidder's Name	Base Bid	%Variance
Michels Trenchless, Inc., Brownsville, WI Apparent Low Bidder	\$16,855,430.00 38.16%	38,16%
Mountain Cascade, Inc., Livermore, CA Irregularities: Non-Responsive; failed to submit experience documentation required by the City	\$15,701,000.00 28.70%	28.70%



February 7, 2023

Lee A. Zubrod Michels Trenchless, Inc. 817 Main Street, PO Box 128 Brownsville, WI 53006 lzubrod@michels.us

SUBJECT: PROTEST OF INTENT TO AWARD CONSTRUCTION CONTRACT FOR ESD 9850: YARD PIPING IMPROVEMENTS PHASE 2

Dear Mr. Zubrod,

This letter is to inform you that City staff has evaluated the letters from your legal counsel, dated January 27, 2023, entitled "Bid Protest" and has determined that your protest should be sustained.

RECOMMENDATION:

The Director of Environmental Services intends to recommend that the City Council award the construction contract to the lowest responsive, responsible bidder, Michels Trenchless, Inc.

BACKGROUND:

On January 12, 2023, bids were opened for the ESD 9850: Yard Piping Improvements Phase 2 Project. Two bids were received, with Mountain Cascade, Inc. as the apparent low bidder with a bid of \$15,701,000.

PROTEST:

On January 27, 2023, Michels Trenchless, Inc. submitted a protest requesting the City reject Mountain Cascade, Inc.'s bid and award the construction contract to Michels Trenchless, Inc. The protest asserted that Mountain Cascade, Inc.'s bid should be deemed non-responsive by the City for 1) failing to meet the requirements listed on the City's Statement of Bidder's Experience and 2) failing to submit the documentation required in the Technical Specifications.

SUBJECT: PROTEST OF INTENT TO AWARD CONSTRUCTION CONTRACT FOR ESD 9850: YARD PIPING IMPROVEMENTS PHASE 2

Page 2

ANALYSIS:

ITEM 1: MICHELS TRENCHLESS, INC.'S PROTEST IS BASELESS:

The project experience list submitted by Mountain Cascade, Inc. provides projects that meet the experience requirements as laid out in the Statement of Bidders Experience form.

The Statement of Bidder's Experience form required bidders to submit a minimum of three projects that met the following experience requirements:

- 1. The bidder must have been the general contractor on each of the projects.
- 2. The projects must have involved construction substantially similar to the construction for this Project. "Substantially similar" means the following:
 - a. The original contract amount related to repair of existing pipelines was at least \$2.5 million; and
 - b. The projects must have involved repair of existing pipelines with a minimum diameter of 36-inches utilizing any of the following methods: cured-in-place pipe rehabilitation, geopolymer mortar rehabilitation, concrete pipe crown repair, or epoxy coating of inside diameter of pipeline.
- 3. The substantial completion date for each project must have been after January 2010.
- 4. The bidder must have completed construction of at least two (2) of the projects at an operating wastewater treatment facility.

In accordance with Section 2-1.13 of the City's Standard Specifications, the City investigated the experience information provided by Mountain Cascade, Inc. and determined that the following three projects met all of the requirements listed in the Statement of Bidder's Experience, including Requirement No. 4:

- 1. Merced Street Sewer Rehabilitation and Sewer Main Reconstruction
- 2. WPCF Primary Clarifier Conversion
- 3. Digester Facilities Improvement Project

The remaining two projects did not meet all of the requirements listed in the Statement of Bidder's Experience. The Almaden Valley Inspection & Rehabilitation Project did not meet Requirement No. 3 and the Ashlan Ave. Sewer Replacement & Rehabilitation Project did not meet Requirement 2b. As such, these projects were discounted.

ITEM 2: MICHELS TRENCHLESS, INC.'S PROTEST SHOULD BE SUSTAINED:

The bid package (proposal) submitted by Mountain Cascade, Inc. failed to provide the documentation specified in Sections 33 01 30.73-8, 33 01 30.71-5, and 40 05 37.71-4 of the Technical Specifications.

SUBJECT: PROTEST OF INTENT TO AWARD CONSTRUCTION CONTRACT FOR ESD 9850: YARD PIPING IMPROVEMENTS PHASE 2

Page 3

Technical Specifications Sections 33 01 30.73-8, 33 01 30.71-5, and 40 05 37.71-4 establish experience requirements relating to the following:

- 1. Carbon Fiber-Reinforced Polymer Rehabilitation
- 2. Cured-in-Place Pipe Rehabilitation
- 3. Geopolymer Mortar Rehabilitation

Section 1.05B of each of the abovementioned Technical Specifications specifically states that documentation establishing that the bidder meets or exceeds the experience requirements, including on-site superintendent resumes, *must be submitted with the proposal*. No such documentation was submitted in Mountain Cascade, Inc.'s bid package (proposal) and, as such, it should be deemed non-responsive.

Although Mountain Cascade, Inc. has since provided the City with the required documentation, accepting their late submittal would be inconsistent with the City's practice and contrary to its commitment to ensuring a fair, transparent and competitive procurement process.

To that end, the City plans to issue a Revised NOITA on or around February 10, 2023, stating that the Director of Environmental Services intends to ask the City Council to award the construction contract to the lowest responsive, responsible bidder, Michels Trenchless, Inc.

Thank you,

Lauren Profeit CIP Procurement Manager San José City Hall, 5th Floor 200 E. Santa Clara Street San José, CA 95112 lauren.profeit@sanjoseca.gov From: Profeit, Lauren < lauren.profeit@sanjoseca.gov>

Sent: Wednesday, February 22, 2023 10:57 AM

To: Peter Foote Cc: David Hicks -

: Radomir Antovich

Subject: RE: 9850 Yard Piping Improvements Phase 2

Mr. Foote,

Thank you for your email.

Pursuant to San Jose Municipal Code Section 27.10.410, neither the City Council nor the Director is required to conduct a hearing on a bid protest.

The City Council is scheduled to consider the recommended award of this Project at its regularly scheduled public meeting on April 25, 2023, and you may submit any documents in response to the Director's Recommendation to the City Council prior to or at that meeting. You may also address the Council when it receives public comment during its consideration of the Director's Recommendation at that meeting. If you do intend to submit any documents to the City Council, we request that you submit the documents to the City Council with a copy to me no later than April 21, 2023.

Best,

Lauren Profeit

Lauren Profeit

CIP Procurement

Public Works Department

From: Peter Foote

Sent: Thursday, February 16, 2023 9:14 AM

To: Profeit, Lauren

Cc: David Hicks

Subject: 9850 Yard Piping Improvements Phase 2

[External Email]

Ms. Profeit,

We are in receipt of your letter dated January 7, 2023 and regarding Revised Notice of Intent to Award Contract on the 9850 Yard Piping Improvements Phase 2.

We request a Formal Hearing to review this decision.

This is not a "protest" request. It is the opportunity for our council to present fervent evidence that the specifications and bidders instructions do not substantiate the findings in the Cities letter of February 7, 2023.

Regards,



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