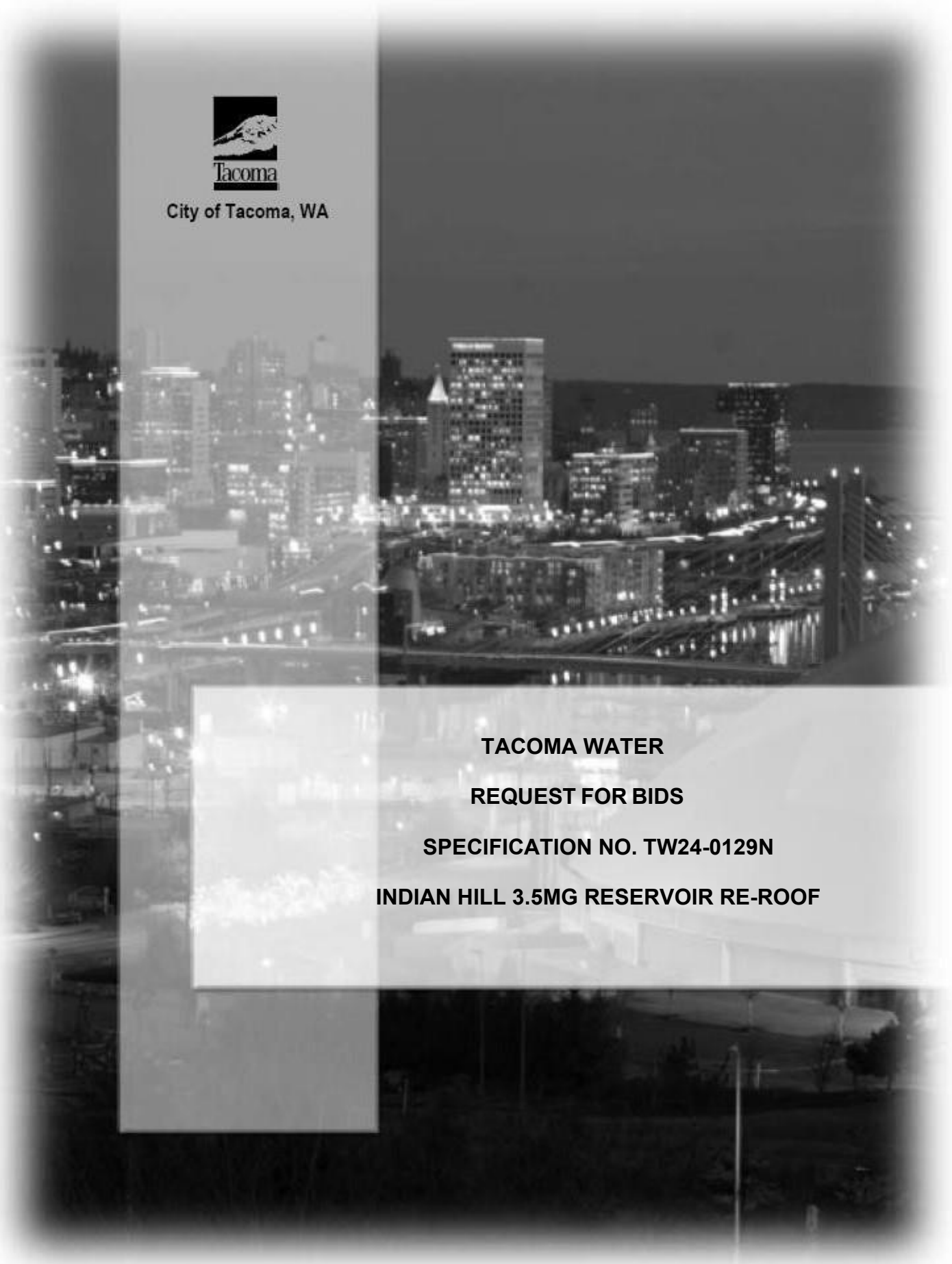

City of Tacoma, WA

TACOMA WATER

REQUEST FOR BIDS

SPECIFICATION NO. TW24-0129N

INDIAN HILL 3.5MG RESERVOIR RE-ROOF

CITY OF TACOMA,

DEPARTMENT OF PUBLIC UTILITIES

WATER DIVISION

SPECIFICATION NO. TW24-0129N

Indian Hill 3.5MG Reservoir Re-Roof

JUNE 2024

JACKIE FLOWERS
DIRECTOR OF UTILITIES

HEATHER PENNINGTON
TACOMA WATER SUPERINTENDENT

PREPARED BY
MICHEL V PELOQUIN,
P.E.

UTILITIES ADMINISTRATION BUILDING
TACOMA, WASHINGTON 98409

City of Tacoma
Tacoma Water

REQUEST FOR BIDS TW24-0129N
Indian Hill 3.5MG Reservoir Re-Roof

Submittal Deadline: 11:00 a.m., Pacific Time, Monday, July 8, 2024

Submittals must be received by the City's Procurement and Payables Division prior to 11:00 a.m. Pacific Time.

For electronic submittals, the City of Tacoma will designate the time of receipt recorded by our email, sendbid@cityoftacoma.org, as the official time of receipt. This clock will be used as the official time of receipt of all parts of electronic bid submittals. For in person submittals, the City of Tacoma will designate the time of receipt recorded by the timestamp located at the lobby security desk, as the official time of receipt. Late submittals will be returned unopened and rejected as non-responsive.

Submittal Delivery: Sealed submittals will be received as follows:

By Email:	**In Person:**
sendbid@cityoftacoma.org Maximum file size: 35 MB. Multiple emails may be sent for each submittal	Tacoma Public Utilities Administration Building North, Main Floor, Lobby Security Desk 3628 South 35th Street Tacoma, WA 98409 Monday – Friday 8:00 am to 4:30 pm

Bid Opening: Submittals must be received by the City's Procurement and Payables Division prior to 11:00 a.m. Pacific Time. Sealed submittals in response to a RFB will be opened at 11:15 a.m. by a purchasing representative and read aloud during a public bid opening held at the Tacoma Public Utilities Administrative Building North, 3628 S. 35th Street, Tacoma, WA 98409, conference room M-1, located on the main floor. They will also be held virtually at 11:15 a.m. Attend via this link or call 1 (253) 215 8782.
Submittals in response to an RFP, RFQ or RFI will be recorded as received. As soon as possible, after 1:00 PM, on the day of submittal deadline, preliminary results will be posted to www.TacomaPurchasing.org.

Solicitation Documents: An electronic copy of the complete solicitation documents may be viewed and obtained by accessing the City of Tacoma Purchasing website at www.TacomaPurchasing.org.

- Register for the Bid Holders List to receive notices of addenda, questions and answers and related updates.
- Click here to see a list of vendors registered for this solicitation.

Pre-Proposal Meeting: A pre-proposal meeting will be held at 10:00 a.m., PST, Tuesday, June 25, 2024 at the Indian Hill Reservoir located off Orcas Drive NE in Federal Way, Washington.

Project Scope: The City of Tacoma (City) / Department of Public Utilities (TPU) / Water Division (Tacoma Water) is soliciting bids to establish a contract for the re-roof of a 3.5 million gallon concrete reservoir. The Indian Hill Reservoir is located off Orcas Drive NE in Federal Way, Washington. The concrete roof of the reservoir's 3.5 million gallon belowground concrete tank is covered by a hot mop pea gravel coating installed in 1981. The hot mop pea gravel coating has exceeded its expected useful lifespan of 20 years and has deteriorated with multiple areas of no roof covering. Additionally, there are concerns that the hot mop pea gravel may leach metals or other compounds which could enter the tank via rainwater through cracks in the roof. The objective of this project is to analyze the existing hot mop pea gravel material and prepare a disposal plan for the material once removed; remove the existing roof coating in its entirety, repair any cracks or flaws identified in the reservoir roof once the coating has been removed; evaluate the existing reservoir vents based on reservoir flowrates and upgrade the vents, to meet AWWA standards; and to install a new high performance coating system on the roof. A Tamoseal/Tammscoat Base Coat/Finish Coat by Euclid Chemical Company coating system will be installed on the tank roof. This coating system was recently used by Tacoma Water as part of the successful Hood Street Reservoir Seismic Upgrades project. Also, initial evaluation of the tank indicates that current stormwater drainage patterns (i.e., sheet flow off the roof onto

the surrounding ground) are adequate and drainage crickets are not necessary. Replacing the existing coating with a new high performance coating system will make these flow patterns more efficient and will decrease the potential for stormwater to pond on the reservoir roof. Overall, this project will repair any cracks in the reservoir roof, ensure the reservoir tank is sealed against and protected from rainwater intrusion, and bring the tank venting up to current standards.

Estimate: $370,000.00 plus tax

Paid Sick Leave: The City of Tacoma requires all employers to provide paid sick leave in accordance with State of Washington law.

Americans with Disabilities Act (ADA Information: The City of Tacoma, in accordance with Section 504 of the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA), commits to nondiscrimination on the basis of disability, in all of its programs and activities. Specification materials can be made available in an alternate format by emailing the contact listed below in the *Additional Information* section.

Title VI Information:
"The City of Tacoma" in accordance with provisions of Title VI of the Civil Rights Act of 1964, (78 Stat. 252, 42 U.S.C. sections 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin in consideration of award.

Additional Information: Requests for information regarding the specifications may be obtained by contacting Brandon Snow by email to bsnow@cityoftacoma.org.

Protest Policy: City of Tacoma protest policy, located at www.tacomapurchasing.org, specifies procedures for protests submitted prior to and after submittal deadline.

Meeting sites are accessible to persons with disabilities. Reasonable accommodations for persons with disabilities can be arranged with 48 hours advance notice by calling 253-502-8468.

SPECIFICATION CONTENTS

This Specification contains the following:

1. Request for Bids
2. Specifications Contents
3. Bidders Submittal Package Checklist
4. Special Notice to Bidders
5. General Provisions
6. Special Provisions
7. Technical Provisions
8. Appendix A, B & C

APPENDIX A

DRAWINGS

G-01 Indian Hill Reservoir ReRoof Title Page
G-02 Indian Hill Reservoir ReRoof Site Plan and Project Notes
A-01 Indian Hill Reservoir ReRoof Demolition Roof Plan with Details
A-02 Indian Hill Reservoir ReRoof New Roof Recoating Plan
A-03 Indian Hill Reservoir ReRoof Roof Recoating Details – I
S-01 Indian Hill Reservoir ReRoof General Structural Notes

APPENDIX B

Signature Page
Bid Proposal Sheet
Certification of Compliance with Wage Payment Statutes
State Responsibility & Reciprocal Bid Preference Information
City of Tacoma Equity in Contracting (EIC) and LEAP Programs – Bidders Special Instructions
Equity in Contracting (EIC) Utilization Form
Record of Prior Contracts

APPENDIX C

City of Tacoma Insurance Requirements for Contracts
Contract – Sample Document
Performance Bond
Payment Bond
General Release Form

Bidders Submittal
Package Checklist

BIDDERS SUBMITTAL PACKAGE CHECK LIST

This checklist identifies items to be included with your submittal. Any submittal received without these required items may be deemed non-responsive and not be considered for award. Submittals must be received by the City of Tacoma Purchasing Division by the date and time specified in the Request for Bids page.

The following items make up your submittal package:	
Signature Page (Appendix B)	
Bid Proposal Sheet (Appendix B)	
Certification of Compliance with Wage Payment Statutes (Appendix B)	
State Responsibility and Reciprocal Bid Preference Information (Appendix B)	
EIC Utilization Form (Appendix B)	
Record of Prior Contracts (Appendix B)	
After award, the following documents will be executed:	
Contract	
Certificate of Insurance and related endorsements	
Performance and Payment Bond	

Special Notice
to Bidders

CITY OF TACOMA
FINANCE/PURCHASING DIVISION

SPECIAL NOTICE TO BIDDERS

Public works and improvement projects for the City of Tacoma are subject to Washington state law and Tacoma Municipal Code, including, but not limited to the following:

I. STATE OF WASHINGTON

A. RESPONSIBILITY CRITERIA – STATE OF WASHINGTON

In order to be considered a responsible bidder the bidder must meet the following mandatory state responsibility criteria contained in RCW 39.04.350:

1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect **at the time of bid submittal**.
2. Have a current Washington Unified Business Identifier (UBI) number.
3. If applicable:
   a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
   b. Have a Washington Employment Security Department number, as required in Title 50 RCW;
   c. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW and;
4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).
5. Have received training on the requirements related to public works and prevailing wage under this chapter and chapter 39.12 RCW and must designate a person or persons to be trained on these requirements. The training must be provided by the department of labor and industries or by a training provider whose curriculum is approved by the department. Bidders that have completed three or more public works projects and have had a valid business license in Washington for three or more years are exempt from this subsection.

B. RECIPROCAL PREFERENCE FOR RESIDENT CONTRACTORS:

Effective March 30, 2012, RCW 39.04.380 imposes a reciprocal preference for resident contractors. Any bid received from a non-resident contractor from a state that provides an in-state percentage bidding preference is subject application of a comparable percentage disadvantage.

A non-resident contractor from a state that provides an in-state percentage bidding preference means a contractor that:

1. Is from a state that provides a percentage bid preference to its resident contractors bidding on public works projects, and
2. Does not have a physical office located in Washington at the time of bidding on the City of Tacoma public works project.

The state of residence for a non-resident contractor is the state in which the contractor was incorporated, or if not a corporation, the state in which the contractor's business entity was formed.

The City of Tacoma will evaluate all non-resident contractors for an out of state bidder preference. If the state of the non-resident contractor provides an in-state contractor preference, a comparable percentage disadvantage will be applied to the non-resident contractor's bid prior to contract award. The responsive and lowest and best responsible bidder after application of any non-resident disadvantage will be awarded the contract.

The reciprocal preference evaluation does not apply to public works procured pursuant to RCW 39.04.155, RCW 39.04.280, federally funded competitive solicitations where such agencies prohibit the application of bid preferences, or any other procurement exempt from competitive bidding.

Bidders must provide the City of Tacoma with their state of incorporation or the state in which the business entity was formed and include whether the bidder has a physical office located in Washington.

The bidder shall submit documentation demonstrating compliance with above criteria on the enclosed State Responsibility and Reciprocal Bidder Information form.

C. SUBCONTRACTOR RESPONSIBILITY

1. The Contractor shall include the language of this subcontractor responsibility section in each of its first-tier subcontracts and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. The requirements of this section apply to all subcontractors regardless of tier.

2. At the time of subcontract execution, the Contractor shall verify that each of its first-tier subcontractors meets the following bidder responsibility criteria:

    a. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal.

    b. Have a current Washington Unified Business Identifier (UBI) number.

    c. If applicable, have:

    a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW.
    b. A Washington Employment Security Department number, as required in Title 50 RCW.
    c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW.
    d. An electrical contractor license, if required by Chapter 19.28 RCW.
    e. An elevator contractor license, if required by Chapter 70.87 RCW and;

3. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).

II. CITY OF TACOMA

A. SUPPLEMENTAL RESPONSIBILITY CRITERIA – CITY OF TACOMA:

In order to be considered a responsible bidder, the prospective bidder shall have all of the following qualifications set forth in Tacoma Municipal Code 1.06.262:

1. Adequate financial resources or the ability to secure such resources;
2. The necessary experience, stability, organization and technical qualifications to perform the proposed contract;
3. The ability to comply with the required performance schedule, taking into consideration all existing business commitments;
4. A satisfactory record of performance, integrity, judgment, and skills; and
5. Be otherwise qualified and eligible to receive an award under applicable laws and regulations.
    a. Bidder Responsibility. Bidders shall not be in violation of 39.04.350 RCW Bidder Responsibility Criteria - Supplemental Criteria.

In addition to the mandatory bidder responsibility criteria listed immediately above, the city may, in addition to price, consider any or all of the following criteria contained in Tacoma Municipal Code Chapter 1.06.262 in determining bidder responsibility:

1. The ability, capacity, experience, stability, technical qualifications, and skill of the respondent to perform the contract;
2. Whether the respondent can perform the contract within the time specified, without delay or interference;
3. Integrity, reputation, character, judgment, experience, and efficiency of the respondents, including past compliance with the City's Ethics Code;
4. Quality of performance of previous contracts;
5. Previous and existing compliance with laws and ordinances relating to contracts or services;
6. Sufficiency of the respondent's financial resources;
7. Quality, availability, and adaptability of the supplies, purchased services or public works to the particular use required;
8. Ability of the respondent to provide future maintenance and service on a timely basis;
9. Payment terms and prompt pay discounts;
10. The number and scope of conditions attached to the submittal;
11. Compliance with all applicable City requirements, including but not limited to the City's Ethics Code and its Equity in Contracting and Local Employment and Apprenticeship Training programs;
12. Other qualification criteria set forth in the specification or advertisement that the appropriate department or division head determines to be in the best interests of the city.

The city may require bidders to furnish information, sworn or certified to be true, to demonstrate compliance with the city responsibility criteria set forth above. If the city manager or director of utilities is not satisfied with the sufficiency of the information provided, or if the prospective respondent does not substantially meet all responsibility requirements, any submittal from such respondent must be disregarded.

B. ADDITIONAL SUPPLEMENTAL CRITERIA – NOT APPLICABLE

C. MODIFICATIONS TO SUPPLEMENTAL CRITERIA

Potential bidders may request modifications to the City's **supplemental criteria** by submitting a written request to the Purchasing Division via email to bids@cityoftacoma.org no later than 5:00 p.m. Pacific Time, three days prior to the submittal deadline. Please include the Specification No. and Title when submitting such requests. Requests must include justification for why certain criteria should be modified. Requests received after this date and time will not be considered.

The city will respond to a timely submitted request prior to the bid opening date. Changes to the supplemental criteria, if warranted, will be issued by addendum to the solicitation documents and posted to the City's website for the attention of all prospective bidders.

D. DETERMINATION OF BIDDER RESPONSIBILITY

If the City determines the bidder does not meet the criteria above and is therefore not a responsible bidder, the City shall notify the bidder in writing with the reasons for its determination. If the bidder disagrees, the bidder may appeal the determination in a manner consistent with the City's Protest Policy. Appeals are coordinated by the Purchasing Division heard by the Procurement and Payables Division manager for contracts less than or equal to $500,000 and by Contracts and Awards Board for contracts greater than $500,000.

GENERAL PROVISIONS

GENERAL PROVISIONS

(Revised December 15, 2020)

SECTION I - BIDDING REQUIREMENTS

SECTION I REQUIREMENTS ARE BINDING ON ALL RESPONDENTS.

1.01 USE AND COMPLETION OF CITY PROPOSAL SHEETS

A. Respondent's Proposal

Each Respondent must bid exactly as specified on the Proposal sheets. All proposals must remain open for acceptance by the city for a period of at least 60 calendar days from the date of opening of the bids.

B. Alterations of Proposals Not Allowed

Proposals that are incomplete or conditioned in any way contain alternatives or items not called for in the General Provisions and Specifications, or not in conformity with law may be rejected as being nonresponsive. The city cannot legally accept any proposal containing a substantial deviation from these Specifications.

C. Filling Out City Proposal Sheets

All proposals must be completed using the proposal sheets and forms included with this specification, and the prices must be stated in figures either written in ink or typewritten. No proposal having erasures or interlineations will be accepted unless initialed by the Respondent in ink.

1.02 CLARIFICATION OF PROPOSAL FOR RESPONDENT

If a prospective Respondent has any questions concerning any part of the Proposal, he/she may submit a written request for answer of his/her questions. Any interpretation of the Proposal will be made by an Addendum duly issued and mailed or delivered to each prospective Respondent. Such addendum must be acknowledged in the proposal. The City of Tacoma will not be responsible for any other explanation or interpretation of the bid documents.

1.03 RESPONDENT'S BOND OR CERTIFIED CHECK

Each bid for construction must be accompanied either by a certified or cashier’s check for 5 percent of the total amount bid, including tax, payable to the City Treasurer, or an approved bid bond, by a surety company authorized to do business in the State of Washington, for 5 percent of the total amount bid. The person legally authorized to sign the bid must sign all bid bonds. The approved bid bond form attached to these Specifications should be used: no substantial variations from the language thereof will be accepted.

If a bid bond is used, the 5 percent may be shown either in dollars and cents, or the bid bond may be filled in as follows, "5 percent of the total amount of the accompanying proposal."

The check of the successful Respondent will be returned after award of the Contract, acceptance of the Payment and Performance Bond and City's receipt of the signed Contract. The checks of all other Respondents will be returned immediately upon the award of the Contract. Bid bonds will not be returned.

1.04 DELIVERY OF PROPOSALS TO THE CITY’S PURCHASING OFFICE

A. Proposal packages must be received by the City’s Procurement and Payables Division in SAP Ariba (unless another form of delivery is stated), prior to the scheduled time and date stated in the Solicitation.

B. Supplier is solely responsible for timely delivery of its Submittal.

C. Submittals received after the time stated in the solicitation will not be accepted.

D. For purposes of determining whether a Submittal has been timely received in SAP Ariba, the City's Procurement and Payables Division will rely on the submittal clock in SAP Ariba.

1.05 LICENSES/PERMITS

A. Suppliers, if applicable, must have a Washington state business license at the time of Submittal and throughout the term of the Contract. Failure to include a Washington state business license may be grounds for rejection of the Submittal or cancellation of contract award. Information regarding Washington state business licenses may be obtained at http://bls.dor.wa.gov.

B. Upon award, it is the responsibility of the Supplier to register with the City of Tacoma's Tax and License Division, 733 South Market Street, Room 21, Tacoma, WA 98402-3768, 253-591-5252, https://www.cityoftacoma.org/government/city_departments/finance/tax_and_license/. Supplier shall obtain a business license as is required by Tacoma Municipal Code Subtitle 6C.20.

C. During the term of the Contract, Supplier, at its expense, shall obtain and keep in force any and all necessary licenses and permits.

1.06 CONTRACTOR'S STATE REGISTRATION NUMBER

Contractors for construction or public works construction are required to be licensed by the state. If the provisions of Chapter 18.27 of the Revised Code of Washington apply to the Respondent, then the Respondent's Washington State Contractor's Registration No. must accompany the bid.

1.07 BID IS NONCOLLUSIVE

The Respondent represents by the submission of the Proposal that the prices in this Bid are neither directly nor indirectly the result of any formal or informal agreement with another Respondent.

1.08 EVALUATION OF BID

A. Price, Experience, Delivery Time, and Responsibility

In the evaluation of bids, the Respondent's experience, delivery time, quality of performance or product, conformance to the specifications and responsibility in performing other contracts (including satisfying all safety requirements) may be considered in addition to price. In addition, the bid evaluation factors set forth in City Code Section 1.06.262 may be considered by the city. Respondents who are inexperienced or who fail to properly perform other contracts may have their bids rejected for such cause.

B. Prequalified Electrical Contractor

Certain types of electrical construction require special expertise, experience, and prequalification of the Contractor (or subcontractor) by the city. In such cases, the Respondent must be prequalified, or the Respondent must subcontract with a city prequalified electrical contractor for the specialty work.

C. Insertions of Material Conflicting with Specifications

Only material inserted by the Respondent to meet requirements of the Specifications will be considered. Any other material inserted by the Respondent will be disregarded as being nonresponsive and may be grounds for rejection of the Respondent's Proposal.

D. Correction of Ambiguities and Obvious Errors

The City reserves the right to correct obvious errors in the Respondent's proposal. In this regard, if the unit price does not compute to the extended total price, the unit price shall govern.

1.09 WITHDRAWAL OF BID

A. Prior to Bid Opening

Any Respondent may withdraw his/her Proposal prior to the scheduled bid opening time by delivering a written notice to the City’s Procurement and Payables Office. The notice may be submitted in person or by mail; however, it must be received by the City’s Procurement and Payables Office prior to the time of bid opening.

B. After Bid Opening

No Respondent will be permitted to withdraw his/her Proposal after the time of bid opening, as set forth in the Call for Bids, and before the actual award of the Contract, unless the award of Contract is delayed more than sixty (60) calendar days after the date set for bid opening. If a delay of more than 60 calendar days does occur, then the Respondent must submit written notice withdrawing his/her Proposal to the Purchasing Manager.

1.10 OPENING OF BIDS

At the time and place set for the opening of bids, all Proposals, unless previously withdrawn, will be publicly opened and read aloud, irrespective of any irregularities or informalities in such Proposal.

1.11 CITY COUNCIL/PUBLIC UTILITY BOARD FINAL DETERMINATION

The City Council or Public Utility Board of the City of Tacoma shall be the final judge as to which is the lowest and best bid in the interest of the City of Tacoma. The City reserves the right to reject any and all bids, waive minor deviations or informalities, and if necessary, call for new bids.

1.12 RESPONDENT'S REFUSAL TO ENTER INTO CONTRACT

Any Respondent who refuses to enter into a Contract after it has been awarded to the Respondent will be in breach of the agreement to enter the Contract and the Respondent's certified or cashier’s check or bid bond shall be forfeited.

1.13 TAXES

A. Include In Proposal All Taxes

Respondent shall include in his/her Proposal all applicable local, city, state, and federal taxes. It is the Respondent's obligation to state on his/her Proposal sheet the correct percentage and total applicable Washington State and local sales tax. The total cost to the city including all applicable taxes may be the basis for determining the low Respondent.

B. Federal Excise Tax

The City of Tacoma is exempt from federal excise tax. Where applicable, the City shall furnish a Federal Excise Tax Exemption certificate.

C. City of Tacoma Business and Occupation Tax

Sub-Title 6A of the City of Tacoma Municipal Code (TMC) provides that transactions with the City of Tacoma, may be subject to the City of Tacoma's Business and Occupation Tax. It is the responsibility of the Respondent awarded the Contract to register with the City of Tacoma's Department of Tax and License, 733 South Market Street, Room 21, Tacoma, WA 98402-3768, telephone 253-591-5252. The City's Business and Occupation Tax amount shall not be shown separately but shall be included in the unit and/or lump sum prices bid.

1.14 FIRM PRICES/ESCALATION

Except as specifically allowed by the Special Provisions, only firm prices will be accepted.

1.15 AWARD

A. Construction and/or Labor Contracts

Unless specifically noted in the Special Provisions or Proposal sheets, all construction and/or labor contracts will be awarded to only one Respondent.

B. Supply/Equipment Contracts

The City reserves the right to award an equipment or supply contract for any or all items to one or more Respondents as the interests of the City will be best satisfied.

1.16 INCREASE OR DECREASE IN QUANTITIES

The City of Tacoma reserves the right to increase or decrease the quantities of any items under this Contract and pay according to the unit prices quoted in the Proposal (with no adjustments for anticipated profit).

1.17 EXTENSION OF CONTRACT

Contracts resulting from this specification shall be subject to extension by mutual agreement per the same prices, terms, and conditions.

1.18 PAYMENT TERMS

A. Prices will be considered as net 30 calendar days if no cash discount is shown. Payment discount periods of twenty (20) calendar days or more if offered in the submittal, will be considered in determining the apparent lowest responsible submittal. Discounts will be analyzed in context of their overall cumulative effect. Invoices will not be processed for payment, nor will the period of cash discount commence until receipt of a properly completed invoice and until all invoiced items are received and satisfactory performance of the Contractor has been attained. If an adjustment in payment is necessary due to damage or dispute, the cash discount period shall commence on the date final approval for payment is authorized.

B. ePayable/Credit Card Acceptance. Submittals offering ePayable/Credit card acceptance may be compared against submittals offering a prompt payment discount to evaluate the overall cumulative effect of the discount against the advantage to the city of the ePayable/Credit card acceptance and may be considered in determining the apparent lowest responsible submittal.

1.19 PAYMENT METHOD – EPAYABLES – CREDIT CARD ACCEPTANCE – EFT/ACH ACCEPTANCE

A. Payment methods include:

- EPayables (Payment Plus). This is payment made via a virtual, single use VISA card number provided by the City's commercial card provider. Suppliers accepting this option will receive "due immediately" payment terms. Two options for acceptance are available to suppliers. Both are accompanied by an emailed advice containing complete payment details:
    - Straight-through processing (buyer initiated). Immediate, exact payments directly deposited to supplier accounts by the City's provider bank; the supplier does not need to know card account details.
    - Supplier retrieves card account through the secure, on-line portal provided via email notifications sent by the City's commercial card provider.
- Credit card. Tacoma's VISA procurement card program is supported by standard bank credit suppliers and requires that merchants abide by the VISA merchant operating rules. It provides "due immediately" payment terms.
    - Suppliers must be PCI-DSS compliant (secure credit card data management) and federal FACTA (sensitive card data display) compliant.
    - Suppliers must be set up by their card processing equipment provider (merchant acquirer) as a minimum of a Level II merchant with the ability to pass along tax, shipping and merchant references information.
- Electronic Funds Transfer (EFT) by Automated Clearing House (ACH). Standard terms are net 30 for this payment method.
- Check or other cash equivalent. Standard terms are net 30 for this payment method.

B. The City's preferred method of payment is by ePayables (Payment Plus) followed by credit card (aka procurement card). Suppliers may be required to have the capability of accepting the City's ePayables or credit card methods of payment**. The City of Tacoma will not accept price changes or pay additional fees when ePayables (Payment Plus) or credit card is used.**

C. The City, in its sole discretion, will determine the method of payment for goods and/or services as part of the Contract.

1.20 COOPERATIVE PURCHASING

The Washington State Interlocal Cooperative Act RCW 39.34 provides that other governmental agencies may purchase goods and services on this solicitation or contract in accordance with the terms and prices indicated therein if all parties are agreeable.

1.21 PUBLIC DISCLOSURE: PROPRIETARY OR CONFIDENTIAL INFORMATION

A. Respondent's Submittals, all documents and records comprising any Contract awarded to Respondent, and all other documents and records provided to the City by Respondent are deemed public records subject to disclosure under the Washington State Public Records Act, Chapter 42.56 RCW (Public Records Act). Thus, City may be required, upon request, to disclose the Contract and documents or records related to it unless an exemption under the Public Records Act or other laws applies. In the event CITY receives a request for such disclosure, determines in its legal judgment that no applicable exemption to disclosure applies; and Respondent has complied with the requirements to Respondent has complied with the requirements to mark records considered confidential or proprietary

as such requirements are stated below, City agrees to provide Respondent 10 days written notice of impending release. Should legal action thereafter be initiated by Respondent to enjoin or otherwise prevent such release, all expense of any such litigation shall be borne by Respondent, including any damages, attorneys' fees or costs awarded by reason of having opposed disclosure. City shall not be liable for any release where notice was provided, and Respondent took no action to oppose the release of information.

B. If Respondent provides City with records or information that Respondent considers confidential or proprietary, Respondent must mark all applicable pages or sections of said record(s) as "Confidential" or "Proprietary." Further, in the case of records or information submitted in response to a Request for Proposals, an index must be provided indicating the affected pages or sections and locations of all such material identified Confidential or Proprietary. Information not included in the required index will not be reviewed for confidentiality or as proprietary before release. If Supplier fails to so mark or index Submittals and related records, then the City, upon request, may release said record(s) without the need to satisfy the requirements of subsection A above; and Respondent expressly waives its right to allege any kind of civil action or claim against the City pertaining to the release of said record(s). Submission of materials in response to City's Solicitation shall constitute assent by Respondent to the foregoing procedure and Respondent shall have no claim against the City on account of actions taken pursuant to such procedure.

1.22 FEDERAL AID PROJECTS

The City of Tacoma in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, subtitle A, Office of the Secretary, part 21, nondiscrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR, part 26, will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

SECTION II - CONTRACT REQUIREMENTS

2.01 CONTRACTOR'S RESPONSIBILITY

A. Contract Documents

The Respondent to whom the Contract is awarded, hereinafter called the Contractor, shall enter into a Contract with the City of Tacoma, within 10 days after receipt from the City of Tacoma of a properly prepared Contract. In addition, the Contractor will do all things required to promptly perform this Contract pursuant to the terms of this Contract. Certain contracts for supplies, goods or equipment may use the City Purchase Order in place of a formal contract document.

B. Surety Bonds

Except as modified by the Special Provisions, the Respondent to whom the Contract is awarded shall provide a payment and performance bond, including power of attorney, for 100 percent of the amount of his/her bid (including sales taxes), to insure complete performance of the Contract including the guarantee. The bonds must be executed by a surety company licensed to do business in the State of Washington. For a supply-type contract, a cashier's check or cash may be substituted for the bonds; however, this cash or cashier's check must remain with the City through the guarantee period and any interest on said amount shall accrue to the City.

C. Independent Contractor

Contractor is an independent contractor; no personnel furnished by the Contractor shall be deemed under any circumstances to be the agent or servant of the City. Contractor shall be fully responsible for all acts or omissions of Subcontractors and its and their suppliers and of persons employed by them and shall be specifically responsible for sufficient and competent supervision and inspection to assure compliance in every respect with the Contract. There shall be no contractual relationship between any Subcontractors or supplier and the City arising out of or by virtue of this agreement. No provision of the Contract is intended or is to be construed to be for the benefit of any third party.

2.02 CONFLICTS IN SPECIFICATIONS

Anything mentioned in the Specifications and not shown on the Drawings and anything on the Drawings and not mentioned in the Specifications shall be of like effect and shall be understood to be shown and/or mentioned in both. In case of differences between Drawings and Specifications, the Specifications shall govern. In addition, in the event of any conflict between these General Provisions, the Special Provisions, the Technical Provisions and/or the Proposal pages, the following order of precedence shall control:

1. Proposal pages prevail if they conflict with the General, Special or Technical Provisions.
2. Special Provisions prevail if they conflict with the General Provisions and/or Technical Provisions.
3. Technical Provisions prevail if they are in conflict with the General Provisions.

In case of discrepancy of figures between Drawings, Specifications or both, the matter shall immediately be submitted to the Engineer for determination. Failure to submit the discrepancy issue to the Engineer shall result in the Contractor's actions being at his/her own risk and expense. The Engineer shall furnish from time to time such detailed drawings and other information as he/she may consider necessary.

2.03 INSPECTION

A. Of the Work

All materials furnished and work done shall be subject to inspection.

The Inspector administering the Contract shall at all times have access to the work wherever it is in progress or being performed, and the Contractor shall provide proper facilities for such access and inspection. Such inspection shall not relieve the Contractor of the responsibility of performing the work correctly, utilizing the best labor and materials in strict accordance with the Specifications of this Contract. All material or work approved and later found to be defective shall be replaced without cost to the City of Tacoma.

B. Inspector's Authority

The inspector shall have power to reject materials or workmanship which do not fulfill the requirements of these Specifications, but in case of dispute the Contractor may appeal to the Director or Superintendent, whose decision shall be final. The word “Director” means the Director of the City of Tacoma General Government department that is administering the contract. The word "Superintendent" means the Superintendent of the City of Tacoma, Department of Public Utilities Division that is administering the contract.

The Contract shall be carried out under the general control of the representative of the particular City Department or Division administering the Contract, who may exercise such control over the conduct of the work as may be necessary, in his or her opinion, to safeguard the interest of the City of Tacoma. The Contractor shall comply with all orders and instructions given by the representative of the particular Department or Division administering the Contract in accordance with the terms of the Contract.

Provided, that for the purposes of construction contracts, such control shall only apply (a) to the extent necessary to ensure compliance with the provisions of this contract, and (b) to the extent necessary to fulfill any nondelegable duty of the City for the benefit of third parties not engaged in promoting the activity of this contract.

Nothing herein contained, however, shall be taken to relieve the Contractor of his/her obligations or responsibilities under the Contract.

2.04 FEDERAL, STATE AND MUNICIPAL REGULATIONS

All federal, state, municipal and/or local regulations shall be satisfied in the performance of all portions of this Contract. The Contractor shall be solely responsible for all violations of the law from any cause in connection with work performed under this Contract.

2.05 INDEMNIFICATION

A. Indemnification

Contractor acknowledges that pursuant to the terms of this agreement, Contractor is solely and totally responsible for the safety of all persons and property in the performance of this Contract. To the greatest extent allowed by law, Contractor assumes the risk of all damages, loss, cost, penalties and expense and agrees to indemnity, defend and hold harmless the City of Tacoma, from and against any and all liability which may accrue to or be sustained by the City of Tacoma on account of any claim, suit or legal action made or brought against the City of Tacoma for the death of or injury to persons (including Contractor's or subcontractor's employees) or damage to property involving Contractor, or subcontractor(s) and their employees or agents, arising out of and in connection with or incident to the performance of the Contract including if the City is found to have a nondelegable duty to see that work is performed with requisite care, except for injuries or damages caused by the sole negligence of the City. In this regard, Contractor recognizes that Contractor is waiving immunity under industrial Insurance Law, Title 51 RCW. This indemnification extends to the officials, officers and employees of the City and also includes attorney's fees and the cost of establishing the right to indemnification hereunder in favor of the City of Tacoma. In addition, within the context of competitive bidding laws, it is agreed that this indemnification has been mutually negotiated. Provided however, this provision is intended to be applicable to the parties to this agreement and it shall not be interpreted to allow a Contractor's employee to have a claim or cause of action against Contractor.

B. Limitation of Liability for Primarily Supply-Type Contracts

In all contracts where the total cost of the supply of materials and/or equipment constitute at least 70 percent of the total contract price (as determined by the City), the City agrees that it will not hold the contractor, supplier, or manufacturer liable for consequential damages for that part of the contract related to the manufacture and/or design of the equipment, materials or supplies.

2.06 CONTRACTOR'S INSURANCE

A. During the course and performance of a Contract, Contractor will provide proof and maintain the insurance coverage in the amounts and in the manner specified in the City of Tacoma Insurance Requirements as is applicable to the services, products, and deliverables provided under the Contract. The City of Tacoma Insurance Requirements document, if issued, is fully incorporated into the Contract by reference.

B. Failure by City to identify a deficiency in the insurance documentation provided by Contractor or failure of City to demand verification of coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor’s obligation to maintain such insurance.

2.07 ASSIGNMENT AND SUBLETTING OF CONTRACT

C. Assignment

The Contract shall not be assigned except with the consent of the Superintendent or his/her designee.

Requests for assignment of this contract must be in writing with the written consent of the surety, and the request must show the proposed person or organization to which the contract is assigned is capable, experienced, and equipped to perform such work. The proposed substitute person or organization may be required to submit to the City information as to his/her experience, financial ability and give statements covering tools, equipment, organization, plans and methods to fulfill any portion of the Contract prior to approval of assignment.

D. Subletting

The Contract shall not be sublet except with the written consent of the Superintendent or his/her designee. In the event that a prequalified electrical contractor is necessary to perform certain portions of the work, such work may be subcontracted with a City prequalified electrical contractor for the type of work involved.

Requests for subletting of this Contract must be in writing with the written consent of the Surety, and the request must show the proposed person or organization to which the Contract is sublet is capable, experienced and equipped to perform such work. The proposed substitute person or organization may be required to submit to the City information as to his experience, financial ability and give statements covering tools, equipment, organization, plans and methods to fulfill any portion of the Contract prior to approval of subletting.

The written consent approving the subletting of the Contract shall not be construed to relieve the Contractor of his/her responsibility for the fulfillment of the Contract. The Subcontractor shall be considered to be the agent of the Contractor and the Contractor agrees to be responsible for all the materials, work and indebtedness incurred by the agent.

A subcontractor shall not sublet any portion of a subcontract for work with the City without the written consent of the City.

2.08 DELAY

E. Extension of Time

With the written approval of the Superintendent or his/her designee, the Contractor may be granted additional time for completion of the work required under this Contract, if, in the Superintendent's opinion the additional time requested arises from unavoidable delay.

F. Unavoidable Delay

Unavoidable delays in the prosecution of the work shall include only delays from causes beyond the control of the Contractor and which he/she could not have avoided by the exercise of due care, prudence, foresight and diligence. Delay caused by persons other than the Contractor, Subcontractors or their employees will be considered unavoidable delays insofar as they necessarily interfere with the Contractor's completion of the work, and such delays are not part of this Contract.

Unavoidable delay will not include delays caused by weather conditions, surveys, measurements, inspections and submitting plans to the Engineer of the particular Division involved in administering this Contract.

2.09 GUARANTEE

A. Guarantee for Construction, Labor or Services Contract

Neither the final certificate of payment or any provision in the Contract Documents, nor partial or entire occupancy of the premises by the City, shall constitute an acceptance of work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final acceptance of the work unless a longer period is specified. The city will give notice of observed defects with reasonable promptness.

If it has been discovered, before payment is required under the terms of the Contract, that there is a failure to comply with any of the terms and provisions of this Contract, the City has the right and may withhold payment.

In case of a failure of any part of the work, materials, labor, and equipment furnished by the Contract or to fully meet all of the requirements of the Contract, the Contractor shall make such changes as may be necessary to fully meet all of the specifications and requirements of this Contract. Such changes shall be made at the Contractor's sole cost and expense without delay and with the least practicable inconvenience to the City of Tacoma. Rejected material and equipment shall be removed from the City's property by and at the expense of the Contractor.

B. Guarantee for Supply Contracts

Unless a longer period is specified, the supplier and/or manufacturer of the supplies, materials and/or equipment furnished pursuant to this Contract agrees to correct any defect or failure of the supplies, materials and/or equipment which occurs within one year from the date of: (1) test energization if electrical or mechanical equipment; (2) commencement of use if supplies or materials, provided, however, said guarantee period shall not extend beyond eighteen months after date of receipt by the City. All of the costs (including shipping, dismantling and reinstallation) of repairs and/or corrections of defective or failed equipment, supplies and/or material is the responsibility of the supplier and/or manufacturer.

When the supplier is not the manufacturer of the item of equipment, supplier agrees to be responsible for this guarantee and supplier is not relieved by a manufacturer's guarantee.

C. Guarantee Period Extension

The Contract guarantee period shall be suspended from the time a significant defect is first documented by the City until the work or equipment is repaired or replaced by Contractor and accepted by the City. In addition, in the event less than ninety (90) days remain on the guarantee period (after recalculating), the guarantee period shall be extended to allow for at least ninety (90) days from the date the work or equipment is repaired or replaced and accepted by the City.

2.10 DEDUCTIONS FOR UNCORRECTED WORK

If the City of Tacoma deems it expedient to correct work not done in accordance with the terms of this Contract, an equitable deduction from the Contract price shall be made.

2.11 CITY OF TACOMA'S RIGHT TO TERMINATE CONTRACT

A. Termination for Convenience

1. Supplies. The City may terminate a Contract for supplies at any time upon prior written notice to Contractor. Upon the effective date of termination specified in such notice, and payment by the City, all conforming supplies, materials, or equipment previously furnished hereunder shall become its property.

2. Services. The City may terminate a Contract for services at any time, with or without cause, by giving 10-business day's written notice to Supplier. In the event of termination, all finished and unfinished work prepared by Supplier pursuant to the Contract shall be provided to the City. In the event City terminates the Contract due to the City's own reasons and without cause due to Supplier's actions or omissions, the City shall pay Supplier the amount due for actual work and services necessarily performed under the Contract up to the effective date of termination, not to exceed the total compensation set forth in the Contract.

B. Termination for Cause

1. The City may terminate a Contract for either services or supplies in the event of any material breach of any of the terms and conditions of the Contract if the Contractor's breach continues in effect after written notice of breach and 30 days to cure such breach and fails to cure such breach

2. Bankruptcy. If the Contractor should be adjudged as bankrupt, or makes a general assignment for the benefit of creditors, or a receiver should be appointed on account of his/her insolvency, or if he/she or any of his/her subcontractors should violate any of the provisions of the Contract, or if the work is not being properly and diligently performed, the City of Tacoma may serve written notice upon the Contractor and Surety, executing the Payment and Performance Bond, of its intention to terminate the Contract; such notice will contain the reasons for termination of the Contract, and unless within 10 days after the serving of such notice, such violation shall cease and an arrangement satisfactory to the City of Tacoma for correction thereof shall be made, the Contract shall, upon the expiration of said I 0 days, cease and terminate and all rights of the Contractor hereunder shall be forfeited. In the event the Contract is terminated for cause, Contractor shall not be entitled to any lost profits resulting therefrom.

3. Notice. In the event of any such termination for cause, the City of Tacoma shall immediately send (by regular mail or other method) written notice thereof to the Surety and the Contractor. Upon such termination the Surety shall have the right to take over and perform the Contract, provided however, the Surety must provide written notice to the City of its intent to complete the work within 15 calendar days of its receipt of the original written notice (from the City) of the intent to terminate. Upon termination and if the Surety does not perform the work, the City of Tacoma may take over the work and prosecute the same to completion by any method it may deem advisable, for the account of and at the expense of the Contractor, and the Contractor and the Surety shall be liable to the City of Tacoma for all cost occasioned to the City of Tacoma thereby. The City of Tacoma may without liability for doing so, take possession of and utilize in completing the work, such materials, equipment, plant and other property belonging to the Contractor as may be on the site of the work and necessary, therefore.

2.12 LIENS

In the event that there are any liens on file against the City of Tacoma, the City of Tacoma shall be entitled to withhold final or progress payments to the extent deemed necessary by the City of Tacoma to properly protect the outstanding lien claimants until proper releases have been filed with the City Clerk.

2.13 LEGAL DISPUTES

A. General

Washington law shall govern the interpretation of the Contract. The state or federal courts located in Pierce County Washington shall be the sole venue of any mediation, arbitration, or litigation arising out of the Contract.

Respondents providing submittals from outside the legal jurisdiction of the United States of America will be subject to Tacoma's City Attorney's Office (CAO) opinion as to the viability of possible litigation pursuant to a contract resulting from this Specification. If it is the opinion of the CAO that any possible litigation would be beyond reasonable cost and/or enforcement, the submittal may be excluded from evaluation.

B. Attorney Fees

For contracts up to $250,000, which become the subject of litigation or arbitration, the substantially prevailing party may be entitled to reasonable attorney fees, as provided in RCW 39.04.240. Provided, however, the attorney fee hourly rate for the City of Tacoma's assistant city attorneys is agreed to be $150 per hour or the same as the hourly rate for Contractor's legal counsel, whichever is greater.

2.14 DELIVERY

Prices must be quoted F.O.B. destination, freight prepaid and allowed with risk of loss during transit remaining with Contractor/Supplier (unless otherwise stated in these Specifications) to the designated address set forth in these Specifications.

Deliveries shall be between 9:00 a.m. and 3:30 p.m.; Monday through Friday only (except legal holidays of the City of Tacoma).

Legal holidays of the City of Tacoma are:

New Year's Day	January I
Martin Luther King's Birthday	3rd Monday in January
Washington's Birthday	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	1st Monday in September
Veteran's Day	November 11
Thanksgiving Day	4th Thursday of November
Day after Thanksgiving	4th Friday of November
Christmas Day	December 25

When any of these holidays occur on Saturday or Sunday, the preceding Friday or the following Monday, respectively, is a legal holiday for the City of Tacoma.

2.15 PACKING SLIPS AND INVOICES

A. Packing slips and shipping notices shall be sent to the specific City Division or Department receiving the item(s) at the address stated in City's Solicitation or as otherwise stated in the Contract and include complete description of items, contents of items if crated or cased, quantity, shipping point, carrier, bill of lading number and City of Tacoma purchase order.

B. Each invoice shall show City of Tacoma purchase order number, release number if applicable, quantity, unit of measure, item description, unit price and extended price for each line if applicable, services and deliverables provided if applicable. Line totals shall be summed to give a grand total to which sales tax shall be added, if applicable.

1. For transactions conducted in SAP Ariba, invoices shall be submitted through Ariba.
2. For invoices paid by ACH or by check, unless stated otherwise, invoices shall be electronically submitted by email with corresponding PO number listed in the subject line to accountspayable@cityoftacoma.org.

3. For invoices paid by credit card, invoices shall also display the last name of the cardholder and last four digits (only) of the card number (e.g., Jones/6311). Unless stated otherwise, invoices shall be electronically submitted by email with corresponding PO number listed in the subject line to (do not combine different POs into one invoice or charge) to pcardadmin@cityoftacoma.org.

2.16 APPROVED EQUALS

A. Unless an item is indicated as "No substitute", special brands, when named, are intended to describe the standard of quality, performance or use desired. Equal items will be considered by the city, provided that the respondent specifies the brand and model, and provides all descriptive literature, independent test results, product samples, local servicing, and parts availability to enable the City to evaluate the proposed "equal".

B. The decision of the City as to what items are equal shall be final and conclusive. If the City elects to purchase a brand represented by the respondent to be an "equal", the City's acceptance of the item is conditioned on the City's inspection and testing after receipt. If, in the sole judgment of the City, the item is determined not to be an equal, the item shall be returned at the respondent's expense.

C. When a brand name or level of quality is not stated by the respondent, it is understood the offer is exactly as specified. If more than one brand name is specified, respondents must clearly indicate the brand and model/part number being bid.

2.17 ENTIRE AGREEMENT

This written contract represents the entire Agreement between the parties and supersedes any prior oral statements, discussions, or understandings between the parties.

2.18 CODE OF ETHICS

The City's Code of Ethics, Chapter 1.46, Tacoma Municipal Code, provides ethical standards for City personnel and prohibits certain unethical conduct by others including respondents and contractors. Violation of the City's Code of Ethics will be grounds for termination of this contract.

2.19 FEDERAL FINANCIAL ASSISTANCE

If federal funds, including FEMA financial assistance to the City of Tacoma, will be used to fund, pay or reimburse all or a portion of the Contract, Contractor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives and the following clauses will be incorporated into the Contract:

A. EQUAL EMPLOYMENT OPPORTUNITY During the performance of this Contract, Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

1. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

3. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other

employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

5. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

6. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

7. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

8. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

B. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (B)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (B)(1) of this section, in the sum of $27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

3. Withholding for unpaid wages and liquidated damages. The City shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (B)(2) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (B)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (B)(1) through (4) of this section.

C. CLEAN AIR ACT

1. Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

2. Contractor agrees to report each violation to the city and understands and agrees that the City will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

3. Contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA.

D. FEDERAL WATER POLLUTION CONTROL ACT

1. Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

2. Contractor agrees to report each violation to the city, understands, and agrees that the City will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

3. Contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA.

E. DEBARMENT AND SUSPENSION

1. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

2. Contractor must comply with 2 C.F.R. pt. 180, subpart C and2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

3. This certification is a material representation of fact relied upon by the City. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to (insert name of recipient/subrecipient/applicant), the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

4. Contractor agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

F. BYRD ANTI-LOBBYING AMENDMENT

1. Contractors who apply or bid for an award of $100,000 or more shall file the required certification with City. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the city.

2. If applicable, Contractor must sign and submit to the city the following certification:

APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor,_____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap.38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

_____

Signature of Contractor’s Authorized Official

_____

Name and Title of Contractor’s Authorized Official

_____Date

G. PROCUREMENT OF RECOVERED MATERIALS

1. In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:

   a. Competitively within a timeframe providing for compliance with the contract performance schedule;

   b. Meeting contract performance requirements; or

   c. At a reasonable price.

2. Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program.

3. Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

SECTION III - CONSTRUCTION AND/OR LABOR CONTRACTS (Should we delete Section III – see Specials)

SECTION III REQUIREMENTS APPLY ONLY TO CONSTRUCTION AND/OR LABOR CONTRACTS AND ARE IN ADDITION TO APPLICABLE REQUIREMENTS CONTAINED IN SECTION II CONTRACT REQUIREMENTS.

3.01 RESPONDENT'S DUTY TO EXAMINE

The Respondent agrees to be responsible for examining the site(s) and to have compared them with the Specifications and Contract Drawings, and to be satisfied as to the facilities and difficulties attending the execution of the proposed Contract (such as uncertainty of weather, floods, nature, and condition of materials to be handled and all other conditions, obstacles, and contingencies) before the delivery of his/her Proposal. No allowance will be subsequently made by the city on behalf of the Respondent by reason of any error or neglect on Respondent's part, for such uncertainties as aforesaid.

3.02 PERMITS

Except when modified by the Special Provisions, the Contractor shall procure and pay for all permits and licenses necessary for the completion of this Contract including those permits required by the City of Tacoma. The city will obtain county or state road crossing permits if required. In the event a necessary permit is not obtained, the Contractor will not be permitted to work on items subject to said permit and any delays caused thereby will not be subject to extra compensation or extensions.

3.03 NOTIFICATION OF OTHER GOVERNMENTAL AGENCIES AND UTILITIES WHEN UNDERGROUND WORK IS INVOLVED

The Contractor shall notify all other affected governmental agencies and utilities whenever underground work is done under the terms of this Contract. The Contractor is required to obtain permission of the appropriate public and private utilities and governmental agencies before performing underground work pursuant to the terms of this Contract. The Contractor is required to call "one call" at 1-800-424-5555 for all work involving excavation or digging more than 12 inches beneath ground or road surface.

The City may have indicated on the plans and specifications the existence of certain underground facilities that are known to the City department responsible for this Contract. It is the Contractor's responsibility to fully comply with the Underground Utility Locate Law, Chapter 19.122 RCW. If the site conditions are "changed or differing" as defined by RCW 19.122.040(I), the Contractor may pursue the party responsible for not properly marking or identifying the underground facility. The Contractor agrees not to file any claim or legal action against the City (department responsible for this Contract) for said "changed or differing" conditions unless said City department is solely responsible for the delay or damages that the Contractor may have incurred.

3.04 TRENCH EXCAVATION BID ITEM

In the event that "trench excavation" in excess of four feet requires a safety system pursuant to Washington State law and safety shoring, sloping, sheeting, or bracing is used, a separate bid item should be set forth in the Proposal for this work. If a separate bid item is not set forth in the Proposal pages, said installed safety system shall be paid at $3.00 per lineal foot of trench, which unit price includes both sides of the trench.

3.05 SAFETY

A. General

The Contractor shall, at all times, exercise adequate precautions for the safety of all persons, including its employees and the employees of a Subcontractor, in the performance of this Contract and shall comply with all applicable provisions of federal, state, county and municipal safety laws and regulations. It is the Contractor's responsibility to furnish safety equipment or to contractually require Subcontractors to furnish adequate safety equipment relevant to their responsibilities.

The Contractor shall obtain the necessary line clearance from the inspector before performing any work in, above, below or across energized Light Division circuits.

The Inspector and/or Engineer may advise the Contractor and the Safety Officer of any safety violations. It is the Contractor's responsibility to make the necessary corrections. Failure to correct safety violations is a breach of this Contract and, as such, shall be grounds for an order from the Safety Officer, inspector, or Engineer to cease further work and remove from the job site until the condition is corrected. Time and wages lost due to such safety shutdowns shall not relieve the Contractor of any provisions of Section 3.14 of this Specification and shall be at the sole cost of the Contractor. The purpose of this authority to stop work is to enforce the contract and not to assume control except to the extent necessary to ensure compliance with the provisions of this contract.

Any of the above actions by employees of the City of Tacoma shall in no way relieve the Contractor of his/her responsibility to provide for the safety of all persons, including his/her employees.

B. Work Hazard Analysis Report

The Contractor will be required to complete a work hazard analysis report. This report shall outline how the Contractor proposes to satisfy all safety laws and regulations involved in performing the work. This report shall be completed and submitted to the City Safety Officer before the pre-construction conference. A copy of the report shall be maintained at the work site (accessible to the supervisor).

3.06 PROTECTION OF WORKERS AND PROPERTY

The Contractor shall erect and maintain good and sufficient guards, barricades, and signals at all unsafe places at or near the work and shall, in all cases, maintain safe passageways at all road crossings, and crosswalks, and shall do all other things necessary to prevent accident or loss of any kind.

The Contractor shall protect from damage all utilities, improvements, and all other property that is likely to become displaced or damaged by the execution of the work under this Contract.

The Contractor is responsible for all roads and property damaged by his/her operations as shall be determined by the Engineer administering this Contract. The Contractor shall be responsible for repairing all damage to roads caused by his/her operations to the satisfaction of the particular governmental body having jurisdiction over the road.

3.07 CONTRACTOR - SUPERVISION AND CHARACTER OF EMPLOYEES

A. Superintendent to Supervise Contractor's Employees

The Contractor shall keep on his/her work, during its progress, a competent superintendent, and any necessary assistants, all of whom must be satisfactory to the City of Tacoma. The Contractor's superintendent shall not be changed except with the consent of the City of Tacoma unless the Contractor's superintendent proves to be unsatisfactory to the Contractor and ceases to be in his/her employ. The Contractor's superintendent shall represent the Contractor in his/her absence and all directions given to him/her shall be binding as if given to the Contractor directly. The Contractor shall give efficient supervision to the work, using his/her best skill and attention.

B. Character of Contractor's Employees

The Contractor shall employ only competent, skillful, faithful, and orderly persons to do the work, and whenever the Engineer administering the Contract shall notify the Contractor in writing that any person on the work is, in his or her opinion, incompetent, unfaithful, disorderly, or otherwise unsatisfactory, the Contractor shall forthwith discharge such persons from the work and shall not again employ him or her on this Contract.

3.08 CONTRACTOR'S COMPLIANCE WITH THE LAW

A. Hours of Labor

The Contractor and Subcontractors shall be bound by the provisions of RCW Chapter 49.28 (as amended) relating to hours of labor. Except as set forth in the Special Provisions, eight (8) hours in any calendar day shall constitute a day's work on a job performed under this Contract.

In the event that the work is not performed in accordance with this provision and in accordance with the laws of the State of Washington, then this Contract may be terminated by the City of Tacoma for the reason that the same is not performed in accordance with the public policy of the State of Washington as defined in said statutes.

B. Prevailing Wages

If federal, state, local, or any applicable law requires Supplier to pay prevailing wages in connection with a Contract, and Supplier is so notified by the City, then Supplier shall pay applicable prevailing wages.

If applicable, a Schedule of Prevailing Wage Rates and/or the current prevailing wage determination made by the Secretary of Labor for the locality or localities where the Contract will be performed is attached and made of part of the Contract by this reference. If prevailing wages do apply to the Contract, Supplier and its subcontractors shall:

1. Be bound by and perform all transactions regarding the Contract relating to prevailing wages and the usual fringe benefits in compliance with the provisions of Chapter 39.12 RCW, as amended, the Washington State Prevailing Wage Act and/or the Davis-Bacon Act (40 U.S.C. 3141- 3144, and 3146-3148) and the requirements of 29 C.F.R. pt. 5 as may be applicable, including the federal requirement to pay wages not less than once a week,

2. Ensure that no worker, laborer or mechanic employed in the performance of any part of the Contract shall be paid less than the prevailing rate of wage specified on that Schedule and/or specified in a wage determination made by the Secretary of Labor (unless specifically preempted by federal law, the higher of the Washington state prevailing wage or federal Davis-Bacon rate of wage must be paid)and Additionally, in compliance with applicable federal law, contractors are required to pay wages not less than once a week.

3. Immediately upon award of the Contract, contact the Department of Labor and Industries, Prevailing Wages section, Olympia, Washington and/or the federal Department of Labor, to obtain full information, forms and procedures relating to these matters. Per such procedures, a Statement of Intent to Pay Prevailing Wages and/or other or additional documentation required by applicable federal law, must be submitted by Contractor and its subcontractors to the City, in the manner requested by the City, prior to any payment by the City hereunder, and an Affidavit of Wages Paid and/or other or additional documentation required by federal law must be received or verified by the City prior to final Contract payment. In the event any dispute arises as to what are the prevailing rates of wages for work of a similar nature and such dispute cannot be adjusted by the parties in interest, including labor and management representatives, the matter shall be referred for arbitration to the Director of the State of Washington, Department of Labor and industries whose decision shall be final, conclusive and binding on all parties involved in the dispute.

3.09 COPELAND ANTI-KICKBACK ACT

For contracts subject to Davis Bacon Act the following clauses will be incorporated into the Contract:

A. Contractor. The contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.

B. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as FEMA may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.

C. Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.

3.10 CHANGES

A. In Plans or Quantities

The City of Tacoma, without invalidating this Contract, or any part of this Contract, may order extra work or make reasonable changes by altering, adding to or deducting from the materials, work and labor and the Contract sum will be adjusted accordingly. All such work and labor shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change. When work or bid items are deducted, reduced, or eliminated, it is agreed that no payment will be made to Contractor for anticipated profit.

B. Extra Work

Any claim or order for extra materials, work and labor made necessary by alterations or additions to the plans or by other reasons for which no price is provided in this Contract, shall not be valid unless the Contractor and Engineer administering the Contract have agreed upon a price prior to commencing extra work, and the agreement has been signed by the Contractor and approved by the Superintendent or his/her designee, and approved by the payment and performance bond surety.

C. Extra Work - No Agreed Price

If it is impracticable to fix an increase in price definitely in advance, the order may fix a maximum price which shall not under any circumstances, be exceeded, and subject to such limitation, such alteration, modification, or extra shall be paid for at the actual necessary cost as determined by the City of Tacoma, which cost (including an allowance for profit) shall be determined as the sum of the following items (1) to (7) inclusive:

(1) Labor, computed at regular wage scale, including premium on compensation insurance and charge for social security taxes, and other taxes, pertaining to labor; no charge for premium pay shall be allowed unless authorized by the Engineer administering the Contract.

(2) The proportionate cost of premiums on comprehensive general liability and other insurance applicable to the extra work involved and required under this Contract.

(3) Material, including sales taxes pertaining to materials.

(4) Plant and equipment rental, to be agreed upon in writing before the work is begun; no charge for the cost of repairs to plant or equipment will be allowed.

(5) Superintendence, general expense, and profit computed at 20 percent of the total of paragraphs (1) to (4) inclusive.

(6) The proportionate cost of premiums on bonds required by this Contract, computed by 1 1/2 percent of the total of paragraphs (1) to (5) inclusive.

(7) The City of Tacoma reserves the right to furnish such materials as it may deem expedient, and no allowance will be made for profit thereon.

Whenever any extra work is in progress, for which the definite price has not been agreed on in advance, the Contractor shall each day, report to the Engineer the amount and cost of the labor and material used, and any other expense incurred in such extra work on the preceding day, and no claim for compensation for such extra work will be allowed unless such report shall have been made.

The above-described methods of determining the payment for work and materials shall not apply to the performance of any work or the furnishing of any material, which, in the judgment of the Engineer administering the Contract, may properly be classified under items for which prices are established in the Contract.

D. Claims for Extra Work

If the Contractor claims that any instructions by drawings or otherwise, involve extra cost under this Contract, he/she shall give the City of Tacoma written notice thereof within 30 days after receipt of such instruction, and in any event before proceeding to execute the work, except in an emergency endangering life or property, and the procedures governing the same shall be as provided for immediately above in this paragraph. The method in these paragraphs is the only method available to the Contractor for payment of claims for extra work performed under the terms of this Contract.

3.11 CLEANING UP

The Contractor shall at all times, at his/her own expense, keep the premises free from accumulation of waste materials or debris caused by any workers or the work, at the completion of the work the Contractor shall remove all his waste materials from and about the site and all his/her equipment, sanitary facilities, and surplus materials. In the case of dispute, the City of Tacoma may remove the debris and charge the cost to the Contractor as the City of Tacoma shall determine to be just. All material that is deposited or placed elsewhere than in places designated or approved by the Engineer administering the Contract will not be paid for and the Contractor may be required to remove such material and deposit or place it where directed.

3.12 PROGRESS PAYMENT

Progress payments will be made up to the amount of ninety-five percent (95%) of the actual work completed as shall be determined by the Engineer administering the Contract.

The Contractor may request that an escrow account be established as permitted by law, in which event the Contractor will earn interest on the retained funds.

When the time for construction, services and/or installation will exceed thirty (30) days, the Contractor may request, by invoice, to be paid a progress payment based on percentage of work completed. The Engineer will review and approve the progress payment request on a monthly basis.

3.13 FINAL PAYMENT

The final payment of five percent (5%) of the Contract price shall be approved on final acceptance of the work under this Contract by the Superintendent or his/her designee. In addition, before final payment is made, the Contractor shall be required to:

A. Provide a certificate from the Washington State Department of Revenue that all taxes due from the Contractor have been paid or are collectible in accordance with the provisions of Chapter 60.28 and Title 82 of the Revised Code of Washington.

B. Provide the General Release to the City of Tacoma on the form set forth in these Contract documents.

C. Provide a release of any outstanding liens that have been otherwise filed against any monies held or retained by the City of Tacoma.

D. File with the City Director of Finance, and with the Director of the Washington State Department of Labor and Industries, on the state form to be provided, an affidavit of wages paid.

E. File with the City Director of Finance, on the state form to be provided, a statement from the State of Washington, Department of Labor, and Industries, certifying that the prevailing wage requirements have been satisfied.

F. File with the City Director of Finance, on the state form to be provided, a statement of release from the Public Works Contracts Division of the State of Washington, Department of Labor, and Industries, verifying that all industrial insurance and medical aid premiums have been paid.

If there is a fee assessed to the city for any certificate, release or other form required by law, the contractor agrees that the fee amount may be passed on to the Contractor and deducted from the monies paid to the Contractor.

3.14 FAILURE TO COMPLETE THE WORK ON TIME

Should the completion of the work required under the Contract be delayed beyond the expiration of the period herein set for the completion of said work, or such extension of said period as may be allowed by reason of unavoidable delays, there shall be deducted from the total Contract price of work, for each calendar day by which such completion shall be delayed beyond said period of such extension thereof the sum of $300 or a sum of money as set forth hereinafter in these Specifications, as the amount of such deduction per calendar day.

Said sum shall be considered not as a penalty, but as liquidated damages, which the City will suffer by reason of the failure of the Contractor to perform and complete the work within the period, herein fixed or such extensions of said period as may be allowed by reason of unavoidable delays.

Any money due or to become due the Contractor may be retained by the City to cover said liquidated damages, and should such money not be sufficient to cover such damages, the City shall have the right to recover the balance from the Contractor or his/her Sureties.

The filing of any bid for the work herein contemplated shall constitute acknowledgment by the Respondent that he/she understands, agrees and has ascertained that the City will actually suffer damages to the amount hereinabove fixed for each and every calendar day during which the completion of the work herein required shall be delayed beyond the expiration of the period herein fixed for such completion or such extension of said period as may be allowed by reason of unavoidable delays.

3.15 CITY RESERVES RIGHT TO USE FACILITIES PRIOR TO ACCEPTANCE

The City of Tacoma hereby reserves the right to use the facilities herein contracted prior to final acceptance under this Contract. The use of said facilities, as mentioned herein, shall not be construed as a waiver or relinquishment of any rights that the City of Tacoma has under this Contract.

3.16 LIST OF SUBCONTRACTORS

Bid proposals for construction, alteration, or repair of any building or other public works that may exceed $1,000,000 including tax shall satisfy the following requirement: Respondent shall submit as part of the bid, the names of the subcontractors, with whom the respondent, if awarded the contract, will subcontract performance of the work of heating, ventilation, and air conditioning, plumbing as described in chapter 18.106 RCW, and electrical as described in chapter 19.28 RCW, or to name itself for the work. The respondent shall not list more than one subcontractor for each category of work identified, unless subcontractors vary with bid alternates, in which case the respondent must indicate which subcontractor will be used for which alternate. Failure to comply with this provision or the naming of two or more subcontractors to perform the same work shall require the City (pursuant to state law RCW 39.30.060) to determine that respondent's bid is nonresponsive; therefore, the bid will be rejected.

Special Provisions

CITY OF TACOMA
TACOMA PUBLIC UTILITIES
TACOMA WATER

SPECIAL PROVISIONS

FOR

SPECIFICATION TW24-0129N

Indian Hilll 3.5MG Reservoir Re-Roof

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SPECIAL PROVISIONS
TW24-0129N
Indian Hill 3.5MG Reservoir Re-Roof

1. MINIMUM REQUIREMENTS

   Only bids from contractors with satisfactory experience and a successful performance record will be considered in awarding the contract. The Contractor must have experience in the construction, disinfection and pressure testing of 8-inch and larger pressure reducing valve stations for potable water distribution systems and have successfully completed jobs similar in scope. Bidders must complete the Record of Prior Contracts Form included in this Specification and submit it with their bid proposal. Bid submittals not demonstrating adequate experience may be rejected. The City shall be the sole judge of the bidder's ability to meet the requirements of this paragraph.

2. GENERAL PROVISIONS

   City of Tacoma General Provisions apply, except as modified by the Special Provisions.

3. INSURANCE REQUIREMENTS

   Successful proposer will provide proof of and maintain the insurance coverage in the amounts and in the manner specified in the City of Tacoma Insurance Requirements contained in this solicitation. (See Appendix C)

4. DESCRIPTION OF WORK

   The City of Tacoma (City) / Department of Public Utilities (TPU) / Water Division (Tacoma Water) is soliciting bids to establish a contract for the re-roof of a 3.5 million gallon concrete reservoir. The Indian Hill Reservoir is located off Orcas Drive NE in Federal Way, Washington. The concrete roof of the reservoir's 3.5 million gallon belowground concrete tank is covered by a hot mop pea gravel coating installed in 1981. The hot mop pea gravel coating has exceeded its expected useful lifespan of 20 years and has deteriorated with multiple areas of no roof covering. Additionally, there are concerns that the hot mop pea gravel may leach metals or other compounds which could enter the tank via rainwater through cracks in the roof. The objective of this project is to analyze the existing hot mop pea gravel material and prepare a disposal plan for the material once removed; remove the existing roof coating in its entirety, repair any cracks or flaws identified in the reservoir roof once the coating has been removed; evaluate the existing reservoir vents based on reservoir flowrates and upgrade the vents, to meet AWWA standards; and to install a new high performance coating system on the roof. A Tamoseal/Tammscoat Base Coat/Finish Coat by Euclid Chemical Company coating system will be installed on the tank roof.

This coating system was recently used by Tacoma Water as part of the successful Hood Street Reservoir Seismic Upgrades project. Also, initial evaluation of the tank indicates that current stormwater drainage patterns (i.e., sheet flow off the roof onto the surrounding ground) are adequate and drainage crickets are not necessary. Replacing the existing coating with a new high performance coating system will make these flow patterns more efficient and will decrease the potential for stormwater to pond on the reservoir roof. Overall, this project will repair any cracks in the reservoir roof, ensure the reservoir tank is sealed against and protected from rainwater intrusion, and bring the tank venting up to current standards.

5. ANTICIPATED CONTRACT TERMS

The term of the contract will end in accordance with the Special Provisions. The Contractor will have 60 days to successfully complete the project from the written Notice To Proceed.

6. CALENDAR OF EVENTS

This is a tentative schedule only and may be altered at the sole discretion of the City. The anticipated schedule of events concerning this RFB is as follows:

Pre-Bid Meeting:	**6/25/2024**
Question Deadline:	**6/25/2024**
City response to Questions:	**6/28/2024**
Submittal Due Date:	**7/8/2024**
Anticipated Award Date:	**7/29/2024**

7. BID INQUIRIES

7.1 Questions and request for clarifications of the specifications may be submitted in writing to Brandon Snow by email to bsnow@cityoftacoma.org. Subject line shall read: TW24-0129N – Indian Hill Re-Roof – (VENDOR NAME).

7.2 Questions are due by 3 pm on the date included in the Calendar of Events section. No further questions will be accepted after this date and time.

7.3 Questions marked confidential will not be answered or included.

7.4 The City reserves the discretion to group similar questions to provide a single answer or not to respond when the requested information is confidential.

7.5 The answers are not typically considered an addendum.

7.6 The City will not be responsible for unsuccessful submittal of questions.

7.7 Written answers to questions will be posted alongside these specifications at www.tacomapurchasing.org.

8. PRE-BID MEETING

A pre-bid meeting will be held at 10:00 a.m., PST, Tuesday, June 25, 2024 at the Indian Hill Reservoir located off Orcas Drive NE in Federal Way, Washington.

Questions and Requests for Clarification of the specifications may be submitted by the End of the Day (11:59pm) on Tuesday, June 25, 2024 to Brandon Snow by email to bsnow@cityoftacoma.org.

9. DISCLAIMER

The City is not liable for any costs incurred by the Respondent for the preparation of any materials or proposal submitted in response to this RFB, for conducting any presentations to the City, for any activities related to responding to this RFB, or for any subsequent requirements of the contract negotiation process.

10. RESPONSIVENESS

Bid submittals must provide ninety (90) days for acceptance by City from the due date for receipt of submittals. All submittals will be reviewed by the city to determine compliance with the requirements and instructions specified in this RFB. The Respondent is specifically notified that failure to comply with any part of this RFB may result in rejection of the submittal as non-responsive. The City reserves the right, in its sole discretion, to waive irregularities deemed immaterial. The City also reserves the right to not award a contract or to issue subsequent RFB's.

11. ADDITIONAL BIDDER INFORMATION

The City reserves the right to request additional information to ascertain acceptability prior to awarding the contract. Failure to supply requested information may be cause to reject the bid as non-responsive. If there is additional information or changes regarding these specifications, an addendum will be posted on the Purchasing website and those firms registered on the plan holder's list will be notified via email.

12. AWARD

Awardee shall be required to comply with 2 CFR part 25, and obtain a unique entity identifier and/or be registered in the federal System for Award Management as appropriate.

Award will be made to the lowest responsive, responsible bidder who meet the criteria listed in these Specifications.

All bidders shall provide unit or lump sum pricing for each line item. Each line item will be added up for a subtotal price. The subtotal price will be compared amongst each bidder, including any payment discount terms offered twenty (20) days or more. The city may also take into consideration all other criteria for determining award, including evaluation factors set forth in Municipal Code Section 1.06.262.

All other elements or factors, whether or not specifically provided for in this Specification, which

would affect the final cost and benefits to be derived by the City will be considered in determining the award of the contract. The final award decision will be based on the best interests of the city.

The City reserves the right to let the contract to the lowest responsible bidder whose bid will be the most advantageous to the City, price and any other factors considered. In evaluating the proposals, the city may also consider any of the following:

A. Compliance with these Specifications.
B. Proposal prices, listed separately if requested, as well as a lump sum total.
C. Time of completion/delivery.
D. Warranty terms.
E. Bidder's responsibility based on, but not limited to:
    - Ability, capacity, organization, technical qualifications, and skill to perform the contract or provide the services required.
    - References, judgment, experience, efficiency, and stability.
    - Whether the contract can be performed within the time specified.
    - Quality of performance of previous contracts or services

13. PREVAILING WAGE INFORMATION

If this project requires prevailing wages under chapter 39.12 RCW, any worker, laborer, or mechanic employed in the performance of any part of the work shall be paid not less than the applicable prevailing rate of wage.

The project site is located in Unincorporated Pierce County at the intersection of Aqueduct Dr E and 99th ST E.

The effective date for prevailing wages on this project will be the submittal deadline with these exceptions:

1. If the project is not awarded within six months of the submittal deadline, the award date is the effective date.
2. If the project is not awarded pursuant to a competitive solicitation, the date the contract is executed is the effective date.
3. Janitorial contracts follow WAC 296-127-023.

Except for janitorial contracts, these rates shall apply for the duration of the contract unless otherwise noted in the solicitation. Look up prevailing rates of pay, benefits, and overtime codes from this link: https://secure.lni.wa.gov/wagelookup/

REQUIRED FILINGS

The contractor and all subcontractors covered under 39.12 RCW shall submit to the Department of Labor and Industries (L&I) for work provided under this contract:

1. A Statement of Intent to Pay Prevailing Wages must be filed with and approved by L&I

upon award of contract.

2. An Affidavit of Wages Paid must be filed with and approved by L&I upon job completion.

Payments cannot be released by the city until verification of these filings are received by the Engineer. Additional information regarding these filings can be obtained by calling the Department of Labor & Industries, Prevailing Wage at 360-902-5335, https://secure.lni.wa.gov/ or by visiting their MY L&I account.

14. BID BOND, PERFORMANCE BOND AND PAYMENT BOND

A bid bond is not required for this project.

A performance and payment bond are both required for this project. Bonds will include a power of attorney, will be for 100% of the Contract total and is subject to the following requirements:

A. The City's performance and payment bond forms must be used.

B. The performance and payment bonds must be executed by a surety company licensed to do business in the state of Washington.

C. The cost of a performance and payment bonds must be included in submittal prices. Bonds will not be paid as a separate line item.

15. WARRANTY

Labor: Minimum three (3) year warranty.

Parts: Manufacturer's warranty or minimum one-year warranty whichever is greater.
Contractor shall arrive on-site at the **Indian Hill Reservoir within 24 hours** of notification for all warranty repairs during normal work hours of 8:00 a.m. to 5:00 p.m. Monday through Friday.
Repairs shall include free pick-up and delivery. Repairs must be completed and vehicle returned within 48 hours of pick-up.
Contractor agrees to allow City to make minor warranty repairs where that is most cost effective and, if requested, contractor will credit City for cost of parts, but not labor.
Vendor will warrant goods according to the manufacturer's warranty guidelines. The start of the warranty commences once the goods are delivered and accepted by the City.

Any defect in workmanship or materials in this project during the first year after acceptance shall be promptly remedied by the Contractor at no expense to the City.
See Section 2.09 of the General Provisions.

16. INSPECTION

All goods and services are subject to inspection and final acceptance by the City. If any inspection fails, the Contractor shall be required to make arrangements to exchange the goods at their own expense and replace it in a timely manner acceptable to the City.

Material or equipment failing to meet the requirements of this contract will be held at the

Contractor's risk and may be returned to the Contractor. If so returned, the cost of transportation, unpacking, inspection, repackaging, reshipping, or other like expenses are the responsibility of the Contractor.

17. COMPLIANCE WITH SPECIFICATIONS

All products shall be new and unused. Any product that does not comply with any part of these Specifications shall be rejected and the Contractor shall, at its own expense and including shipping, replace the item.

18. MATERIALS AND WORKMANSHIP

The successful bidder shall be required to furnish all materials necessary to perform the contractual requirements as specified in these Specifications. Materials and workmanship for this contract shall conform to all codes, regulations and requirements for such specifications contained herein and the normal uses for which intended. Material shall be manufactured in accordance with the best commercial practices and standards for this type of goods. All literature and products must be packaged and labeled to sell in the United States.

Work shall be performed in a workmanlike manner, by craftsmen skilled in the particular trade, according to best method known for each craft. Work shall be performed in accordance with the Engineer approved Plans, Specifications, manufacturers' recommendations, and the best practices of the trade. Completed work shall present a neat and finished appearance. Lay work to true lines, plumb and level, except as otherwise noted.

Unless otherwise indicated, the Contractor shall provide all high quality, new and unused materials, free from any defects, and suitable for the intended use and the space provided. All materials shall be the best available for the purpose intended as dictated by the best current engineering practice. Materials shall be approved by the latest Standards of Underwriters Laboratories (UL), American Society for Testing Materials (ASTM), Factory Mutual (FM), American Water Works Association (AWWA), and the National Electrical Manufacturers Association (NEMA), wherever standards have been established by those organizations.

Contractor shall furnish and install all incidental items not specifically shown or specified, which are required by good practice to provide a complete and fully operational system. Where two or more units of the same class of material or equipment are required, provide products of a single manufacturer/supplier.

19. ENVIRONMENTALLY PREFERABLE PROCUREMENT

In accordance with the City's Sustainable Procurement Policy and Climate Action Plan, it is the policy of the City of Tacoma to encourage the use of products or services that help to minimize the environmental and human health impacts of City Operations. Respondents are encouraged to incorporate environmentally preferable products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, products, manufacturing, packaging, distribution reuse, operation, maintenance or disposal of the product or service.

The City of Tacoma encourages the use of sustainability practices and desires any awarded contractor(s) to assist in efforts to address such factors when feasible for:

- Durability, reusability, or refillable
- Pollutant releases, especially persistent bioaccumulative toxins (PBTs), low volatile organic compounds (VOCs), and air quality and stormwater impacts
- Toxicity of products used
- Greenhouse gas emissions, including transportation of products and services, and embodied carbon
- Recycled content
- Energy and water resource efficiency

20. LEAP REQUIREMENTS

This project has no LEAP requirements, however, the City of Tacoma is committed to equality in employment for WA-State approved Apprentices, City of Tacoma residents, residents of local economically distressed areas, youth, veterans, minorities, and women. Please contact the LEAP Office for assistance in locating qualified employees. Visit the LEAP website for more information.

21. EQUITY IN CONTRACTING (See Template – Ask Doreen)

This project has EIC requirements. See Appendix B for City of Tacoma Equity in Contracting requirements for this project.

22. CODES, LAWS, AND REGULATIONS

The following laws, codes, and regulations shall be followed for the removal of soils, hazardous materials, and stormwater management:

A. Washington State Department of Labor and Industries Chapters 296-155 WAC, 296-24 WAC, 296-62 WAC

B. Washington State Department of Ecology Chapters 173-303 WAC, 173-304 WAC, 173-350 WAC

C. Code of Federal Regulations Chapters 29 and 40.

23. HOURS OF WORK

Except in the case of emergency or unless otherwise approved by the Contracting Agency, the normal straight time working hours for the contract shall be 7:30 a.m. to 4:30 p.m. with a maximum 1-hour lunch break and a 5-day work week, Monday through Friday. If a Contractor desires to perform work on holidays, Saturdays, Sundays, or before 7:30 a.m. or after 4:30 p.m. on any day, the Contractor shall apply in writing to the Engineer for permission to work such times. Permission to work longer than an 8-hour period between 7:30 a.m. and 4:30 p.m. is required. Such requests shall be submitted to the Engineer no later than seven (7) days prior to the day for which the Contractor is requesting permission to work.

Permission to work between the hours of 10:00 p.m. and 7:00 a.m. during weekdays and between the hours of 10:00 p.m. and 9:00 a.m. on weekends or holidays may be subject to noise control requirements. Approval to continue work during these hours may be revoked at any time the Contractor exceeds the Contracting Agency's noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor's operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.

Permission to work Saturdays, Sundays, holidays, or other hours than the agreed upon normal straight time working hours Monday through Friday, may be given and are subject to any conditions set forth by the Contracting Agency or Engineer. These conditions may include but are not limited to: requiring the Engineer or such assistants as the Engineer may deem necessary to be present during the work; requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency employees who worked during such times, on non-Federal aid projects; considering the work performed on Saturdays, Sundays, and holiday as working days with regards to the contract time; and considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period. Assistants may include, but are not limited to, survey crews; Water Division support personnel; inspectors; and other Contracting Agency employees when in the opinion of the Engineer, such work necessitates their presence.

24. PERMITS

The Contractor will be responsible for obtaining and paying for all permits required by Federal, State, County, and local authorities to perform any work activities including storage, generation, transportation, and disposal of hazardous materials and wastes and as set forth in Section 3.02 of the General Provisions.

It is the Contractor's responsibility to obtain:

- Demolition and Waste Disposal permits
- Storm Water Management permits

All other permits necessary for the completion of this project shall be the responsibility of the Contractor. The Contractor shall pay for, pick up and sign for any construction or transportation permits and all other permits that may be necessary.

25. GENERAL SPECIFICATIONS

Any part of the work not specifically covered by these Specifications shall comply with applicable sections of the latest editions of: Washington State Department of Transportation Standard Specification dated 2023 (WSDOT Standard Specifications), Washington State Department of Transportation Construction Manual, American Water Works Association (AWWA) Standard, National Electric Code (N.E.C.), the International Building Code (I.B.C.), Underwriters Laboratories (U.L.), the laws of the State of Washington, Tacoma Water,

Tacoma Power and Puget Sound Energy Standards.

Any inconsistences in the parts of the contract shall be resolved by the following order of precedence (e.g., 1 presiding over 2, 3, 4, etc.; 2 presiding over 3, 4, 5, 6, etc. and so forth:

1. Addenda
2. Proposal Form
3. Special Provisions
4. Technical Provisions
5. General Provisions
6. Contract Plans/Drawings
7. AWWA Standards
8. State Laws and Codes
9. State General Special Provisions
10. Standard Specifications

26. PROJECT ENGINEER / CONSTRUCTION LEAD

Project Engineer, Michel Peloquin, mpeloqui@cityoftacoma.org, (253) 377-1005
Construction Lead, Geff Yotter, gyotter2@cityoftacoma.org, (253) 377-5966

27. ENGINEER APPROVED EQUAL

When the statement “Engineer Approved Equal” is made on the drawing or in the Specification, it shall mean a like product, of equal or better quality, suitability, reliability, performance, and dimension to the specified item or product. If the Engineer does not consider the proposed substitute item or product an approved equal or better, it may be rejected. The decision of the Engineer is final.

28. DELIVERY, STORAGE AND HANDLING

Deliver materials to job site in original, new, and unopened packages and containers bearing manufacturer’s name, name of material, color name and number, thinning, and application instructions. Store material not in actual use in tightly covered containers.
Maintain containers used in storage of paint in a clean condition, free of foreign materials and residue. Store and mix materials in a safe manner. Comply with City, County, and State regulations and codes.

29. TEMPORARY FACILITIES

There are no facilities at this location. All temporary facilities described herein shall be provided by the Contractor. All temporary facilities shall meet applicable safety and health codes.

A. Temporary Toilets
The Contractor shall provide adequate chemical toilet facilities for all workers connected with the work. The facility shall be located where directed when work is started and kept in sanitary condition. The facility shall be removed when directed and the premises shall

be disinfected.

B. Temporary Electrical Light and Power
Power service is not available at this site. The Contractor shall provide any required power service.

C. Compressed Air
There is no compressed air service available at this site.
The Contractor shall provide any compressed air as required.

D. Water for Construction Purposes
Water service is not available for use by the Contractor at this site. Contractor shall be required to provide water as necessary for construction purposes.

E. Fire Suppression
Contractor shall provide a fire suppression water trailer at the work site.

F. Spill Kit
Contractor shall provide a hazardous material spill kit at the work site.

30. SECURITY

Security provided shall be at the sole discretion and expense of the Contractor. The Contractor shall be responsible for any damage pursuant to Section 2.05A of the General Provisions.
City will not provide security at this project site or for the project in general. The sole responsibility for security rests with the Contractor at the Contractor's sole expense.

31. SAFETY

At all times, the Contractor shall exercise adequate precautions for the safety of all persons, including employees, in the performance of this contract and shall comply with all applicable provisions of federal, state, county and municipal safety laws and regulations.

City's construction inspector and/or engineer may advise the Contractor and the Public Utilities Safety Officer of any safety violations. It is the Contractor's responsibility to correct the violation. Failure to correct safety violations shall be grounds for a cease order from the Public Utilities Safety Office, Engineer, or Inspector. Time and wages lost due to such safety shutdowns shall be at the sole cost of the Contractor. Time lost due to cease orders for safety violations will still be counted in the required number of days the Contractor has to complete the contract.
Any of the above actions by employees of the City shall in no way relieve the Contractor of his/her responsibility to provide for the safety of all persons, including his/her employees.

32. DAMAGE TO MATERIALS AND ACCIDENTS

The Contractor shall assume all responsibility for damage to or loss of material or completed work until final acceptance of the contract by the Engineer. Payment will not be made for the following:

i. Waste streams disposed in a manner that has not been approved by the Inspector/Engineer.

ii. Wastes improperly handled or improperly prepared for shipment.

iii. Waste containers lost, damaged, dropped, or otherwise destroyed during transport.

iv. Waste containers or product containers damaged, broken, vandalized, or otherwise destroyed by non-contract employees.

v. Waste streams disposed at an unapproved or unsanctioned facility.

vi. Clean up costs for any contamination caused as a result of the Contractor's activities.

vii. Other Contractor negligence.

33. EXISTING CONDITIONS

Prior to submitting their bid proposal, all bidders are responsible for examining the site and comparing it against these Specifications and Plans to have a complete understanding of any potential difficulties with the execution of the proposed contract (such as uncertainty of weather, floods, nature, and condition of materials to be handled and all other conditions, special work conditions including work scheduled, obstacles, and contingencies).

Any information provided by the City to the Contractor relating to the existing conditions on, under, or adjacent to the project site including, but not limited to, information pertaining to hazardous material abatement and other conditions affecting the project site represents only the opinion of the City as to the location, character or quantity of such conditions and is provided only for the convenience of the Contractor.

The City assumes no responsibility whatsoever with respect to the sufficiency or accuracy of such information. No guarantee is either expressed or implied that the conditions indicated or otherwise found by the Contractor as a result of any examination or exploration are representative of those existing throughout the work and/or project sites.

The Contractor shall carefully study and compare the contract documents with each other and shall at once report to the City any errors, inconsistencies, or omissions discovered. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency, or omission in the contract documents, without such notification to the City, the Contractor shall assume the risk and responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.

34. COMMENCEMENT, PRE-CONSTRUCTION, AND COMPLETION

The Contractor will be required to complete the contract documents and to provide a surety bond within ten (10) business days after the award of the contract. The Contractor may begin the work to be performed, for the proposal items in the contract, after the City's notification to commence is

issued. Notification to commence work may be either by letter, or if no letter is issued, by agreement at the pre-construction meeting.

The Contractor shall complete all work 60 calendar days from Notice to Proceed. If the Contractor fails to complete the work within the established time period, the City will assess liquidated damages at $1,000 per day in accordance with Section 3.14 of the General Provisions modified herein.

The Contractor will not perform any work unless instructed to do so by the Engineer or his/her authorized representative.

Following award of the contract, the Engineer will notify the selected Bidder of the time and date of the pre-construction meeting to be held at the Tacoma Public Utilities Building. The meeting agenda will cover contract compliance, safety and construction. The Contractor is encouraged to have representatives from his/her sub-contractors and their on-site forepersons in attendance.

In addition to the contract, the payment bond, performance bond, insurance and other documentation that is required during the contract execution process shall be submitted. These include the following construction documents:

1. Materials Submittals
2. Emergency Contact List
3. Construction Schedule

35. DIVISION OF WORK

The Contractor shall furnish and pay for all necessary materials and shall provide all labor, tools, equipment, and perform all work incidental to the completion of this project in accordance with the Plans, Specifications, and the instructions of the Engineer.

36. CONSTRUCTION PROGRESS SCHEDULES

a. The Contractor shall prepare a schedule of work using an acceptable method of scheduling to include a breakdown for each major feature of the work. The Contractor shall have his schedule available no later than the pre-construction meeting.

b. The schedule shall be activity-oriented showing as nearly as can be determined the starting and completion dates of each major feature of the work. Each sequence shall be shown with dates for beginning and completion.

c. Submittals: after initial review, under Section 36 of the Special Provisions, if the Engineer requires changes, the Contractor shall resubmit revised data within five (5) working days.

d. Within twenty (20) working days of the date of the contract, the Contractor and the Engineer will reach an agreement on any and all adjustments and modifications to the submitted schedule, which are warranted. The schedule, thus modified, will become part of the contract.

37. MATERIAL AND EQUIPMENT SUBMITTALS

Before any material is fabricated or shipped, the Contractor shall furnish to the Engineer two (2)

complete sets of subcontractor documents, equipment brochures, technical data, full details, dimensions, catalog cuts, schematic (elementary) diagrams, and other descriptive matter as required to fully describe the exact equipment proposed to be included in this contract. The names, addresses and phone numbers for the representative of each item shall also be included.

Should any item which deviates from these Specifications be included, the deviation shall be clearly indicated and explained at the time of submittal. The Contractor shall provide two (2) complete copies of submittal information. Submittals shall be complete, neat, orderly, and indexed. The submittals shall be indexed to reference the specification section for which the material/equipment is applicable. The Contractor shall check submittals for number of copies, adequate identification, correctness, and compliance with the Plans and Specifications. The Contractor shall revise and/or resubmit all submittal information until it is acceptable to the Engineer.

Review of submittal information by the Engineer shall not relieve the Contractor of responsibility for meeting the requirements of the Plans and Specifications, or for errors and omissions in submittals. Reviews by the City do not constitute an undertaking on the part of the City to assure or determine compliance with the Plans and Specifications.

Submittal section shall include at the minimum the following:

Schedule and work plan for the project (includes material procurement)

Pre-Construction Meeting (Work Hazard Analysis Report)

Occupational Health and Safety Plan

Temporary Erosion and Sediment Control Plan

Structural Submittals (per S-01):

- Concrete Mix & Source Data
    - Cementitious materials
    - Coarse and fine aggregates
    - Admixtures
    - Water
    - Ready-Mix Plant Certification
    - Mix Designs
    - Mix test results
    - Curing materials and program
    - Program and method of concrete placement
- Concrete Reinforcement
    - Certified mill test reports on reinforcement
    - Bar and wire fabric layouts
    - Bar bending diagrams
    - Assembly diagrams, including bar lap and splice locations
    - Bar supports and chairs
    - Mechanical bar connectors, including ICC-ES reports
    - Accessories and inserts layout

Mechanical connector layout (as needed)
- Concrete crack & spall repair (if repair is required)
  - Methods and materials for concrete repairs adhesive
  - Joint Fillers
  - Sealants
- Grouts
- Anchors, Fasteners, and Plates

Architectural Submittals
- Roof coating System
  - Product data on system components: Top coat, Prime coat, repair and sloping mortar, leveling mortar, sealant backer rod, sealant, flashing, etc.
  - Surface preparation product (if necessary)
  - Manufacturer's review & comments per 07 55 56, Part 1.03D
  - Certification of applicator licensing by the material manufacturer
- Joint sealant
- Vent Hoods
  - Vent hood cover
  - Wire mesh
  - FRP grating

Civil/Demo
- Project permits
- Solid Waste Management Plan
- Progress Documentation of solid waste disposal and/or diversion
- Waste Receiver information & documentation of receiver approval/acceptance of waste
- Any additional characterization of waste material
- Methods, materials, and applicable equipment calculations for removing existing roofing material

38. CLOSE-OUT PROCEDURES

The Contractor shall notify the Engineer in writing when all work or portions of the work are complete and ready for inspection. The Engineer or Construction Inspector will inspect the work and forward the results to the Contractor. The Contractor shall promptly correct any deficiencies noted.

The Contractor shall notify the Engineer in writing when all punch list deficiencies have been completed. The Engineer will promptly set a time for final inspection, at which time the Engineer or Construction Inspector, and the Contractor shall jointly inspect the work. The Contractor will promptly correct any further deficiencies noted.

39. DIFFERING SITE CONDITIONS / CHANGE ORDER

By entering into the contract, the Contractor represents that he/she has inspected in detail the project site and has become familiar with all the physical and local conditions affecting the project and/or the project site. Any information provided by the City to the Contractor relating to existing conditions on,

under, or to the project and/or site, including but not limited to information pertaining to subsurface exploration and conditions, borings, test pits, tunnels, and other conditions affecting the project site, represents only the opinion of the City as to the location, character, or quantity of such conditions. The Contractor shall draw his/her own conclusions from such information and make sure tests, reviews, and analyses as he/she deems necessary to understand such conditions and to prepare the Proposal. The City assumes no responsibility whatsoever with respect to the sufficiency or accuracy of such information and there is no guarantee either expressed or implied that the conditions indicated or otherwise found by the Contractor as a result of any examination or exploration are representative of those existing throughout the work and/or project site.

The Contractor shall carefully study and compare the contract documents and shall at once report to the City errors, inconsistencies, or omissions discovered. The Contractor shall immediately, and before conditions are disturbed, notify the Engineer or City Representative of conditions on the project site that may differ from what the Contractor believes were represented to the Contractor by the City, or unusual or unanticipated conditions that the Contractor believes were represented to the Contractor by the City, or unusual or unanticipated conditions that the Contractor believes would affect the Contractor's prosecution of the work required by the "Contract". If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency, or omission in the contract documents without such notice to the City, the Contractor shall assume the risk and responsibility for such performance and shall bear an appropriate amount of the attributing costs for correction. No claim by the Contractor for differing site conditions shall be allowed except as agreed upon in writing with the Engineer.

40. CONFLICT WITH OTHER UTILITIES AND IMPROVEMENTS

Surface and underground utilities and improvements, so far as known which may affect the work, are shown on the drawings. It shall be the Contractor's responsibility to comply with the one-call underground utility locate law, Chapter RCW 19.122 and to notify all utilities in the area prior to any excavation so that actual field locations of existing lines can be made.

It shall be the Contractor's responsibility to confirm or research depth of utilities. Test holing to determine actual depths of utilities must be done in the presence of a City Representative. It shall be the responsibility of the Contractor to establish the location of all underground utilities in proximity to the site that may be affected by the Contractor's work and shall maintain markings indicating the location of such facilities until the completion of all work.

Should the Contractor find any conflict between the proposed location and the utilities or other improvements he/she shall immediately notify the Engineer.

41. PLANNING THE WORK

The Contractor shall submit, in writing, a plan and schedule of his/her work. The Engineer must approve this plan and schedule. The Contractor shall give a minimum of three (3) working days written notice to the Engineer prior to commencing work. The plan shall cover but shall not be limited to the following points:

A. The Contractor shall verify the location and elevation of all other utilities, including the existing water main to be worked on, sufficiently in advance of approaching them with the

water main connections construction so that corrections in vertical and/or horizontal alignment may be accomplished if necessary.

B. The work shall be divided into sections in such a manner as to permit each section to be completed in the shortest time possible.

C. The Contractor shall give Tacoma Water two (2) weeks in advance written notice to schedule shutdown of the 12-inch PRV inlet and outlet.

If extreme weather conditions or other unforeseen circumstances are deemed by the Engineer or Construction Inspector to be unsuitable for proper installation of improvements in accordance with these provisions, then the work shall not start or shall be interrupted until conditions have improved sufficiently as to allow the work to progress without delay until completed. The Contractor shall not be responsible for those days. Contractor delays resulting from work required to be completed by City, such as shutdown, shall be considered by the Contractor in his/her schedule. Such a weather-related suspension of work by the Engineer shall not be the basis for a claim of delay by the Contractor or entitle the Contractor to compensation. The Engineer's decision to suspend work due to unsuitable weather conditions shall be conclusive on the issue.

42. ADDITIONAL INFORMATION

Additional phone numbers that may be used are as follows:

Tacoma Water Emergency: (253) 502-8344

James Southern, Tacoma Water Safety Manager: (253) 606-2684

Utilities Underground Location Center: (800) 424-5555

43. TRAFFIC CONTROL

Traffic shall be maintained on all streets at all times during construction. Access to all existing subdivisions, private residences, and drives shall also be kept open except when pipe is being laid across the access. Work shall be performed in accordance with applicable City, County, and Washington Department of Transportation guidelines. Traffic control shall include proper signing and flagging per WSDOT guidelines and as specified herein.

Traffic control shall also include all flag persons and traffic control devices such as, but not limited to, flashers, signs, barricades and vertical panels, plastic drums (steel drums will not be permitted) and cones necessary for the control and protection of vehicular and pedestrian traffic as specified by the WSDOT Manual on Uniform Traffic Control Devices. Any temporary traffic control items, devices, materials, and incidentals shall remain the property of the Contractor when no longer needed. The Contractor shall be responsible for periodically checking all construction signs and other traffic control devices. When it is discovered or reported that signs or other traffic control devices are missing, the Contractor shall immediately replace these at his/her own expense.

The Contractor shall fully cover with plywood any signs, existing, permanent or temporary, which

do not properly apply to the current traffic phasing and shall maintain the covering until the signs are applicable or are removed. In general, all traffic control devices shall be placed starting and proceeding in the direction of the flow of traffic and removed starting and proceeding in the direction opposite to the flow of traffic.

If traffic should be stopped due to construction operations and an emergency vehicle on an official emergency run arrives on the scene, the Contractor shall make provisions for the passage of that vehicle immediately.

44. SURVEYING AND PROJECT STAKEOUT

If required, the City will perform the initial land survey for the purpose of determining the boundaries of properties and rights of way, initial project stakeout and changes made to existing project site boundaries. The City's survey team will set controls for surveying the project by tying project to the established points of the state plane coordinate system.

The Contractor will coordinate with the City's Surveying Crews for initial stakeout and it will be the sole responsibility of the Contractor to maintain such points throughout the project.

45. MEASUREMENT AND PAYMENT

Payment for the various items in the Proposal, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, heavy equipment, staging, containment systems, supplies, and manufactured articles, and for all the labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the work all in accordance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).

Where these specifications do not specifically address payment for an aspect of the completion of the intended task, it shall be considered as incidental to the proposal items as listed. All work to be performed in accordance with the 2023 WSDOT Standard Specifications for Road, Bridge, and Municipal Construction.

Items of work to be completed or materials to be furnished or stated in the project specifications having no special bid item in the Proposal shall be considered incidental to the contract and no separate payment will be made.

1. MOBILIZATION, DEMOBILIZATION, CLEANUP
    a. Bid Item 1 includes mobilization of construction equipment; costs of preparatory work (e.g. obtaining insurance and bonds, etc.); preparation and submittal of the Stormwater Pollution Prevention Plan and Erosion Control Plan; obtaining and paying for all permits by other agencies as applicable; furnishing temporary construction utilities (temporary power, toilets, water, fences, etc.); costs of removal of construction equipment, restoration of surfaces within the job site, removal of all temporary facilities and equipment from the work area, turnover of the project to the Owner, and all other construction as required for the proper performance and completion of the work. Payment will be per lump sum.

2. TEMPORARY EROSION AND SEDIMENT CONTROLS
    a. Bid Item 2 includes installation of temporary facilities to prevent erosion, sediment, and other pollutants produced by project work activities from leaving the project site and to prevent deterioration of the project site due to construction activities. Work also includes removal of the temporary facilities once construction is complete, and the project has been turned over to the Owner. Payment will be per lump sum.
3. REMOVAL OF EXISTING ROOFING MATERIAL
    a. Bid Item 3 includes the removal of approximately 25,500 square feet of existing hot mop asphalt gravel roofing material. The roofing material shall be removed so as not to damage the existing reservoir roof, partially buried reservoir structure, or surrounding utilities. The work shall include storage, material handling, and loading. Payment will be per square foot of material removed.
4. REMOVAL AND SALVAGE OF EXISTING ACCESS HATCH
    a. Bid Item 4 includes unbolting, removal, and salvage of one (1) existing access hatch from the reservoir roof. Tacoma Water staff will disconnect hatch alarm system and uninstall the associated conduit prior to construction activities. Payment will be per each hatch removed and salvaged.
5. REMOVAL AND DISPOSAL OF EXISTING VENT HOODS
    a. Bid Item 5 includes the removal and disposal of two (2) existing vent hoods. The existing vent hood sleeve will remain and shall be protected in place. Tacoma Water staff will unlock the vent hoods so they can be removed. Payment will be per each vent hood removed and disposed of.
6. TRANSPORT AND DISPOSE ROOF MATERIAL
    a. Bid Item 6 includes identification of a recipient disposal or recycling facility, testing of the roof material (as required by the identified facility), transportation to and disposal of the material at the disposal/recycling facility, and documentation of proper disposal. It is anticipated that up to 270 tons of roof material will be recycled/disposed of. Payment will be per ton of material disposed or recycled.
7. PREPARATION AND INSTALLATION OF NEW ROOF COATING SYSTEM
    a. Bid Item 7 includes the preparation of the roof for and installation of the new roof coating system and associated appurtenances. It is anticipated that up to 28,000 square feet of reservoir roof area and associated vertical surfaces (e.g., outward faces of curbing for vent hoods and access hatch) will be coated. Payment will be per square foot of reservoir roof area.
8. NEW VENT HOODS
    a. Bid Item 8 includes installation of two new reservoir vent hoods with additional 24x24 aluminum woven wire mesh screening, FRP safety grating, and associated appurtenances. Vent hoods will be installed on the new concrete curbing. Payment will be per each vent hood installed.
9. NEW CONCRETE CURBS UNDER VENTS
    a. Bid Item 9 includes construction of new 12” high by 5” wide concrete curbing for the new reservoir vent hoods. Included in the work is any formwork, materials for concrete curing, reinforcement, joints within the curbing, sealants at connection to existing reservoir roof, concrete washout stations, and all other associated work for the proper construction and installation of the curbing. Payment will be per each square curb installed.
10. REINSTALL SALVAGED ACCESS HATCH
    a. Bid Item 10 includes reinstallation of one (1) salvaged access hatch using new stainless-steel hardware. Tacoma Water staff will reinstall the conduit associated with the hatch alarm system. Payment will be per hatch reinstalled.
11. STRUCTURAL CRACK REPAIR
    a. Bid Item 11 includes repairing any cracks in the roof of the reservoir after removing all existing roofing material, inspecting the roof, and roughening the concrete and prior to installing the new roof coat in accordance with the Contract Documents and under supervision of the Owner or Owner’s authorized representative. Payment for this item will be paid on a unit price basis as listed

in the bid schedule. The bid shall include all material, labor, equipment, and incidentals necessary to furnish and perform complete concrete crack repairs.

12. STRUCTURAL CONCRETE SPALLING REPAIR
    a. Bid Item 12 includes repairing any spalling in the roof of the reservoir after removing all existing roofing material, inspecting the roof, and roughening the concrete and prior to installing the new roof system in accordance with the Contract Documents and under supervision of the Owner or Owner's authorized representative. Payment for this item will be paid on a unit price basis as listed in the bid schedule. The bid shall include all material, labor, equipment, and incidentals necessary to furnish and perform a complete repair of spalled concrete.
13. FORCE ACCOUNT
    a. Tacoma Water has estimated the cost of the bid item for "Force Account" and has entered the amount in the bid proposal to become a part of the total bid by the Contractor. It is for the purpose of providing a common proposal for all bidders and for that purpose only. This item shall conform to Section 1-09.6 of the WSDOT Standard Specifications.

Technical Provisions

CITY OF TACOMA
TACOMA PUBLIC UTILITIES
TACOMA WATER

TECHNICAL PROVISIONS

Indian Hill 3.5MG Reservoir Re-Roof

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SECTION 02 40 00

DEMOLITION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Provide all demolition required to perform the work covered under this contract including without limitation:
   1. Remove existing construction shown to be removed.
   2. Remove and replace existing construction and/or finishes as required to provide access to perform other work included in this contract.
   3. Where utilities that are not shown pass through construction that must be removed and those utilities serve other areas, notify the Owner before disrupting service. If rerouting is required to maintain service, the Owner may issue a Change Order to accomplish the required work.
   4. Store and protect items intended for reuse.
   5. Assume ownership of debris and unwanted materials removed from the site and dispose of legally.
      a. Special requirements for waste management during deconstruction and construction operations.
         1) Protect the environment, both onsite and offsite, during deconstruction and construction operations.
         2) Prevent environmental pollution and damage.
         3) Maximize source reduction, reuse, and recycling of solid waste.
   6. Comply with all State permit requirements for demolition. Initial characterization of the roofing material has been conducted. See Appendix A for analytical results. Contractor shall conduct any additional testing required to properly dispose of or recycle the material.
   7. Remove and properly dispose of all loose items including rubbish, debris, etc.

1.02 NOISE AND DUST CONTROL

A. Perform work in a manner to cause least disturbance to neighbors and least damage to work to remain.

B. Maintain adequate means of safe, clear egress for Tacoma Water maintenance staff.

C. Unpaved areas where vehicles are operated shall be periodically wetted down, if necessary, to eliminate dust formation.

D. Employ all available techniques to limit and control dust produced by construction operations.

E. Employ all available techniques for construction noise abatement. Use remote, well-mufflered air compressors and newest noise suppressed pneumatic and electric tools.

1.03 QUALITY ASSURANCE

A. Maximize use of source reduction and recycling procedures.

1.04 PRECONSTRUCTION MEETING

A. After award of Contract and prior to the commencement of the Work, schedule and conduct meeting with Owner and Engineer to discuss the proposed Waste Management Plan for the roofing material and to develop mutual understanding relative to details of environmental protection.

1.05 SUBMITTALS

A. Information to be submitted in accordance with Owner Special Provisions.

B. Submit copies of all executed permits.

C. Solid Waste Management Plan: Not less than 5 days before the Pre-construction meeting, prepare and submit a Solid Waste Management Plan including, but not limited to, the following:
   1. List of the recycling facilities, reuse facilities, municipal solid waste landfills and other disposal area(s) to be used. Include:
      a. Name, location, and phone number.
      b. Copy of permit or license for each facility.
   2. Revise and resubmit Plan as required by Owner.
      a. Approval of Contractor's Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations.

D. Progress Documentation: Document solid waste disposal and diversion. Include the quantity by weight of waste generated; waste diverted through sale, reuse, or recycling; and waste disposed by landfill. Identify landfills, recycling centers, waste processors, and other organizations that process or receive the solid waste.
   1. Document on a form as approved by Owner.
   2. With each Application for Payment, submit updated documentation for solid waste disposal and diversion.
   3. With each Application for Payment, submit manifests, weight tickets, receipts, and invoices specifically identifying the Project and waste material.

E. Materials or wastes shall only be recycled, reused, or disposed of at locations approved of by Owner. Submit permission to reuse, recycle, or dispose of material from reuse, recycling, or disposal site owner along with any other information needed by Owner to evaluate the acceptability of the proposed reuse, recycling, or disposal site prior to removing of any material.

F. All information pertinent to the characterization of the material or waste shall be disclosed to Owner and the reuse, recycling, or disposal facility. Submit copies of any profile forms and/or correspondence between the Contractor and the reuse, recycling, or disposal facility.

G. Notices of non-compliance or notices of violation issued by a Federal, State, or local regulatory agency issued to the Contractor in relation to any work performed under this contract. The Contractor shall immediately provide copies of such notices to Owner. The Contractor shall also furnish all relevant documents regarding the incident and any information requested by Owner and shall coordinate its response to the notice with Owner prior to submission to the notifying authority. The Contractor shall also furnish a copy to Owner of all documents submitted to the regulatory authority, including the final reply to the notice, and all other materials, until the matter is resolved.

1.06 PERMITS

A. Contractor shall fill out, submit, and pay for the following permits:
   1. Washington State Department of Ecology
      a. Construction Stormwater General Permit

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 SOLID WASTE MANAGEMENT

A. All waste material shall be disposed of at an appropriate facility.

B. Develop and implement a waste management program in accordance with ASTM E1609 and as specified herein.

C. Collection: Implement a recycling/reuse program that includes separate collection of waste materials as appropriate to the project waste and to the available recycling and reuse programs in the project area.

D. Recycling/Reuse: Maximize recycling and reuse of materials.
   1. Recycling/Reuse off project site: For more information, refer to Pierce County's garbage and recycling website for potential recycling/reuse facilities. https://www.piercecountywa.gov/1507/Recycle-Reduce-Waste

E. Handling:
   1. Clean materials that are contaminated prior to placing in collection containers. Deliver materials in accordance with recycling, reuse, or disposal facility requirements (e.g., free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to recycling process).
   2. Arrange for collection by or delivery to the appropriate recycling, reuse, or disposal facility.
   3. Hazardous Waste and Hazardous Materials: Handle in accordance with applicable regulations.
   4. Removed roofing material may be stockpiled, stored in a roll-off dumpster, implement other storage method, or direct loaded based on Contractor's selected means and methods.
   5. Removed material shall not be stockpiled on the reservoir roof.
   6. Stockpiled waste material must be protected (lined, berm enclosed, and covered with plastic sheeting in a manner that prevents surface water runoff and run-on) at a designated area on site coordinated with the Owner. Stockpiles shall be identified to facilitate sampling and analysis profile operations (as required by disposal/recycling facility) and loading for off-haul to the appropriate offsite recycling, reuse, or disposal facility.

3.02 REMOVAL OF CONSTRUCTION IN AREAS TO RECEIVE NEW WORK

A. Protect mechanical and electrical work that serves other areas. If necessary, relocate concealed mechanical and electrical work that is required to preserve service to other areas.

B. Remove structural work designated for removal. Take precautions not to damage structural work intended to remain.

C. If structural elements are encountered that were not shown, protect them from damage and report their presence to the Owner.

3.03 REMOVAL OF EXISTING CONSTRUCTION TO PROVIDE ACCESS TO PERFORM WORK

A. Provide careful selective cutting and removal of existing construction where required to permit installation of proposed improvements.

B. Treat existing mechanical, electrical, or structural work as described in other parts of this Section.

C. Replace and/or patch removed construction and finishes in accordance with other parts of this Section.

D. Standards of material and workmanship shall be in accordance with other portions of this Specification, or if not covered, then in accordance with current practice for this case of work. Salvaged materials may be used for replacement if in good condition.

3.04 PROTECTION OF WORK TO REMAIN

A. Protect all work to remain. Repair damage with materials, workmanship, and finishes matching existing work when new.

3.05 REMOVE UNWANTED FIXED EQUIPMENT

A. If items are designated on the Drawings to be salvaged, remove them carefully without causing damage.

B. Store and protect items to be reused until time of need on jobsite.

3.06 IF HAZARDOUS MATERIALS ARE ENCOUNTERED

A. If hazardous materials are discovered, notify the Owner and comply with all applicable laws.

3.07 REMOVAL AND DISPOSAL OF MATERIAL

A. Technique and equipment proposed for use in removing the existing roofing material shall be submitted to the Owner for review. Removal technique shall not damage the existing reservoir, reservoir roof, or underground utilities, and proposed equipment shall not exceed loads described on the Drawings. If damage of the reservoir or utilities occurs, the Contractor shall repair the damage at no cost to the Owner.

B. Store debris in suitable covered containers or stockpiles located where directed by the Owner and remove from site when full. Burning on the site is not permitted.

C. Removed material (other than material to be reused) shall become the property of the Contractor who shall remove it from the site and dispose of it in a legal manner.

END OF SECTION

Appendix A

Sample Testing Results

Table 1 - Summary of Laboratory Analytical Results
Indian Hill Reservoir
Tacoma Water

Kennedy Jenks

Analyte Group	Analyte	CAS Number	Units	MTCA Method A or Minimum Method B CUL	Method	Sample: S-2 20240119 (South) Lab ID: 308130-02
VOCs	1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	38	Method B C	< 0.016
VOCs	1,1,1-Trichloroethane	71-55-6	mg/kg	2	Method A	< 0.016
VOCs	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	5	Method B C	< 0.016
VOCs	1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	mg/kg	2400000	Method B NC	< 0.032
VOCs	1,1,2-Trichloroethane	79-00-5	mg/kg	18	Method B C	< 0.016
VOCs	1,1-Dichloroethane	75-34-3	mg/kg	180	Method B C	< 0.016
VOCs	1,1-Dichloroethene	75-35-4	mg/kg	4000	Method B NC	< 0.016
VOCs	1,1-Dichloropropene	563-58-6	mg/kg	N/A	N/A	< 0.016
VOCs	1,2,3-Trichlorobenzene	87-61-6	mg/kg	64	Method B NC	< 0.0801
VOCs	1,2,3-Trichloropropane	96-18-4	mg/kg	0.0063	Method B C	< 0.032
VOCs	1,2,4-Trichlorobenzene	120-82-1	mg/kg	34	Method B C	< 0.0801
VOCs	1,2,4-Trimethylbenzene	95-63-6	mg/kg	800	Method B NC	< 0.016
VOCs	1,2-Dibromo-3-Chloropropane	71932	mg/kg	N/A	N/A	< 0.0801
VOCs	1,2-Dibromoethane	106-93-4	mg/kg	0.005	Method A	< 0.016
VOCs	1,2-Dichlorobenzene	95-50-1	mg/kg	7200	Method B NC	< 0.016
VOCs	1,2-Dichloroethane	107-06-2	mg/kg	11	Method B C	< 0.016
VOCs	1,2-Dichloropropane	78-87-5	mg/kg	27	Method B C	< 0.016
VOCs	1,3,5-Trimethylbenzene	108-67-8	mg/kg	800	Method B NC	< 0.016
VOCs	1,3-Dichlorobenzene	541-73-1	mg/kg	--	--	< 0.016
VOCs	1,3-Dichloropropane	142-28-9	mg/kg	1600	Method B NC	< 0.016
VOCs	1,4-Dichlorobenzene	106-46-7	mg/kg	190	Method B C	< 0.016
VOCs	2,2-Dichloropropane	594-20-7	mg/kg	N/A	N/A	< 0.016
VOCs	2-Butanone	78-93-3	mg/kg	48000	Method B NC	< 0.0801
VOCs	2-Chloroethyl vinyl ether	110-75-8	mg/kg	N/A	N/A	< 0.0801
VOCs	2-Chlorotoluene	95-49-8	mg/kg	1600	Method B NC	< 0.016
VOCs	2-Hexanone	591-78-6	mg/kg	400	Method B NC	< 0.0801
VOCs	2-Pentanone	107-87-9	mg/kg	N/A	N/A	< 0.0801
VOCs	4-Chlorotoluene	106-43-4	mg/kg	1600	Method B NC	< 0.016
VOCs	4-Methyl-2-Pentanone	108-10-1	mg/kg	6400	Method B NC	< 0.0801
VOCs	4-Tsopropyl Toluene	99-87-6	mg/kg	N/A	N/A	< 0.016
VOCs	Acetone	67-64-1	mg/kg	72000	Method B NC	< 0.16
VOCs	Acrolein	107-02-8	mg/kg	40	Method B NC	< 0.0801
VOCs	Acrylonitrile	107-13-1	mg/kg	1.9	Method B C	< 0.0801
VOCs	Benzene	71-43-2	mg/kg	0.03	Method A	< 0.016
VOCs	Bromobenzene	108-86-1	mg/kg	640	Method B NC	< 0.016
VOCs	Bromochloromethane	74-97-5	mg/kg	--	--	< 0.016
VOCs	Bromodichloromethane	75-27-4	mg/kg	16	Method B C	< 0.016
VOCs	Bromoform	75-25-2	mg/kg	130	Method B C	< 0.016
VOCs	Bromomethane	74-83-9	mg/kg	110	Method B NC	< 0.032
VOCs	Carbon Disulfide	75-15-0	mg/kg	8000	Method B NC	< 0.016
VOCs	Carbon tetrachloride	56-23-5	mg/kg	14	Method B C	< 0.016
VOCs	Chlorobenzene	108-90-7	mg/kg	1600	Method B NC	< 0.016
VOCs	Chloroethane	75-00-3	mg/kg	--	--	< 0.032
VOCs	Chloroform	67-66-3	mg/kg	32	Method B C	< 0.016
VOCs	Chloromethane	74-87-3	mg/kg	--	--	< 0.016
VOCs	cis-1,2-Dichloroethene	156-59-2	mg/kg	160	Method B NC	< 0.016
VOCs	cis-1,3-Dichloropropene	10061-01-5	mg/kg	N/A	N/A	< 0.016
VOCs	Dibromochloromethane	124-48-1	mg/kg	12	Method B C	< 0.016
VOCs	Dibromomethane	74-95-3	mg/kg	800	Method B NC	< 0.016
VOCs	Dichlorodifluoromethane	75-71-8	mg/kg	16000	Method B NC	< 0.016
VOCs	Ethylbenzene	100-41-4	mg/kg	6	Method A	< 0.016
VOCs	Hexachloro-1,3-Butadiene	87-68-3	mg/kg	13	Method B C	< 0.0801
VOCs	m,p-Xylene	179601-23-1	mg/kg	N/A	N/A	< 0.032
VOCs	Methyl tert-butyl Ether	1634-04-4	mg/kg	0.1	Method A	< 0.016
VOCs	Methylene Chloride	64164	mg/kg	N/A	N/A	< 0.0801
VOCs	Naphthalene	91-20-3	mg/kg	5	Method A	< 0.0801

Table 1 - Summary of Laboratory Analytical Results
Indian Hill Reservoir
Tacoma Water

Kennedy Jenks

Analyte Group	Analyte	CAS Number	Units	MTCA Method A or Minimum Method B CUL	Method	Sample: S-2 20240119 (South) Lab ID: 308130-02
VOCs	n-Butylbenzene	104-51-8	mg/kg	4000	Method B NC	< 0.016
VOCs	n-Propylbenzene	103-65-1	mg/kg	8000	Method B NC	< 0.016
VOCs	o-Xylene	95-47-6	mg/kg	16000	Method B NC	< 0.016
VOCs	s-Butylbenzene	135-98-8	mg/kg	8000	Method B NC	< 0.016
VOCs	Styrene	100-42-5	mg/kg	16000	Method B NC	< 0.016
VOCs	t-Butylbenzene	72477	mg/kg	N/A	N/A	< 0.016
VOCs	Tetrachloroethene	127-18-4	mg/kg	0.05	Method A	< 0.016
VOCs	Todomethane	74-88-4	mg/kg	N/A	N/A	< 0.016
VOCs	Toluene	108-88-3	mg/kg	7	Method A	**0.00537 J**
VOCs	trans-1,2-Dichloroethene	156-60-5	mg/kg	1600	Method B NC	< 0.016
VOCs	trans-1,3-Dichloropropene	10061-02-6	mg/kg	N/A	N/A	< 0.016
VOCs	trans-1,4-Dichloro 2-Butene	110-57-6	mg/kg	--	--	< 0.0801
VOCs	Trichloroethene	65386	mg/kg	N/A	N/A	< 0.016
VOCs	Trichlorofluoromethane	75-69-4	mg/kg	24000	Method B NC	< 0.032
VOCs	Tsopropyl Benzene	98-82-8	mg/kg	8000	Method B NC	< 0.016
VOCs	Vinyl Acetate	108-05-4	mg/kg	80000	Method B NC	< 0.0801
VOCs	Vinyl Chloride	63923	mg/kg	N/A	N/A	< 0.016
VOCs	Xylenes, total	1330-20-7	mg/kg	9	Method A	< 0.032
SVOCs	1-Methylnaphthalene	90-12-0	mg/kg	34	Method B C	< 0.0749
SVOCs	2-Chloronaphthalene	91-58-7	mg/kg	6400	Method B NC	< 0.0749
SVOCs	Acenaphthene	83-32-9	mg/kg	4800	Method B NC	< 0.0749
SVOCs	Acenaphthylene	208-96-8	mg/kg	N/A	N/A	< 0.0749
SVOCs	Anthracene	120-12-7	mg/kg	24000	Method B NC	**0.0635 J**
SVOCs	Benzo(a)anthracene	56-55-3	mg/kg	--	--	**0.0476 J**
SVOCs	Benzo(a)pyrene	50-32-8	mg/kg	0.1	Method A	**1.27**
SVOCs	Benzo(b)fluoranthene	205-99-2	mg/kg	--	--	< 0.0749
SVOCs	Benzo(g,h,i)perylene	191-24-2	mg/kg	N/A	N/A	**0.23**
SVOCs	Benzo(j)fluoranthene	205-82-3	mg/kg	N/A	N/A	< 0.0749
SVOCs	Benzo(k)fluoranthene	207-08-9	mg/kg	--	--	**0.649**
SVOCs	Benzofluoranthenes, Total		mg/kg	N/A	N/A	**0.68**
SVOCs	Carbazole	86-74-8	mg/kg	N/A	N/A	< 0.0749
SVOCs	Chrysene	218-01-9	mg/kg	--	--	**1.2**
SVOCs	Dibenzo(a,h)anthracene	53-70-3	mg/kg	--	--	**0.129**
SVOCs	Dibenzofuran	132-64-9	mg/kg	80	Method B NC	< 0.0749
SVOCs	Fluoranthene	206-44-0	mg/kg	3200	Method B NC	**0.0166 J**
SVOCs	Fluorene	86-73-7	mg/kg	3200	Method B NC	< 0.0749
SVOCs	Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	--	--	**0.0428 J**
SVOCs	Naphthalene (EPA 8260 Result)	91-20-3	mg/kg	5	Method A	< 0.0801
SVOCs	Phenanthrene	67580	mg/kg	N/A	N/A	**0.0506 J**
SVOCs	Pyrene	129-00-0	mg/kg	2400	Method B NC	**0.118**
SVOCs	Total cPAHs (HitsOnly)	50-32-8	mg/kg	0.1	Method A	**1.369**
SVOCs	Total cPAHs (HalfDL_WA)	50-32-8	mg/kg	0.1	Method A	**1.373**
SVOCs	Total Naphthalene (HitsOnly)	91-20-3	mg/kg	5	Method A	< 0
SVOCs	Total Naphthalene (HalfDL_WA)	91-20-3	mg/kg	5	Method A	< 0.03745
Metals	Arsenic	7440-38-2	mg/kg	0.67	Method B C	**1.06 J**
Metals	Barium	7440-39-3	mg/kg	16000	Method B NC	**6.23**
Metals	Cadmium	7440-43-9	mg/kg	--	--	< 0.208
Metals	Chromium	7440-47-3	mg/kg	--	--	**2.22**
Metals	Lead	7439-92-1	mg/kg	250	Method A	**1.22 J**
Metals	Selenium	7782-49-2	mg/kg	400	Method B NC	< 5.21
Metals	Silver	7440-22-4	mg/kg	400	Method B NC	< 0.313
Metals	Mercury	7439-97-6	mg/kg	N/A	N/A	< 0.0252
Metals	Copper	7440-50-8	mg/kg	3200	Method B NC	**3.92**
Metals	Nickel	7440-02-0	mg/kg	1600	Method B NC	**8.03**
Metals	Zinc	7440-66-6	mg/kg	24000	Method B NC	**13.8**

Table 1 - Summary of Laboratory Analytical Results
Indian Hill Reservoir
Tacoma Water

Table Notes

100
10

Detected concentrations above the cleanup level are shaded blue and bolded.
Detected concentrations at or above the method reporting limit are shown in bold.

Abbreviations and Symbols

"--" and "N/A" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"J" indicates an estimated concentration based on being less than the laboratory reporting limit.
mg/kg = milligrams per kilogram
Total cPAHs = Possible Total Carcinogenic Polycyclic Aromatic hydrocarbons (cPAHs) are based on the relative toxicity of each cPAH to benzo(a)pyrene and were calculated by multiplying the individual cPAH concentrations by a toxicity equivalency factor (TEF) and summing the adjusted concentrations. Non-detects were included as noted.
Total Naphthalenes = Total Naphthalenes concentrations were calculated by summing 1-Methylnaphthalene and Naphthalene concentrations. Non-detects were included as noted.
(HitsOnly) = If an individual chemical was not detected, it was not included in the calculation.
(HalfDL_WA) = If an individual chemical was not detected, a value of one half the method reporting limit was used as the concentration in the calculation, except when all chemicals used in the calculation were not detected then one half the lowest method reporting limit was used as the total concentration.

Cleanup Levels (CUL)

Cleanup level values based on Model Toxics Control Act (MTCA) Method A values for unrestricted land use (Method A) based on Washington State Administrative Code (WAC) 173-340-900 Table 740-1. Where MTCA Method A values are not available, the lowest of MTCA Method B values (Cancer (C) or Non Cancer (NC)) from Cleanup Levels and Risk Calculation (CLARC) tables have been used (January 2023 revision).

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Spectra Labs - Tacoma received samples from City of Tacoma-Water on Friday, January 19, 2024 at 9:53 am. Unless otherwise noted, all samples were received in good condition and were tested in accordance with the laboratory's quality control procedures. A summary of the samples received are outlined below.

Sample No.	Description	Location	Sampled
308130-01	Indian Hill Resevoir Re-Roof	S-1 20240119 (North)	01/19/2024 9:06
308130-02	Indian Hill Resevoir Re-Roof	S-2 20240119 (South)	01/19/2024 9:16

This report package contains laboratory sample results and any attachments listed below. If you have any questions please call (253) 272-4850 or email us at office@spectra-lab.com.

Attachments

01) Analytical Report: Analytical Resources, LLC.

Approved By 

Randa Ross
Project Manager

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Analytical Report

City of Tacoma-Water
3628 S 35th St
Tacoma WA 98409

Project Indian Hill Resevoir Re-Roof
PO Number PD CC
Date Received 01/19/2024

Client ID: S-1 20240119 (North) **Lab No: 308130-01** **Sample Date: 01/19/24 09:06**

Analyte	Method	Result	Units	PQL	Qualifiers	Analysis Date	Analyst
Copper	EPA 6010D	5.61	mg/kg	0.309	---	1/25/2024	ARL
Nickel	EPA 6010D	11.2	mg/kg	1.03	---	1/25/2024	ARL
Zinc	EPA 6010D	24.5	mg/kg	5.11	D	2/19/2024	ARL
Arsenic	EPA 6010D	0.711	mg/kg	5.15	J	1/25/2024	ARL
Barium	EPA 6010D	11.7	mg/kg	0.618	---	1/25/2024	ARL
Cadmium	EPA 6010D	ND	mg/kg	0.206	U	1/25/2024	ARL
Chromium	EPA 6010D	3.22	mg/kg	0.927	---	1/25/2024	ARL
Lead	EPA 6010D	1.08	mg/kg	2.06	J	1/25/2024	ARL
Selenium	EPA 6010D	ND	mg/kg	5.15	U	1/25/2024	ARL
Silver	EPA 6010D	ND	mg/kg	0.309	U	1/25/2024	ARL
Mercury	EPA 7471B	ND	mg/kg	0.0257	U	1/25/2024	ARL
PAH by SIM	EPA 8270E SIM	See Attached	µg/kg	---	---	1/31/2024	ARL
VOC	EPA 8260D	See Attached	µg/kg	---	---	1/23/2024	ARL

Client ID: S-2 20240119 (South) **Lab No: 308130-02** **Sample Date: 01/19/24 09:16**

Analyte	Method	Result	Units	PQL	Qualifiers	Analysis Date	Analyst
Copper	EPA 6010D	3.92	mg/kg	0.313	---	1/25/2024	ARL
Nickel	EPA 6010D	8.03	mg/kg	1.04	---	1/25/2024	ARL
Zinc	EPA 6010D	13.8	mg/kg	2.13	---	2/14/2024	ARL
Arsenic	EPA 6010D	1.06	mg/kg	5.21	J	1/25/2024	ARL
Barium	EPA 6010D	6.23	mg/kg	0.625	---	1/25/2024	ARL
Cadmium	EPA 6010D	ND	mg/kg	0.208	U	1/25/2024	ARL
Chromium	EPA 6010D	2.22	mg/kg	0.938	---	1/25/2024	ARL
Lead	EPA 6010D	1.22	mg/kg	2.08	J	1/25/2024	ARL
Selenium	EPA 6010D	ND	mg/kg	5.21	U	1/25/2024	ARL
Silver	EPA 6010D	ND	mg/kg	0.313	U	1/25/2024	ARL
Mercury	EPA 7471B	ND	mg/kg	0.0252	U	1/25/2024	ARL
PAH by SIM	EPA 8270E SIM	See Attached	µg/kg	---	---	1/31/2024	ARL
VOC	EPA 8260D	See Attached	µg/kg	---	---	1/23/2024	ARL

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Analytical Report

City of Tacoma-Water
3628 S 35th St
Tacoma WA 98409

Project Indian Hill Resevoir Re-Roof
PO Number PD CC
Date Received 01/19/2024

ARL = Analyzed by Analytical Resources. See complete report provided.

D = The reported value is from a dilution

J = Estimated concentration value detected below the reporting limit.

U = This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).

Lab Qualifiers Comments:

SPECTRA Laboratories

2221 Ross Way, Tacoma, WA 98421
(253) 272-4850 Fax (253) 572-9838
www.spectra-lab.com info@spectra-lab.com

SPECIAL INSTRUCTIONS/COMMENTS:

Run TCLP if above threshhold.

CHAIN OF CUSTODY

SPECTRA PROJECT # 308150

Return Samples: Y N Page _____ of _____ STANDARD [ ] [redacted]

CLIENT: City of Tacoma - Michael Peloquin ADDRESS: 3628 South 35th St, Tacoma WA 98409 ADDRESS CHANGE [ ]

PROJECT: Indian Hill Reservoir Re-roof

CONTACT: Michel Peloquin

SAMPLED BY: Michael McIntosh

PHONE (253) - 377-1005 FAX:

e-MAIL: mpeloqui@cityoftacoma.org Prefer FAX [ ] or e-MAIL [ ]

PURCHASE ORDER #

	SAMPLE ID	DATE SAMPLED	TIME SAMPLED	MATRIX	NUMBER OF CONTAINERS	HYDROCARBONS: NWTPH-HCID	BTEX	[redacted]	NWTPH-G	NWTPH-Dx	1664 SGT-HEM (TPH)	1664 HEM (FOG)	ORGANICS: 8260/624 VOA	8260 CHLOR SOLVENTS	8270-625 SEMI VOA	~~8270~~ PAH/PNA 8270-SIM	8082/608 PCB	METALS: TOTAL METALS RCRA 8	TOTAL METALS (SPECIFY)		TCLP METALS RCRA 8	TCLP METALS (SPECIFY)	OTHER: PH 9040/9045	TX/TOX/EOX	TURBIDITY	FLASH POINT	BOD	SOLIDS (SPECIFY)						
1	S-1-20240119 (north)	1/19/2024	9:06am	soil	6								x			x		x															
2	S-2-20240119 (south)	1/19/2024	9:18am	soil	6								x			x		x															
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	

LAB USE ONLY

	SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME
RELINQUISHED BY	[signature]	Michael McIntosh	Kennedy Jenks	1/19/24	9:52am
RECEIVED BY	[signature]	Chris Wilder	Spectra	1/19/24	9:53
RELINQUISHED BY					
RECEIVED BY					

Payment Terms: Net 30 days. Past due accounts subject to 1 1/2% per month interest. Customer agrees to pay all costs of collection including reasonable attorney's fees and all other costs of collection regardless of whether suit is filed in Pierce Co., WA venue. *Spectra Laboratories, LLC*

Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

21 February 2024

Randa Ross
Spectra Laboratories
2221 Ross Way
Tacoma, WA 98421

RE: General Analyses (308130)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
24A0456	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Randa Ross

Randa Ross For Phillip Bates, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006-012

24A0456

SPECTRA Laboratories

2221 Ross Way, Tacoma, WA 98421
(253) 272-4850 Fax (253) 572-9838
www.spectra-lab.com info@spectra-lab.com

SPECIAL INSTRUCTIONS/COMMENTS:

Run TCLP if above threshhold.

CHAIN OF CUSTODY

SPECTRA PROJECT # 308150

Return Samples: Y N Page _____ of _____ STANDARD ☐ [redacted]

CLIENT: City of Tacoma - Michael Peloquin ADDRESS: 3628 South 35th St, Tacoma WA 98409 ADDRESS CHANGE ☐

PROJECT: Indian Hill Reservoir Re-roof

CONTACT: Michel Peloquin

SAMPLED BY: Michael McIntosh

PHONE (253) - 377-1005 FAX:

e-MAIL: m.peloquin@cityoftacoma.org Prefer FAX ☐ or e-MAIL ☐

PURCHASE ORDER #

	SAMPLE ID	DATE SAMPLED	TIME SAMPLED	MATRIX	NUMBER OF CONTAINERS	HYDROCARBONS: NWTPH-HCID	BTEX	[redacted]	NWTPH-G	NWTPH-Dx	1664 SGT-HEM (TPH)	1664 HEM (FOG)	ORGANICS: 8260/~~624~~ VOA full list	8260 CHLOR SOLVENTS	8270-625 SEMI VOA	~~8270~~ PAH/PNA 8270-SIM	8082/608 PCB	METALS: TOTAL METALS RCRA 8 6010 7471	TOTAL METALS (SPECIFY)	TCLP METALS RCRA 8	TCLP METALS (SPECIFY)	OTHER: PH 9040/9045	TX/TOX/EOX	TURBIDITY	FLASH POINT	BOD	SOLIDS (SPECIFY)
1	S-1-20240119 (North)	1/19/2024	9:06am	soil	6								X			X		X									
2	S-2-20240119 (South)	1/19/2024	9:16am	soil	6								X			X		X									
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											

LAB USE ONLY	SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME
RELINQUISHED BY	Michael McIntosh	Michael McIntosh	Kennedy Jenks	1/19/24	9:58am
RECEIVED BY	Chris Wilder	Chris Wilder	Spectra	1/19/24	9:53
RELINQUISHED BY	Chris Jenkins	Chris Jenkins	Spectra	1/19/24	11:35
RECEIVED BY	Phillip Bates	Phillip Bates	AR	1/19/24	11:35

Payment Terms: Net 30 days. Past due accounts subject to 1 1/2% per month interest. Customer agrees to pay all costs of collection including reasonable attorney's fees and all other costs of collection regardless of whether suit is filed in Pierce Co., WA venue. *Spectra Laboratories, LLC*

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
308130-01	24A0456-01	Solid	19-Jan-2024 09:06	19-Jan-2024 11:35
308130-02	24A0456-02	Solid	19-Jan-2024 09:16	19-Jan-2024 11:35

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Work Order Case Narrative

Client: Spectra Laboratories
Project: General Analyses
Work Order: 24A0456

Sample receipt

Samples as listed on the preceding page were received 19-Jan-2024 11:35 under ARI work order 24A0456. For details regarding sample receipt, please refer to the Cooler Receipt Form.

There were no analytical complications noted.

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Spectra Tucana

COC No(s): _____ NA

Assigned ARI Job No: 24A0456

Project Name: 308130

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 11:35 — 5.5

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 500970B

Cooler Accepted by: PIB Date: 1/19/24 Time: 1035

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
How were bottles sealed in plastic bags?	Individually	Grouped	Not
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: KFC Date: 012324 Time: 0833 Labels checked by: KFC

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-01

24A0456-01 (Solid)

Volatile Organic Compounds

Method: EPA 8260D MED — Sampled: 01/19/2024 09:06

Instrument: NT5 Analyst: PB — Analyzed: 01/23/2024 14:12

Sample Preparation: Preparation Method: No Prep - Volatiles — Extract ID: 24A0456-01 D

Preparation Batch: BMA0667 — Sample Size: 23.14 g (wet) — Dry Weight:22.23 g

Prepared: 01/23/2024 — Final Volume: 5 g — % Solids: 96.06

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Chloromethane	74-87-3	50	5.04	13.3	ND	ug/kg	U
Vinyl Chloride	75-01-4	50	4.47	13.3	ND	ug/kg	U
Bromomethane	74-83-9	50	15.9	26.6	ND	ug/kg	U
Chloroethane	75-00-3	50	16.5	26.6	ND	ug/kg	U
Trichlorofluoromethane	75-69-4	50	13.0	26.6	ND	ug/kg	U
Acrolein	107-02-8	50	23.3	66.5	ND	ug/kg	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	50	11.3	26.6	ND	ug/kg	U
Acetone	67-64-1	50	84.4	133	ND	ug/kg	U
1,1-Dichloroethene	75-35-4	50	4.93	13.3	ND	ug/kg	U
Iodomethane	74-88-4	50	12.0	13.3	ND	ug/kg	U
Methylene Chloride	75-09-2	50	58.0	66.5	ND	ug/kg	U
Acrylonitrile	107-13-1	50	57.5	66.5	ND	ug/kg	U
Carbon Disulfide	75-15-0	50	4.40	13.3	ND	ug/kg	U
trans-1,2-Dichloroethene	156-60-5	50	6.98	13.3	ND	ug/kg	U
Vinyl Acetate	108-05-4	50	43.3	66.5	ND	ug/kg	U
1,1-Dichloroethane	75-34-3	50	3.76	13.3	ND	ug/kg	U
2-Butanone	78-93-3	50	32.5	66.5	ND	ug/kg	U
2,2-Dichloropropane	594-20-7	50	4.08	13.3	ND	ug/kg	U
cis-1,2-Dichloroethene	156-59-2	50	3.42	13.3	ND	ug/kg	U
Chloroform	67-66-3	50	3.83	13.3	ND	ug/kg	U
Bromochloromethane	74-97-5	50	5.25	13.3	ND	ug/kg	U
1,1,1-Trichloroethane	71-55-6	50	7.95	13.3	ND	ug/kg	U
1,1-Dichloropropene	563-58-6	50	3.75	13.3	ND	ug/kg	U
Carbon tetrachloride	56-23-5	50	4.15	13.3	ND	ug/kg	U
1,2-Dichloroethane	107-06-2	50	3.11	13.3	ND	ug/kg	U
Benzene	71-43-2	50	2.19	13.3	ND	ug/kg	U
Trichloroethene	79-01-6	50	3.39	13.3	ND	ug/kg	U
1,2-Dichloropropane	78-87-5	50	4.41	13.3	ND	ug/kg	U
Bromodichloromethane	75-27-4	50	3.42	13.3	ND	ug/kg	U
Dibromomethane	74-95-3	50	4.73	13.3	ND	ug/kg	U
2-Chloroethyl vinyl ether	110-75-8	50	40.1	66.5	ND	ug/kg	U
4-Methyl-2-Pentanone	108-10-1	50	18.2	66.5	ND	ug/kg	U

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-01

24A0456-01 (Solid)

Volatile Organic Compounds

Method: EPA 8260D MED — Sampled: 01/19/2024 09:06

Instrument: NT5 Analyst: PB — Analyzed: 01/23/2024 14:12

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
cis-1,3-Dichloropropene	10061-01-5	50	3.48	13.3	ND	ug/kg	U
Toluene	108-88-3	50	3.28	13.3	ND	ug/kg	U
trans-1,3-Dichloropropene	10061-02-6	50	5.45	13.3	ND	ug/kg	U
2-Hexanone	591-78-6	50	16.9	66.5	ND	ug/kg	U
1,1,2-Trichloroethane	79-00-5	50	3.56	13.3	ND	ug/kg	U
1,3-Dichloropropane	142-28-9	50	3.11	13.3	ND	ug/kg	U
Tetrachloroethene	127-18-4	50	2.63	13.3	ND	ug/kg	U
Dibromochloromethane	124-48-1	50	3.55	13.3	ND	ug/kg	U
1,2-Dibromoethane	106-93-4	50	4.10	13.3	ND	ug/kg	U
Chlorobenzene	108-90-7	50	2.75	13.3	ND	ug/kg	U
Ethylbenzene	100-41-4	50	3.02	13.3	ND	ug/kg	U
1,1,1,2-Tetrachloroethane	630-20-6	50	4.71	13.3	ND	ug/kg	U
m,p-Xylene	179601-23-1	50	6.57	26.6	ND	ug/kg	U
o-Xylene	95-47-6	50	3.18	13.3	ND	ug/kg	U
Xylenes, total	1330-20-7	50	9.27	26.6	ND	ug/kg	U
Styrene	100-42-5	50	3.27	13.3	ND	ug/kg	U
Bromoform	75-25-2	50	6.14	13.3	ND	ug/kg	U
1,1,2,2-Tetrachloroethane	79-34-5	50	3.64	13.3	ND	ug/kg	U
1,2,3-Trichloropropane	96-18-4	50	19.9	26.6	ND	ug/kg	U
trans-1,4-Dichloro 2-Butene	110-57-6	50	36.6	66.5	ND	ug/kg	U
n-Propylbenzene	103-65-1	50	3.14	13.3	ND	ug/kg	U
Bromobenzene	108-86-1	50	3.28	13.3	ND	ug/kg	U
Isopropyl Benzene	98-82-8	50	3.48	13.3	ND	ug/kg	U
2-Chlorotoluene	95-49-8	50	2.87	13.3	ND	ug/kg	U
4-Chlorotoluene	106-43-4	50	3.88	13.3	ND	ug/kg	U
t-Butylbenzene	98-06-6	50	3.34	13.3	ND	ug/kg	U
1,3,5-Trimethylbenzene	108-67-8	50	3.36	13.3	ND	ug/kg	U
1,2,4-Trimethylbenzene	95-63-6	50	3.52	13.3	ND	ug/kg	U
s-Butylbenzene	135-98-8	50	3.20	13.3	ND	ug/kg	U
4-Isopropyl Toluene	99-87-6	50	3.86	13.3	ND	ug/kg	U
1,3-Dichlorobenzene	541-73-1	50	3.24	13.3	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	50	5.73	13.3	ND	ug/kg	U
n-Butylbenzene	104-51-8	50	3.72	13.3	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	50	8.68	13.3	ND	ug/kg	U
1,2-Dibromo-3-Chloropropane	96-12-8	50	31.4	66.5	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	50	24.2	66.5	ND	ug/kg	U
Hexachloro-1,3-Butadiene	87-68-3	50	55.5	66.5	ND	ug/kg	U
Naphthalene	91-20-3	50	32.8	66.5	ND	ug/kg	U

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-01

24A0456-01 (Solid)

Volatile Organic Compounds

Method: EPA 8260D MED — Sampled: 01/19/2024 09:06

Instrument: NT5 Analyst: PB — Analyzed: 01/23/2024 14:12

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
1,2,3-Trichlorobenzene	87-61-6	50	30.9	66.5	ND	ug/kg	U
Dichlorodifluoromethane	75-71-8	50	5.36	13.3	ND	ug/kg	U
Methyl tert-butyl Ether	1634-04-4	50	3.38	13.3	ND	ug/kg	U
2-Pentanone	107-87-9	50	28.6	66.5	ND	ug/kg	U
Surrogate: 1,2-Dichloroethane-d4				*80-124 %*	*129*	*%*	Q
Surrogate: Toluene-d8				*80-120 %*	*106*	*%*	
Surrogate: 4-Bromofluorobenzene				*80-120 %*	*91.2*	*%*	
Surrogate: 1,2-Dichlorobenzene-d4				*80-120 %*	*99.5*	*%*	

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-01

24A0456-01 (Solid)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM — Sampled: 01/19/2024 09:06

Instrument: NT12 Analyst: JZ — Analyzed: 01/31/2024 16:01

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 24A0456-01 A 01
	Preparation Batch: BMA0626	Sample Size: 10.05 g (wet)	Dry Weight:10.05 g
	Prepared: 01/25/2024	Final Volume: 2.5 mL	% Solids: 100.00
Sample Cleanup:	Cleanup Method: GPC		Extract ID:24A0456-01 A 01
	Cleanup Batch: CMA0141	Initial Volume: 0.5 uL	
	Cleaned: 31-Jan-2024	Final Volume: 0.5 uL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	3	19.0	74.6	ND	ug/kg	U
Naphthalene	91-20-3	3	19.0	74.6	ND	ug/kg	U
1-Methylnaphthalene	90-12-0	3	5.99	74.6	ND	ug/kg	U
1-Methylnaphthalene	90-12-0	3	5.99	74.6	ND	ug/kg	U
2-Chloronaphthalene	91-58-7	3	12.4	74.6	ND	ug/kg	U
2-Chloronaphthalene	91-58-7	3	12.4	74.6	ND	ug/kg	U
Acenaphthylene	208-96-8	3	16.2	74.6	ND	ug/kg	U
Acenaphthylene	208-96-8	3	16.2	74.6	ND	ug/kg	U
Acenaphthene	83-32-9	3	8.52	74.6	ND	ug/kg	U
Acenaphthene	83-32-9	3	8.52	74.6	ND	ug/kg	U
Dibenzofuran	132-64-9	3	20.6	74.6	ND	ug/kg	U
Dibenzofuran	132-64-9	3	20.6	74.6	ND	ug/kg	U
Fluorene	86-73-7	3	9.42	74.6	ND	ug/kg	U
Fluorene	86-73-7	3	9.42	74.6	ND	ug/kg	U
Phenanthrene	85-01-8	3	10.7	74.6	82.6	ug/kg	D
Phenanthrene	85-01-8	3	10.7	74.6	82.6	ug/kg	D
Anthracene	120-12-7	3	13.0	74.6	31.2	ug/kg	J, D
Anthracene	120-12-7	3	13.0	74.6	31.2	ug/kg	J, D
Carbazole	86-74-8	3	14.5	74.6	ND	ug/kg	U
Carbazole	86-74-8	3	14.5	74.6	ND	ug/kg	U
Fluoranthene	206-44-0	3	7.01	74.6	76.7	ug/kg	D
Fluoranthene	206-44-0	3	7.01	74.6	76.7	ug/kg	D
Pyrene	129-00-0	3	9.34	74.6	130	ug/kg	D
Pyrene	129-00-0	3	9.34	74.6	130	ug/kg	D
Benzo(a)anthracene	56-55-3	3	12.3	74.6	195	ug/kg	D
Benzo(a)anthracene	56-55-3	3	12.3	74.6	195	ug/kg	D
Chrysene	218-01-9	3	15.7	74.6	794	ug/kg	D
Chrysene	218-01-9	3	15.7	74.6	794	ug/kg	D
Benzo(b)fluoranthene	205-99-2	3	20.5	74.6	ND	ug/kg	U
Benzo(b)fluoranthene	205-99-2	3	20.5	74.6	ND	ug/kg	U
Benzo(k)fluoranthene	207-08-9	3	11.3	74.6	280	ug/kg	D
Benzo(k)fluoranthene	207-08-9	3	11.3	74.6	280	ug/kg	D

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-01

24A0456-01 (Solid)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM — Sampled: 01/19/2024 09:06

Instrument: NT12 Analyst: JZ — Analyzed: 01/31/2024 16:01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Benzo(j)fluoranthene	205-82-3	3	10.1	74.6	ND	ug/kg	U
Benzo(j)fluoranthene	205-82-3	3	10.1	74.6	ND	ug/kg	U
Benzofluoranthenes, Total		3	44.9	149	314	ug/kg	D
Benzofluoranthenes, Total		3	44.9	149	314	ug/kg	D
Benzo(a)pyrene	50-32-8	3	9.16	74.6	180	ug/kg	D
Benzo(a)pyrene	50-32-8	3	9.16	74.6	180	ug/kg	D
Indeno(1,2,3-cd)pyrene	193-39-5	3	15.7	74.6	56.3	ug/kg	J, D
Indeno(1,2,3-cd)pyrene	193-39-5	3	15.7	74.6	56.3	ug/kg	J, D
Dibenzo(a,h)anthracene	53-70-3	3	13.3	74.6	84.9	ug/kg	D
Dibenzo(a,h)anthracene	53-70-3	3	13.3	74.6	84.9	ug/kg	D
Benzo(g,h,i)perylene	191-24-2	3	15.9	74.6	331	ug/kg	D
Benzo(g,h,i)perylene	191-24-2	3	15.9	74.6	331	ug/kg	D
Surrogate: 2-Methylnaphthalene-d10				*32-120 %*	*81.6*	*%*	
Surrogate: 2-Methylnaphthalene-d10				*32-120 %*	*81.6*	*%*	
Surrogate: Dibenzo[a,h]anthracene-d14				*21-133 %*	*63.6*	*%*	
Surrogate: Dibenzo[a,h]anthracene-d14				*21-133 %*	*63.6*	*%*	
Surrogate: Fluoranthene-d10				*36-134 %*	*112*	*%*	
Surrogate: Fluoranthene-d10				*36-134 %*	*112*	*%*	

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-01

24A0456-01 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 01/19/2024 09:06

Instrument: ICP3 Analyst: SH — Analyzed: 01/25/2024 14:56

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 24A0456-01 B 01

Preparation Batch: BMA0569 — Sample Size: 1.015 g (wet) — Dry Weight:0.97 g

Prepared: 01/25/2024 — Final Volume: 50 mL — % Solids: 95.66

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.474	5.15	0.711	mg/kg	J
Barium	7440-39-3	2	0.268	0.618	11.7	mg/kg	
Cadmium	7440-43-9	2	0.0721	0.206	ND	mg/kg	U
Chromium	7440-47-3	2	0.454	0.927	3.22	mg/kg	
Copper	7440-50-8	2	0.144	0.309	5.61	mg/kg	
Lead	7439-92-1	2	0.247	2.06	1.08	mg/kg	J
Nickel	7440-02-0	2	0.399	1.03	11.2	mg/kg	
Selenium	7782-49-2	2	1.32	5.15	ND	mg/kg	U
Silver	7440-22-4	2	0.0803	0.309	ND	mg/kg	U

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-01

24A0456-01 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 01/19/2024 09:06

Instrument: ICP3 Analyst: SH — Analyzed: 02/19/2024 15:56

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 24A0456-01 B 02

Preparation Batch: BMB0340 — Sample Size: 1.022 g (wet) — Dry Weight:0.98 g

Prepared: 02/13/2024 — Final Volume: 50 mL — % Solids: 95.66

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Zinc	7440-66-6	5	2.05	5.11	24.5	mg/kg	D

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-01

24A0456-01 (Solid)

Metals and Metallic Compounds

Method: EPA 7471B — Sampled: 01/19/2024 09:06

Instrument: HYDRA Analyst: ML — Analyzed: 01/25/2024 13:11

Sample Preparation: Preparation Method: SMM EPA 7471B — Extract ID: 24A0456-01 B

Preparation Batch: BMA0548 — Sample Size: 0.203 g (wet) — Dry Weight:0.19 g

Prepared: 01/24/2024 — Final Volume: 50 mL — % Solids: 95.66

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Mercury	7439-97-6	1	0.00541	0.0257	ND	mg/kg	U

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-02

24A0456-02 (Solid)

Volatile Organic Compounds

Method: EPA 8260D MED — Sampled: 01/19/2024 09:16

Instrument: NT5 Analyst: PB — Analyzed: 01/23/2024 14:36

Sample Preparation: Preparation Method: No Prep - Volatiles — Extract ID: 24A0456-02 D

Preparation Batch: BMA0667 — Sample Size: 17.33 g (wet) — Dry Weight:16.91 g

Prepared: 01/23/2024 — Final Volume: 5 g — % Solids: 97.58

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Chloromethane	74-87-3	50	6.07	16.0	ND	ug/kg	U
Vinyl Chloride	75-01-4	50	5.38	16.0	ND	ug/kg	U
Bromomethane	74-83-9	50	19.2	32.0	ND	ug/kg	U
Chloroethane	75-00-3	50	19.9	32.0	ND	ug/kg	U
Trichlorofluoromethane	75-69-4	50	15.6	32.0	ND	ug/kg	U
Acrolein	107-02-8	50	28.1	80.1	ND	ug/kg	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	50	13.6	32.0	ND	ug/kg	U
Acetone	67-64-1	50	102	160	ND	ug/kg	U
1,1-Dichloroethene	75-35-4	50	5.94	16.0	ND	ug/kg	U
Iodomethane	74-88-4	50	14.5	16.0	ND	ug/kg	U
Methylene Chloride	75-09-2	50	69.9	80.1	ND	ug/kg	U
Acrylonitrile	107-13-1	50	69.3	80.1	ND	ug/kg	U
Carbon Disulfide	75-15-0	50	5.30	16.0	ND	ug/kg	U
trans-1,2-Dichloroethene	156-60-5	50	8.41	16.0	ND	ug/kg	U
Vinyl Acetate	108-05-4	50	52.1	80.1	ND	ug/kg	U
1,1-Dichloroethane	75-34-3	50	4.53	16.0	ND	ug/kg	U
2-Butanone	78-93-3	50	39.1	80.1	ND	ug/kg	U
2,2-Dichloropropane	594-20-7	50	4.92	16.0	ND	ug/kg	U
cis-1,2-Dichloroethene	156-59-2	50	4.12	16.0	ND	ug/kg	U
Chloroform	67-66-3	50	4.61	16.0	ND	ug/kg	U
Bromochloromethane	74-97-5	50	6.33	16.0	ND	ug/kg	U
1,1,1-Trichloroethane	71-55-6	50	9.58	16.0	ND	ug/kg	U
1,1-Dichloropropene	563-58-6	50	4.52	16.0	ND	ug/kg	U
Carbon tetrachloride	56-23-5	50	5.00	16.0	ND	ug/kg	U
1,2-Dichloroethane	107-06-2	50	3.75	16.0	ND	ug/kg	U
Benzene	71-43-2	50	2.64	16.0	ND	ug/kg	U
Trichloroethene	79-01-6	50	4.09	16.0	ND	ug/kg	U
1,2-Dichloropropane	78-87-5	50	5.32	16.0	ND	ug/kg	U
Bromodichloromethane	75-27-4	50	4.12	16.0	ND	ug/kg	U
Dibromomethane	74-95-3	50	5.70	16.0	ND	ug/kg	U
2-Chloroethyl vinyl ether	110-75-8	50	48.3	80.1	ND	ug/kg	U
4-Methyl-2-Pentanone	108-10-1	50	21.9	80.1	ND	ug/kg	U
cis-1,3-Dichloropropene	10061-01-5	50	4.20	16.0	ND	ug/kg	U
Toluene	108-88-3	50	3.96	16.0	5.37	ug/kg	J
trans-1,3-Dichloropropene	10061-02-6	50	6.57	16.0	ND	ug/kg	U

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-02

24A0456-02 (Solid)

Volatile Organic Compounds

Method: EPA 8260D MED — Sampled: 01/19/2024 09:16

Instrument: NT5 Analyst: PB — Analyzed: 01/23/2024 14:36

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
2-Hexanone	591-78-6	50	20.4	80.1	ND	ug/kg	U
1,1,2-Trichloroethane	79-00-5	50	4.29	16.0	ND	ug/kg	U
1,3-Dichloropropane	142-28-9	50	3.75	16.0	ND	ug/kg	U
Tetrachloroethene	127-18-4	50	3.17	16.0	ND	ug/kg	U
Dibromochloromethane	124-48-1	50	4.28	16.0	ND	ug/kg	U
1,2-Dibromoethane	106-93-4	50	4.94	16.0	ND	ug/kg	U
Chlorobenzene	108-90-7	50	3.32	16.0	ND	ug/kg	U
Ethylbenzene	100-41-4	50	3.64	16.0	ND	ug/kg	U
1,1,1,2-Tetrachloroethane	630-20-6	50	5.67	16.0	ND	ug/kg	U
m,p-Xylene	179601-23-1	50	7.92	32.0	ND	ug/kg	U
o-Xylene	95-47-6	50	3.83	16.0	ND	ug/kg	U
Xylenes, total	1330-20-7	50	11.2	32.0	ND	ug/kg	U
Styrene	100-42-5	50	3.94	16.0	ND	ug/kg	U
Bromoform	75-25-2	50	7.40	16.0	ND	ug/kg	U
1,1,2,2-Tetrachloroethane	79-34-5	50	4.39	16.0	ND	ug/kg	U
1,2,3-Trichloropropane	96-18-4	50	24.0	32.0	ND	ug/kg	U
trans-1,4-Dichloro 2-Butene	110-57-6	50	44.1	80.1	ND	ug/kg	U
n-Propylbenzene	103-65-1	50	3.78	16.0	ND	ug/kg	U
Bromobenzene	108-86-1	50	3.96	16.0	ND	ug/kg	U
Isopropyl Benzene	98-82-8	50	4.20	16.0	ND	ug/kg	U
2-Chlorotoluene	95-49-8	50	3.46	16.0	ND	ug/kg	U
4-Chlorotoluene	106-43-4	50	4.68	16.0	ND	ug/kg	U
t-Butylbenzene	98-06-6	50	4.02	16.0	ND	ug/kg	U
1,3,5-Trimethylbenzene	108-67-8	50	4.05	16.0	ND	ug/kg	U
1,2,4-Trimethylbenzene	95-63-6	50	4.25	16.0	ND	ug/kg	U
s-Butylbenzene	135-98-8	50	3.86	16.0	ND	ug/kg	U
4-Isopropyl Toluene	99-87-6	50	4.65	16.0	ND	ug/kg	U
1,3-Dichlorobenzene	541-73-1	50	3.91	16.0	ND	ug/kg	U
1,4-Dichlorobenzene	106-46-7	50	6.91	16.0	ND	ug/kg	U
n-Butylbenzene	104-51-8	50	4.49	16.0	ND	ug/kg	U
1,2-Dichlorobenzene	95-50-1	50	10.5	16.0	ND	ug/kg	U
1,2-Dibromo-3-Chloropropane	96-12-8	50	37.8	80.1	ND	ug/kg	U
1,2,4-Trichlorobenzene	120-82-1	50	29.1	80.1	ND	ug/kg	U
Hexachloro-1,3-Butadiene	87-68-3	50	66.9	80.1	ND	ug/kg	U
Naphthalene	91-20-3	50	39.5	80.1	ND	ug/kg	U
1,2,3-Trichlorobenzene	87-61-6	50	37.2	80.1	ND	ug/kg	U
Dichlorodifluoromethane	75-71-8	50	6.46	16.0	ND	ug/kg	U
Methyl tert-butyl Ether	1634-04-4	50	4.07	16.0	ND	ug/kg	U

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-02

24A0456-02 (Solid)

Volatile Organic Compounds

Method: EPA 8260D MED — Sampled: 01/19/2024 09:16

Instrument: NT5 Analyst: PB — Analyzed: 01/23/2024 14:36

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
2-Pentanone	107-87-9	50	34.4	80.1	ND	ug/kg	U
Surrogate: 1,2-Dichloroethane-d4				*80-124 %*	*132*	*%*	*, Q
Surrogate: Toluene-d8				*80-120 %*	*107*	*%*	
Surrogate: 4-Bromofluorobenzene				*80-120 %*	*90.1*	*%*	
Surrogate: 1,2-Dichlorobenzene-d4				*80-120 %*	*102*	*%*	

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-02

24A0456-02 (Solid)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM — Sampled: 01/19/2024 09:16

Instrument: NT12 Analyst: JZ — Analyzed: 01/31/2024 16:29

Sample Preparation:	Preparation Method: EPA 3546 (Microwave)		Extract ID: 24A0456-02 A 01
	Preparation Batch: BMA0626	Sample Size: 10.68 g (wet)	Dry Weight:10.01 g
	Prepared: 01/25/2024	Final Volume: 2.5 mL	% Solids: 93.72
Sample Cleanup:	Cleanup Method: GPC		Extract ID:24A0456-02 A 01
	Cleanup Batch: CMA0142	Initial Volume: 2.5 uL	
	Cleaned: 31-Jan-2024	Final Volume: 2.5 uL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	3	19.1	74.9	ND	ug/kg	U
Naphthalene	91-20-3	3	19.1	74.9	ND	ug/kg	U
1-Methylnaphthalene	90-12-0	3	6.01	74.9	ND	ug/kg	U
1-Methylnaphthalene	90-12-0	3	6.01	74.9	ND	ug/kg	U
2-Chloronaphthalene	91-58-7	3	12.5	74.9	ND	ug/kg	U
2-Chloronaphthalene	91-58-7	3	12.5	74.9	ND	ug/kg	U
Acenaphthylene	208-96-8	3	16.2	74.9	ND	ug/kg	U
Acenaphthylene	208-96-8	3	16.2	74.9	ND	ug/kg	U
Acenaphthene	83-32-9	3	8.56	74.9	ND	ug/kg	U
Acenaphthene	83-32-9	3	8.56	74.9	ND	ug/kg	U
Dibenzofuran	132-64-9	3	20.7	74.9	ND	ug/kg	U
Dibenzofuran	132-64-9	3	20.7	74.9	ND	ug/kg	U
Fluorene	86-73-7	3	9.46	74.9	ND	ug/kg	U
Fluorene	86-73-7	3	9.46	74.9	ND	ug/kg	U
Phenanthrene	85-01-8	3	10.8	74.9	50.6	ug/kg	J, D
Phenanthrene	85-01-8	3	10.8	74.9	50.6	ug/kg	J, D
Anthracene	120-12-7	3	13.1	74.9	63.5	ug/kg	J, D
Anthracene	120-12-7	3	13.1	74.9	63.5	ug/kg	J, D
Carbazole	86-74-8	3	14.6	74.9	ND	ug/kg	U
Carbazole	86-74-8	3	14.6	74.9	ND	ug/kg	U
Fluoranthene	206-44-0	3	7.04	74.9	16.6	ug/kg	J, D
Fluoranthene	206-44-0	3	7.04	74.9	16.6	ug/kg	J, D
Pyrene	129-00-0	3	9.38	74.9	118	ug/kg	D
Pyrene	129-00-0	3	9.38	74.9	118	ug/kg	D
Benzo(a)anthracene	56-55-3	3	12.3	74.9	47.6	ug/kg	J, D
Benzo(a)anthracene	56-55-3	3	12.3	74.9	47.6	ug/kg	J, D
Chrysene	218-01-9	3	15.8	74.9	1200	ug/kg	D
Chrysene	218-01-9	3	15.8	74.9	1200	ug/kg	D
Benzo(b)fluoranthene	205-99-2	3	20.6	74.9	ND	ug/kg	U
Benzo(b)fluoranthene	205-99-2	3	20.6	74.9	ND	ug/kg	U
Benzo(k)fluoranthene	207-08-9	3	11.4	74.9	649	ug/kg	D
Benzo(k)fluoranthene	207-08-9	3	11.4	74.9	649	ug/kg	D

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-02

24A0456-02 (Solid)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM — Sampled: 01/19/2024 09:16

Instrument: NT12 Analyst: JZ — Analyzed: 01/31/2024 16:29

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Benzo(j)fluoranthene	205-82-3	3	10.2	74.9	ND	ug/kg	U
Benzo(j)fluoranthene	205-82-3	3	10.2	74.9	ND	ug/kg	U
Benzofluoranthenes, Total		3	45.1	150	680	ug/kg	D
Benzofluoranthenes, Total		3	45.1	150	680	ug/kg	D
Benzo(a)pyrene	50-32-8	3	9.20	74.9	1270	ug/kg	D
Benzo(a)pyrene	50-32-8	3	9.20	74.9	1270	ug/kg	D
Indeno(1,2,3-cd)pyrene	193-39-5	3	15.7	74.9	42.8	ug/kg	J, D
Indeno(1,2,3-cd)pyrene	193-39-5	3	15.7	74.9	42.8	ug/kg	J, D
Dibenzo(a,h)anthracene	53-70-3	3	13.4	74.9	129	ug/kg	D
Dibenzo(a,h)anthracene	53-70-3	3	13.4	74.9	129	ug/kg	D
Benzo(g,h,i)perylene	191-24-2	3	16.0	74.9	230	ug/kg	D
Benzo(g,h,i)perylene	191-24-2	3	16.0	74.9	230	ug/kg	D
Surrogate: 2-Methylnaphthalene-d10				*32-120 %*	*34.9*	*%*	
Surrogate: 2-Methylnaphthalene-d10				*32-120 %*	*34.9*	*%*	
Surrogate: Dibenzo[a,h]anthracene-d14				*21-133 %*	*42.0*	*%*	
Surrogate: Dibenzo[a,h]anthracene-d14				*21-133 %*	*42.0*	*%*	
Surrogate: Fluoranthene-d10				*36-134 %*	*53.8*	*%*	
Surrogate: Fluoranthene-d10				*36-134 %*	*53.8*	*%*	

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-02

24A0456-02 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 01/19/2024 09:16

Instrument: ICP3 Analyst: SH — Analyzed: 01/25/2024 14:59

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 24A0456-02 B 01

Preparation Batch: BMA0569 — Sample Size: 1.039 g (wet) — Dry Weight:0.96 g

Prepared: 01/25/2024 — Final Volume: 50 mL — % Solids: 92.34

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.479	5.21	1.06	mg/kg	J
Barium	7440-39-3	2	0.271	0.625	6.23	mg/kg	
Cadmium	7440-43-9	2	0.0730	0.208	ND	mg/kg	U
Chromium	7440-47-3	2	0.460	0.938	2.22	mg/kg	
Copper	7440-50-8	2	0.146	0.313	3.92	mg/kg	
Lead	7439-92-1	2	0.250	2.08	1.22	mg/kg	J
Nickel	7440-02-0	2	0.403	1.04	8.03	mg/kg	
Selenium	7782-49-2	2	1.33	5.21	ND	mg/kg	U
Silver	7440-22-4	2	0.0813	0.313	ND	mg/kg	U

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-02

24A0456-02 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 01/19/2024 09:16

Instrument: ICP3 Analyst: SH — Analyzed: 02/14/2024 15:50

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 24A0456-02 B 02

Preparation Batch: BMB0340 — Sample Size: 1.017 g (wet) — Dry Weight:0.94 g

Prepared: 02/13/2024 — Final Volume: 50 mL — % Solids: 92.34

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Zinc	7440-66-6	2	0.852	2.13	13.8	mg/kg	

Analytical Resources, LLC
Analytical Chemists and Consultants

Analytical Report

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

308130-02

24A0456-02 (Solid)

Metals and Metallic Compounds

Method: EPA 7471B — Sampled: 01/19/2024 09:16

Instrument: HYDRA Analyst: ML — Analyzed: 01/25/2024 13:13

Sample Preparation: Preparation Method: SMM EPA 7471B — Extract ID: 24A0456-02 B

Preparation Batch: BMA0548 — Sample Size: 0.215 g (wet) — Dry Weight:0.20 g

Prepared: 01/24/2024 — Final Volume: 50 mL — % Solids: 92.34

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Mercury	7439-97-6	1	0.00529	0.0252	ND	mg/kg	U

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMA0667-BLK1)				Prepared: 23-Jan-2024 Analyzed: 23-Jan-2024 09:14							
Chloromethane	ND	19.0	50.0	ug/kg							U
Vinyl Chloride	ND	16.8	50.0	ug/kg							U
Bromomethane	ND	60.0	100	ug/kg							U
Chloroethane	ND	62.2	100	ug/kg							U
Trichlorofluoromethane	ND	48.8	100	ug/kg							U
Acrolein	ND	87.6	250	ug/kg							U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	42.4	100	ug/kg							U
Acetone	ND	317	500	ug/kg							U
1,1-Dichloroethene	ND	18.6	50.0	ug/kg							U
Iodomethane	ND	45.3	50.0	ug/kg							U
Methylene Chloride	ND	218	250	ug/kg							U
Acrylonitrile	ND	216	250	ug/kg							U
Carbon Disulfide	ND	16.6	50.0	ug/kg							U
trans-1,2-Dichloroethene	ND	26.3	50.0	ug/kg							U
Vinyl Acetate	ND	163	250	ug/kg							U
1,1-Dichloroethane	ND	14.2	50.0	ug/kg							U
2-Butanone	ND	122	250	ug/kg							U
2,2-Dichloropropane	ND	15.4	50.0	ug/kg							U
cis-1,2-Dichloroethene	ND	12.9	50.0	ug/kg							U
Chloroform	ND	14.4	50.0	ug/kg							U
Bromochloromethane	ND	19.8	50.0	ug/kg							U
1,1,1-Trichloroethane	ND	29.9	50.0	ug/kg							U
1,1-Dichloropropene	ND	14.1	50.0	ug/kg							U
Carbon tetrachloride	ND	15.6	50.0	ug/kg							U
1,2-Dichloroethane	ND	11.7	50.0	ug/kg							U
Benzene	ND	8.25	50.0	ug/kg							U
Trichloroethene	ND	12.8	50.0	ug/kg							U
1,2-Dichloropropane	ND	16.6	50.0	ug/kg							U
Bromodichloromethane	ND	12.9	50.0	ug/kg							U
Dibromomethane	ND	17.8	50.0	ug/kg							U
2-Chloroethyl vinyl ether	ND	151	250	ug/kg							U
4-Methyl-2-Pentanone	ND	68.3	250	ug/kg							U
cis-1,3-Dichloropropene	ND	13.1	50.0	ug/kg							U
Toluene	ND	12.4	50.0	ug/kg							U
trans-1,3-Dichloropropene	ND	20.5	50.0	ug/kg							U

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMA0667-BLK1)				Prepared: 23-Jan-2024 Analyzed: 23-Jan-2024 09:14							
2-Hexanone	ND	63.6	250	ug/kg							U
1,1,2-Trichloroethane	ND	13.4	50.0	ug/kg							U
1,3-Dichloropropane	ND	11.7	50.0	ug/kg							U
Tetrachloroethene	ND	9.90	50.0	ug/kg							U
Dibromochloromethane	ND	13.4	50.0	ug/kg							U
1,2-Dibromoethane	ND	15.4	50.0	ug/kg							U
Chlorobenzene	ND	10.4	50.0	ug/kg							U
Ethylbenzene	ND	11.4	50.0	ug/kg							U
1,1,1,2-Tetrachloroethane	ND	17.7	50.0	ug/kg							U
m,p-Xylene	ND	24.7	100	ug/kg							U
o-Xylene	ND	12.0	50.0	ug/kg							U
Xylenes, total	ND	34.9	100	ug/kg							U
Styrene	ND	12.3	50.0	ug/kg							U
Bromoform	ND	23.1	50.0	ug/kg							U
1,1,2,2-Tetrachloroethane	ND	13.7	50.0	ug/kg							U
1,2,3-Trichloropropane	ND	74.9	100	ug/kg							U
trans-1,4-Dichloro 2-Butene	ND	138	250	ug/kg							U
n-Propylbenzene	ND	11.8	50.0	ug/kg							U
Bromobenzene	ND	12.4	50.0	ug/kg							U
Isopropyl Benzene	ND	13.1	50.0	ug/kg							U
2-Chlorotoluene	ND	10.8	50.0	ug/kg							U
4-Chlorotoluene	ND	14.6	50.0	ug/kg							U
t-Butylbenzene	ND	12.6	50.0	ug/kg							U
1,3,5-Trimethylbenzene	ND	12.7	50.0	ug/kg							U
1,2,4-Trimethylbenzene	ND	13.3	50.0	ug/kg							U
s-Butylbenzene	ND	12.1	50.0	ug/kg							U
4-Isopropyl Toluene	ND	14.5	50.0	ug/kg							U
1,3-Dichlorobenzene	ND	12.2	50.0	ug/kg							U
1,4-Dichlorobenzene	ND	21.6	50.0	ug/kg							U
n-Butylbenzene	ND	14.0	50.0	ug/kg							U
1,2-Dichlorobenzene	ND	32.7	50.0	ug/kg							U
1,2-Dibromo-3-Chloropropane	ND	118	250	ug/kg							U
1,2,4-Trichlorobenzene	ND	90.9	250	ug/kg							U
Hexachloro-1,3-Butadiene	ND	209	250	ug/kg							U
Naphthalene	ND	123	250	ug/kg							U

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMA0667-BLK1)				Prepared: 23-Jan-2024 Analyzed: 23-Jan-2024 09:14							
1,2,3-Trichlorobenzene	ND	116	250	ug/kg							U
Dichlorodifluoromethane	ND	20.2	50.0	ug/kg							U
Methyl tert-butyl Ether	ND	12.7	50.0	ug/kg							U
2-Pentanone	ND	107	250	ug/kg							U
Surrogate: 1,2-Dichloroethane-d4	63.5			ug/kg	*50.0*		*127*	*80-124*			**, Q*
Surrogate: Toluene-d8	52.8			ug/kg	*50.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	45.3			ug/kg	*50.0*		*90.5*	*80-120*			
Surrogate: 1,2-Dichlorobenzene-d4	51.9			ug/kg	*50.0*		*104*	*80-120*			

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BMA0667-BS1)				Prepared: 23-Jan-2024 Analyzed: 23-Jan-2024 08:00							
Chloromethane	2660			ug/kg	2500		106	42-153			
Vinyl Chloride	2940			ug/kg	2500		118	71-135			
Bromomethane	3280			ug/kg	2500		131	41-147			Q
Chloroethane	2860			ug/kg	2500		114	58-150			
Trichlorofluoromethane	2630			ug/kg	2500		105	57-157			
Acrolein	15700			ug/kg	12500		126	45-149			Q
1,1,2-Trichloro-1,2,2-Trifluoroethane	2840			ug/kg	2500		114	70-133			
Acetone	15400			ug/kg	12500		123	45-147			Q
1,1-Dichloroethene	2810			ug/kg	2500		112	67-132			
Iodomethane	2550			ug/kg	2500		102	42-187			
Methylene Chloride	2680			ug/kg	2500		107	53-169			
Acrylonitrile	2880			ug/kg	2500		115	63-133			
Carbon Disulfide	2850			ug/kg	2500		114	62-140			
trans-1,2-Dichloroethene	2800			ug/kg	2500		112	71-136			
Vinyl Acetate	2550			ug/kg	2500		102	49-149			
1,1-Dichloroethane	2880			ug/kg	2500		115	71-127			
2-Butanone	14800			ug/kg	12500		119	65-136			
2,2-Dichloropropane	2300			ug/kg	2500		92.2	73-129			
cis-1,2-Dichloroethene	2700			ug/kg	2500		108	77-121			
Chloroform	2930			ug/kg	2500		117	76-123			
Bromochloromethane	2740			ug/kg	2500		110	78-120			
1,1,1-Trichloroethane	2860			ug/kg	2500		115	76-125			
1,1-Dichloropropene	2620			ug/kg	2500		105	66-136			
Carbon tetrachloride	2350			ug/kg	2500		93.8	73-127			
1,2-Dichloroethane	2680			ug/kg	2500		107	75-120			
Benzene	2520			ug/kg	2500		101	80-120			
Trichloroethene	2380			ug/kg	2500		95.1	77-120			
1,2-Dichloropropane	2570			ug/kg	2500		103	78-120			
Bromodichloromethane	2560			ug/kg	2500		103	73-128			
Dibromomethane	2540			ug/kg	2500		102	78-120			
2-Chloroethyl vinyl ether	1800			ug/kg	2500		72.1	56-120			Q
4-Methyl-2-Pentanone	13400			ug/kg	12500		107	67-120			
cis-1,3-Dichloropropene	2540			ug/kg	2500		102	80-120			
Toluene	2440			ug/kg	2500		97.6	77-120			
trans-1,3-Dichloropropene	2500			ug/kg	2500		99.9	77-120			

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BMA0667-BS1)				Prepared: 23-Jan-2024 Analyzed: 23-Jan-2024 08:00							
2-Hexanone	13100			ug/kg	12500		105	73-122			
1,1,2-Trichloroethane	2500			ug/kg	2500		99.8	75-120			
1,3-Dichloropropane	2470			ug/kg	2500		98.8	73-120			
Tetrachloroethene	2240			ug/kg	2500		89.5	77-124			
Dibromochloromethane	2370			ug/kg	2500		94.8	75-120			
1,2-Dibromoethane	2430			ug/kg	2500		97.0	79-120			
Chlorobenzene	2400			ug/kg	2500		96.0	77-120			
Ethylbenzene	2480			ug/kg	2500		99.4	79-122			
1,1,1,2-Tetrachloroethane	2210			ug/kg	2500		88.4	78-120			
m,p-Xylene	4880			ug/kg	5000		97.6	77-121			
o-Xylene	2390			ug/kg	2500		95.8	79-120			
Xylenes, total	7280			ug/kg	7500		97.0	80-120			
Styrene	2400			ug/kg	2500		96.1	77-124			
Bromoform	2310			ug/kg	2500		92.3	71-120			
1,1,2,2-Tetrachloroethane	2700			ug/kg	2500		108	70-120			
1,2,3-Trichloropropane	2730			ug/kg	2500		109	67-120			
trans-1,4-Dichloro 2-Butene	2600			ug/kg	2500		104	66-120			
n-Propylbenzene	2690			ug/kg	2500		107	80-125			
Bromobenzene	2310			ug/kg	2500		92.4	76-120			
Isopropyl Benzene	2660			ug/kg	2500		106	74-130			
2-Chlorotoluene	2640			ug/kg	2500		106	77-120			
4-Chlorotoluene	2690			ug/kg	2500		107	77-121			
t-Butylbenzene	2510			ug/kg	2500		100	74-126			
1,3,5-Trimethylbenzene	2630			ug/kg	2500		105	79-124			
1,2,4-Trimethylbenzene	2620			ug/kg	2500		105	79-125			
s-Butylbenzene	2560			ug/kg	2500		103	80-127			
4-Isopropyl Toluene	2540			ug/kg	2500		102	75-132			
1,3-Dichlorobenzene	2380			ug/kg	2500		95.2	75-126			
1,4-Dichlorobenzene	2380			ug/kg	2500		95.4	74-124			
n-Butylbenzene	2670			ug/kg	2500		107	75-136			
1,2-Dichlorobenzene	2360			ug/kg	2500		94.4	76-120			
1,2-Dibromo-3-Chloropropane	2740			ug/kg	2500		110	60-142			
1,2,4-Trichlorobenzene	2310			ug/kg	2500		92.3	73-136			
Hexachloro-1,3-Butadiene	2080			ug/kg	2500		83.2	71-133			
Naphthalene	2460			ug/kg	2500		98.6	63-130			

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BMA0667-BS1)				Prepared: 23-Jan-2024 Analyzed: 23-Jan-2024 08:00							
1,2,3-Trichlorobenzene	2260			ug/kg	2500		90.5	70-129			
Dichlorodifluoromethane	2670			ug/kg	2500		107	62-143			
Methyl tert-butyl Ether	2710			ug/kg	2500		109	68-132			
2-Pentanone	13700			ug/kg	12500		110	63-122			
Surrogate: 1,2-Dichloroethane-d4	60.7			ug/kg	*50.0*		*121*	*80-124*			*Q*
Surrogate: Toluene-d8	52.9			ug/kg	*50.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	45.0			ug/kg	*50.0*		*89.9*	*80-120*			
Surrogate: 1,2-Dichlorobenzene-d4	51.4			ug/kg	*50.0*		*103*	*80-120*			

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BMA0667-BSD1)				Prepared: 23-Jan-2024 Analyzed: 23-Jan-2024 09:38							
Chloromethane	2700			ug/kg	2500		108	42-153	1.62	30	
Vinyl Chloride	2930			ug/kg	2500		117	71-135	0.42	30	
Bromomethane	3360			ug/kg	2500		134	41-147	2.37	30	Q
Chloroethane	3110			ug/kg	2500		124	58-150	8.44	30	
Trichlorofluoromethane	2680			ug/kg	2500		107	57-157	2.13	30	
Acrolein	16000			ug/kg	12500		128	45-149	1.65	30	Q
1,1,2-Trichloro-1,2,2-Trifluoroethane	2970			ug/kg	2500		119	70-133	4.28	30	
Acetone	15500			ug/kg	12500		124	45-147	0.54	30	Q
1,1-Dichloroethene	2860			ug/kg	2500		115	67-132	1.93	30	
Iodomethane	2580			ug/kg	2500		103	42-187	1.11	30	
Methylene Chloride	2750			ug/kg	2500		110	53-169	2.75	30	
Acrylonitrile	2900			ug/kg	2500		116	63-133	0.77	30	
Carbon Disulfide	2980			ug/kg	2500		119	62-140	4.74	30	
trans-1,2-Dichloroethene	2920			ug/kg	2500		117	71-136	4.10	30	
Vinyl Acetate	2740			ug/kg	2500		110	49-149	7.36	30	
1,1-Dichloroethane	2920			ug/kg	2500		117	71-127	1.11	30	
2-Butanone	14400			ug/kg	12500		115	65-136	2.80	30	
2,2-Dichloropropane	2480			ug/kg	2500		99.2	73-129	7.32	30	
cis-1,2-Dichloroethene	2730			ug/kg	2500		109	77-121	1.00	30	
Chloroform	2950			ug/kg	2500		118	76-123	0.89	30	
Bromochloromethane	2830			ug/kg	2500		113	78-120	3.38	30	
1,1,1-Trichloroethane	2930			ug/kg	2500		117	76-125	2.20	30	
1,1-Dichloropropene	2650			ug/kg	2500		106	66-136	1.23	30	
Carbon tetrachloride	2410			ug/kg	2500		96.5	73-127	2.83	30	
1,2-Dichloroethane	2720			ug/kg	2500		109	75-120	1.17	30	
Benzene	2550			ug/kg	2500		102	80-120	0.96	30	
Trichloroethene	2400			ug/kg	2500		95.8	77-120	0.74	30	
1,2-Dichloropropane	2610			ug/kg	2500		104	78-120	1.53	30	
Bromodichloromethane	2620			ug/kg	2500		105	73-128	2.28	30	
Dibromomethane	2620			ug/kg	2500		105	78-120	2.80	30	
2-Chloroethyl vinyl ether	1800			ug/kg	2500		72.0	56-120	0.18	30	Q
4-Methyl-2-Pentanone	13300			ug/kg	12500		106	67-120	0.94	30	
cis-1,3-Dichloropropene	2600			ug/kg	2500		104	80-120	2.18	30	
Toluene	2470			ug/kg	2500		98.8	77-120	1.26	30	
trans-1,3-Dichloropropene	2530			ug/kg	2500		101	77-120	1.30	30	

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BMA0667-BSD1)				Prepared: 23-Jan-2024 Analyzed: 23-Jan-2024 09:38							
2-Hexanone	13100			ug/kg	12500		105	73-122	0.06	30	
1,1,2-Trichloroethane	2490			ug/kg	2500		99.5	75-120	0.32	30	
1,3-Dichloropropane	2550			ug/kg	2500		102	73-120	2.99	30	
Tetrachloroethene	2280			ug/kg	2500		91.2	77-124	1.80	30	
Dibromochloromethane	2430			ug/kg	2500		97.3	75-120	2.55	30	
1,2-Dibromoethane	2510			ug/kg	2500		100	79-120	3.39	30	
Chlorobenzene	2420			ug/kg	2500		96.9	77-120	0.97	30	
Ethylbenzene	2540			ug/kg	2500		102	79-122	2.30	30	
1,1,1,2-Tetrachloroethane	2280			ug/kg	2500		91.4	78-120	3.32	30	
m,p-Xylene	4990			ug/kg	5000		99.8	77-121	2.16	30	
o-Xylene	2460			ug/kg	2500		98.5	79-120	2.81	30	
Xylenes, total	7450			ug/kg	7500		99.3	80-120	2.37	30	
Styrene	2470			ug/kg	2500		98.8	77-124	2.77	30	
Bromoform	2380			ug/kg	2500		95.3	71-120	3.17	30	
1,1,2,2-Tetrachloroethane	2650			ug/kg	2500		106	70-120	1.91	30	
1,2,3-Trichloropropane	2730			ug/kg	2500		109	67-120	0.22	30	
trans-1,4-Dichloro 2-Butene	2590			ug/kg	2500		104	66-120	0.39	30	
n-Propylbenzene	2740			ug/kg	2500		110	80-125	2.12	30	
Bromobenzene	2390			ug/kg	2500		95.5	76-120	3.27	30	
Isopropyl Benzene	2690			ug/kg	2500		107	74-130	1.19	30	
2-Chlorotoluene	2710			ug/kg	2500		108	77-120	2.49	30	
4-Chlorotoluene	2750			ug/kg	2500		110	77-121	2.53	30	
t-Butylbenzene	2590			ug/kg	2500		103	74-126	2.94	30	
1,3,5-Trimethylbenzene	2720			ug/kg	2500		109	79-124	3.40	30	
1,2,4-Trimethylbenzene	2690			ug/kg	2500		108	79-125	2.77	30	
s-Butylbenzene	2640			ug/kg	2500		106	80-127	2.94	30	
4-Isopropyl Toluene	2680			ug/kg	2500		107	75-132	5.20	30	
1,3-Dichlorobenzene	2440			ug/kg	2500		97.5	75-126	2.32	30	
1,4-Dichlorobenzene	2500			ug/kg	2500		100	74-124	4.83	30	
n-Butylbenzene	2810			ug/kg	2500		112	75-136	5.10	30	
1,2-Dichlorobenzene	2430			ug/kg	2500		97.2	76-120	2.92	30	
1,2-Dibromo-3-Chloropropane	2700			ug/kg	2500		108	60-142	1.61	30	
1,2,4-Trichlorobenzene	2480			ug/kg	2500		99.3	73-136	7.29	30	
Hexachloro-1,3-Butadiene	2260			ug/kg	2500		90.4	71-133	8.28	30	
Naphthalene	2520			ug/kg	2500		101	63-130	2.41	30	

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Instrument: NT5 Analyst: PB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BMA0667-BSD1)				Prepared: 23-Jan-2024 Analyzed: 23-Jan-2024 09:38							
1,2,3-Trichlorobenzene	2390			ug/kg	2500		95.6	70-129	5.43	30	
Dichlorodifluoromethane	2710			ug/kg	2500		109	62-143	1.48	30	
Methyl tert-butyl Ether	2820			ug/kg	2500		113	68-132	3.81	30	
2-Pentanone	13300			ug/kg	12500		106	63-122	3.26	30	
Surrogate: 1,2-Dichloroethane-d4	61.6			ug/kg	*50.0*		*123*	*80-124*			*Q*
Surrogate: Toluene-d8	53.3			ug/kg	*50.0*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	45.1			ug/kg	*50.0*		*90.3*	*80-120*			
Surrogate: 1,2-Dichlorobenzene-d4	52.6			ug/kg	*50.0*		*105*	*80-120*			

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BMA0667 - EPA 8260D MED

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - SIM - Quality Control

Batch BMA0626 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMA0626-BLK1)				Prepared: 25-Jan-2024 Analyzed: 31-Jan-2024 15:05							
Naphthalene	ND	1.28	5.00	ug/kg							U
1-Methylnaphthalene	ND	0.40	5.00	ug/kg							U
2-Chloronaphthalene	ND	0.83	5.00	ug/kg							U
Acenaphthylene	ND	1.08	5.00	ug/kg							U
Acenaphthene	ND	0.57	5.00	ug/kg							U
Dibenzofuran	ND	1.38	5.00	ug/kg							U
Fluorene	ND	0.63	5.00	ug/kg							U
Phenanthrene	ND	0.72	5.00	ug/kg							U
Anthracene	ND	0.87	5.00	ug/kg							U
Carbazole	ND	0.97	5.00	ug/kg							U
Fluoranthene	4.18	0.47	5.00	ug/kg							J
Pyrene	4.91	0.63	5.00	ug/kg							J
Benzo(a)anthracene	1.20	0.82	5.00	ug/kg							J
Chrysene	1.68	1.05	5.00	ug/kg							J
Benzo(b)fluoranthene	ND	1.37	5.00	ug/kg							U
Benzo(k)fluoranthene	ND	0.76	5.00	ug/kg							U
Benzo(j)fluoranthene	ND	0.68	5.00	ug/kg							U
Benzofluoranthenes, Total	ND	3.01	10.0	ug/kg							U
Benzo(a)pyrene	ND	0.61	5.00	ug/kg							U
Indeno(1,2,3-cd)pyrene	ND	1.05	5.00	ug/kg							U
Dibenzo(a,h)anthracene	ND	0.89	5.00	ug/kg							U
Benzo(g,h,i)perylene	ND	1.07	5.00	ug/kg							U
Surrogate: 2-Methylnaphthalene-d10	84.0			ug/kg	*150*		*56.0*	*32-120*			
Surrogate: Dibenzo[a,h]anthracene-d14	134			ug/kg	*150*		*89.7*	*21-133*			
Surrogate: Fluoranthene-d10	130			ug/kg	*150*		*86.9*	*36-134*			

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - SIM - Quality Control

Batch BMA0626 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BMA0626-BS1)					Prepared: 25-Jan-2024 Analyzed: 31-Jan-2024 15:33						
Naphthalene	142	1.28	5.00	ug/kg	300		47.5	23-120			
1-Methylnaphthalene	144	0.40	5.00	ug/kg	300		47.8	26-120			
2-Chloronaphthalene	168	0.83	5.00	ug/kg	300		55.9	40-120			
Acenaphthylene	135	1.08	5.00	ug/kg	300		45.1	16-120			
Acenaphthene	155	0.57	5.00	ug/kg	300		51.8	23-120			
Dibenzofuran	163	1.38	5.00	ug/kg	300		54.2	26-120			
Fluorene	169	0.63	5.00	ug/kg	300		56.5	27-120			
Phenanthrene	203	0.72	5.00	ug/kg	300		67.5	30-120			
Anthracene	172	0.87	5.00	ug/kg	300		57.4	22-120			
Carbazole	225	0.97	5.00	ug/kg	300		75.0	30-160			
Fluoranthene	216	0.47	5.00	ug/kg	300		72.0	31-120			
Pyrene	235	0.63	5.00	ug/kg	300		78.3	30-120			
Benzo(a)anthracene	229	0.82	5.00	ug/kg	300		76.4	32-120			
Chrysene	228	1.05	5.00	ug/kg	300		76.2	35-120			
Benzo(b)fluoranthene	257	1.37	5.00	ug/kg	300		85.7	25-150			
Benzo(k)fluoranthene	255	0.76	5.00	ug/kg	300		85.0	30-141			
Benzo(j)fluoranthene	267	0.68	5.00	ug/kg	300		88.9	26-143			
Benzofluoranthenes, Total	765	3.01	10.0	ug/kg	900		85.0	29-141			
Benzo(a)pyrene	189	0.61	5.00	ug/kg	300		62.9	19-120			
Indeno(1,2,3-cd)pyrene	228	1.05	5.00	ug/kg	300		75.9	36-138			
Dibenzo(a,h)anthracene	243	0.89	5.00	ug/kg	300		81.0	35-149			
Benzo(g,h,i)perylene	257	1.07	5.00	ug/kg	300		85.6	35-144			
Surrogate: 2-Methylnaphthalene-d10	77.3			ug/kg	*150*		*51.5*	*32-120*			
Surrogate: Dibenzo[a,h]anthracene-d14	129			ug/kg	*150*		*85.8*	*21-133*			
Surrogate: Fluoranthene-d10	115			ug/kg	*150*		*76.6*	*36-134*			

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - SIM - Quality Control

Batch BMA0626 - EPA 8270E-SIM

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BMA0548 - EPA 7471B

Instrument: HYDRA Analyst: ML

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMA0548-BLK1)				Prepared: 24-Jan-2024 Analyzed: 25-Jan-2024 11:13							
Mercury	ND	0.00525	0.0250	mg/kg							U
LCS (BMA0548-BS1)				Prepared: 24-Jan-2024 Analyzed: 25-Jan-2024 11:15							
Mercury	0.481	0.00525	0.0250	mg/kg	0.500		96.3	80-120			
Reference (BMA0548-SRM1)				Prepared: 24-Jan-2024 Analyzed: 25-Jan-2024 12:45							
Mercury	14.7	0.104	0.498	mg/kg	14.9		98.3	74.5-128.86			D

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BMA0569 - EPA 6010D

Instrument: ICP3 Analyst: SH

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMA0569-BLK1)				Prepared: 25-Jan-2024 Analyzed: 25-Jan-2024 14:48							
Arsenic	ND	0.460	5.00	mg/kg							U
Barium	ND	0.260	0.600	mg/kg							U
Cadmium	ND	0.0700	0.200	mg/kg							U
Chromium	ND	0.441	0.900	mg/kg							U
Copper	ND	0.140	0.300	mg/kg							U
Lead	ND	0.240	2.00	mg/kg							U
Nickel	ND	0.387	1.00	mg/kg							U
Selenium	ND	1.28	5.00	mg/kg							U
Silver	ND	0.0780	0.300	mg/kg							U
LCS (BMA0569-BS1)				Prepared: 25-Jan-2024 Analyzed: 25-Jan-2024 14:51							
Arsenic	193	0.460	5.00	mg/kg	200		96.7	80-120			
Barium	194	0.260	0.600	mg/kg	200		96.8	80-120			
Cadmium	49.9	0.0700	0.200	mg/kg	50.0		99.7	80-120			
Chromium	48.9	0.441	0.900	mg/kg	50.0		97.7	80-120			
Copper	49.0	0.140	0.300	mg/kg	50.0		98.0	80-120			
Lead	195	0.240	2.00	mg/kg	200		97.6	80-120			
Nickel	48.8	0.387	1.00	mg/kg	50.0		97.5	80-120			
Selenium	193	1.28	5.00	mg/kg	200		96.4	80-120			
Silver	48.7	0.0780	0.300	mg/kg	50.0		97.4	80-120			

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BMB0340 - EPA 6010D

Instrument: ICP3 Analyst: SH

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BMB0340-BLK1)					Prepared: 13-Feb-2024 Analyzed: 14-Feb-2024 15:00						
Zinc	ND	0.800	2.00	mg/kg							U
LCS (BMB0340-BS1)					Prepared: 13-Feb-2024 Analyzed: 14-Feb-2024 15:03						
Zinc	49.0	0.800	2.00	mg/kg	50.0		98.0	80-120			

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Certified Analyses included in this Report

Analyte	Certifications
EPA 6010D in Solid	
Silver	NELAP,WADOE,DoD-ELAP
Arsenic	NELAP,WADOE,DoD-ELAP,ADEC
Barium	NELAP,WADOE,ADEC,DoD-ELAP
Cadmium	NELAP,WADOE,DoD-ELAP,ADEC
Chromium	NELAP,WADOE,DoD-ELAP,ADEC
Copper	NELAP,WADOE,DoD-ELAP
Nickel	NELAP,WADOE,DoD-ELAP,ADEC
Lead	NELAP,WADOE,DoD-ELAP,ADEC
Selenium	NELAP,WADOE,DoD-ELAP
Zinc	NELAP,WADOE,DoD-ELAP
EPA 7471B in Solid	
Mercury	WADOE,NELAP,DoD-ELAP
EPA 8260D MED in Solid	
Chloromethane	DoD-ELAP,WADOE,NELAP,ADEC
Vinyl Chloride	DoD-ELAP,WADOE,NELAP,ADEC
Bromomethane	DoD-ELAP,WADOE,NELAP,ADEC
Chloroethane	DoD-ELAP,WADOE,NELAP,ADEC
Trichlorofluoromethane	DoD-ELAP,WADOE,NELAP,ADEC
Acrolein	DoD-ELAP,WADOE,NELAP
1,1,2-Trichloro-1,2,2-Trifluoroeth	DoD-ELAP,WADOE,NELAP,ADEC
Acetone	DoD-ELAP,WADOE,NELAP
1,1-Dichloroethene	DoD-ELAP,WADOE,NELAP,ADEC
Iodomethane	DoD-ELAP,WADOE,NELAP,ADEC
Methylene Chloride	DoD-ELAP,WADOE,NELAP,ADEC
Acrylonitrile	DoD-ELAP,WADOE,NELAP
Carbon Disulfide	DoD-ELAP,WADOE,NELAP,ADEC
trans-1,2-Dichloroethene	DoD-ELAP,WADOE,NELAP,ADEC
Vinyl Acetate	DoD-ELAP,WADOE,NELAP
1,1-Dichloroethane	DoD-ELAP,WADOE,NELAP,ADEC

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

2-Butanone	DoD-ELAP,WADOE,NELAP
2,2-Dichloropropane	DoD-ELAP,WADOE,NELAP
cis-1,2-Dichloroethene	DoD-ELAP,WADOE,NELAP,ADEC
Chloroform	DoD-ELAP,WADOE,NELAP,ADEC
Bromochloromethane	DoD-ELAP,WADOE,NELAP,ADEC
1,1,1-Trichloroethane	DoD-ELAP,WADOE,NELAP,ADEC
1,1-Dichloropropene	DoD-ELAP,WADOE,NELAP,ADEC
Carbon tetrachloride	DoD-ELAP,WADOE,NELAP,ADEC
1,2-Dichloroethane	DoD-ELAP,WADOE,NELAP,ADEC
Benzene	DoD-ELAP,WADOE,NELAP,ADEC
Trichloroethene	DoD-ELAP,WADOE,NELAP,ADEC
1,2-Dichloropropane	DoD-ELAP,WADOE,NELAP,ADEC
Bromodichloromethane	DoD-ELAP,WADOE,NELAP,ADEC
Dibromomethane	DoD-ELAP,WADOE,NELAP,ADEC
2-Chloroethyl vinyl ether	DoD-ELAP
4-Methyl-2-Pentanone	DoD-ELAP,WADOE,NELAP
cis-1,3-Dichloropropene	DoD-ELAP,WADOE,NELAP,ADEC
Toluene	DoD-ELAP,WADOE,NELAP,ADEC
trans-1,3-Dichloropropene	DoD-ELAP,WADOE,NELAP,ADEC
2-Hexanone	DoD-ELAP,WADOE,NELAP
1,1,2-Trichloroethane	DoD-ELAP,WADOE,NELAP,ADEC
1,3-Dichloropropane	DoD-ELAP,WADOE,NELAP,ADEC
Tetrachloroethene	DoD-ELAP,WADOE,NELAP,ADEC
Dibromochloromethane	DoD-ELAP,WADOE,NELAP,ADEC
1,2-Dibromoethane	DoD-ELAP,WADOE,NELAP,ADEC
Chlorobenzene	DoD-ELAP,WADOE,NELAP,ADEC
Ethylbenzene	DoD-ELAP,WADOE,NELAP,ADEC
1,1,1,2-Tetrachloroethane	DoD-ELAP,WADOE,NELAP,ADEC
m,p-Xylene	DoD-ELAP,WADOE,NELAP,ADEC
o-Xylene	DoD-ELAP,WADOE,NELAP,ADEC
Styrene	DoD-ELAP,WADOE,NELAP,ADEC
Bromoform	DoD-ELAP,WADOE,NELAP,ADEC
1,1,2,2-Tetrachloroethane	DoD-ELAP,WADOE,NELAP,ADEC

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

1,2,3-Trichloropropane	DoD-ELAP,WADOE,NELAP,ADEC
trans-1,4-Dichloro 2-Butene	DoD-ELAP,WADOE
n-Propylbenzene	DoD-ELAP,WADOE,NELAP
Bromobenzene	DoD-ELAP,WADOE,NELAP,ADEC
Isopropyl Benzene	DoD-ELAP,WADOE,NELAP,ADEC
2-Chlorotoluene	DoD-ELAP,WADOE,NELAP
4-Chlorotoluene	DoD-ELAP,WADOE,NELAP
t-Butylbenzene	DoD-ELAP,WADOE,NELAP
1,3,5-Trimethylbenzene	DoD-ELAP,WADOE,NELAP
1,2,4-Trimethylbenzene	DoD-ELAP,WADOE,NELAP
s-Butylbenzene	DoD-ELAP,WADOE,NELAP
4-Isopropyl Toluene	DoD-ELAP,WADOE,NELAP
1,3-Dichlorobenzene	DoD-ELAP,WADOE,NELAP
1,4-Dichlorobenzene	DoD-ELAP,WADOE,NELAP
n-Butylbenzene	DoD-ELAP,WADOE,NELAP
1,2-Dichlorobenzene	DoD-ELAP,WADOE,NELAP
1,2-Dibromo-3-Chloropropane	DoD-ELAP,WADOE,NELAP,ADEC
1,2,4-Trichlorobenzene	DoD-ELAP,WADOE,NELAP,ADEC
Hexachloro-1,3-Butadiene	DoD-ELAP,WADOE,NELAP,ADEC
Naphthalene	DoD-ELAP,WADOE,NELAP
1,2,3-Trichlorobenzene	DoD-ELAP,WADOE,NELAP,ADEC
Dichlorodifluoromethane	DoD-ELAP,WADOE,NELAP,ADEC
Methyl tert-butyl Ether	DoD-ELAP,WADOE,NELAP

EPA 8270E-SIM in Solid

Naphthalene	ADEC,DoD-ELAP,NELAP,WADOE
1-Methylnaphthalene	ADEC,DoD-ELAP,NELAP,WADOE
Acenaphthylene	ADEC,DoD-ELAP,NELAP,WADOE
Acenaphthene	ADEC,DoD-ELAP,NELAP,WADOE
Dibenzofuran	ADEC,DoD-ELAP,NELAP
Fluorene	ADEC,DoD-ELAP,NELAP,WADOE
Phenanthrene	ADEC,DoD-ELAP,NELAP,WADOE
Anthracene	ADEC,DoD-ELAP,NELAP,WADOE
Carbazole	ADEC,DoD-ELAP,NELAP

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Pyrene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(a)anthracene	ADEC,DoD-ELAP,NELAP,WADOE
Chrysene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(b)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(k)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(j)fluoranthene	ADEC,DoD-ELAP,NELAP,WADOE
Benzo(a)pyrene	ADEC,DoD-ELAP,NELAP,WADOE
Indeno(1,2,3-cd)pyrene	ADEC,DoD-ELAP,NELAP,WADOE
Dibenzo(a,h)anthracene	ADEC,DoD-ELAP
Benzo(g,h,i)perylene	ADEC,DoD-ELAP,NELAP,WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2025
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	02/28/2025
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2024
WADOE	WA Dept of Ecology	C558	06/30/2024
WA-DW	Ecology - Drinking Water	C558	06/30/2024

Spectra Laboratories	Project: General Analyses	
2221 Ross Way	Project Number: 308130	**Reported:**
Tacoma WA, 98421	Project Manager: Randa Ross	21-Feb-2024 09:09

Notes and Definitions

*	Flagged value is not within established control limits.
B	This analyte was detected in the method blank.
D	The reported value is from a dilution
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
J	Estimated concentration value detected below the reporting limit.
L	Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to +/- RL instead of 20% RPD
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.

Environmental Services, Inc.

Environmental Consulting & Compliance

ASBESTOS INVESTIGATION

Commercial Property

5225 NE Tower Dr, Tacoma, WA 98422

Prepared For:	City of Tacoma Facilities Maintenance *Attn: Milton Eng* 747 market Street, Room 1420, Tacoma, WA 98402
Project Number:	O24-0236
Project Name/Location:	**Reservoir Lid Repair** **5225 NE Tower Dr, Tacoma, WA 98422**
Specific Building Area/Location:	Commercial Property
Work to be performed/Work	Limited "Good Faith" Asbestos Survey
Report Deliverable Date:	February 27, 2024
Company Name:	ORION Environmental Services, Inc.
Inspector Name: Certificate Number: Expiration Date:	Emily Harper BI-NES-05-03-03-10 May 3, 2024

34004 9th Avenue South, Suite A4, Federal Way, Washington 98003
Phone: (253) 952-6717 **Email:** frontdesk@oriones.net
www.oriones.net

Background: (Executive Summary):

The commercial property located at 5225 NE Tower Drive, Tacoma, WA 98422, is a collection of above ground reservoirs. The scope of the survey was limited to only building materials associated with the lid of this reservoir. Materials impacted include: tar and sealant.

Asbestos Containing Materials
No suspect domestic water or high-pressure steam ACM pipe system insulation identified in any areas inspected. No suspect ACM duct insulation identified in the areas inspected.

There are **NO** asbestos containing building materials identified during this survey.

Survey Process: (Limitations of Survey):

The survey was performed in support of future **Renovation**. This project will disturb building materials associated with renovation activities. On February 27, 2024, Orion Environmental Services conducted this survey.

Building systems inspected and suspect materials sampled are representative of materials that may be disturbed during this project. (See Table II – **Summary of Non-Asbestos Containing Building Materials**) Any material identified during the course of this project that was not identified in this survey must be inspected and sampled by an EPA Accredited Building Inspector prior to disturbance.

Other hazardous materials were not included in the scope of work during the course of this survey. Other risks that were not evaluated with this survey; Risks such as 1) toxic and hazardous substances in (or in contact with or associated with) soil or ground water; 2) risks associated with structural, electrical, or mechanical working of the building; 3) risks associated with radon gas, slope stability, building settlement, moisture, or site drainage and flooding have not been evaluated during this survey.

Findings:

There **ARE NO** asbestos containing building materials sampled within the scope of work for this project that were found to contain asbestos. Please see **Table I** – Asbestos Containing Building Materials and **Table II** – Non-Asbestos Containing Building Materials

Table I

Summary of **Asbestos Containing Building Materials** for the commercial property located 5225 NE Tower Drive, Tacoma, WA 98422

Sample Number	Material Code Description	Location	Analytical (Laboratory)Result(s)	Quantity	Friability
No Asbestos Containing Building Materials					

Table II

Summary of **Non-Asbestos Containing Building Materials** for the commercial property located at 5225 NE Tower Drive, Tacoma, WA 98422

Sample Number	Material Code Description	Material	Location	Analytical (Laboratory) Result(s)	Friability
01	MISC1	Tar	Tower 2	NAD	N/A
02	MISC2	Sealant	Tower 2	NAD	N/A
03	MISC3	Tar	Tower 1	NAD	N/A
04	MISC4	Tar	Tower 1	NAD	N/A
05	MISC5	Sealant	Tower 1	NAD	N/A
06	MISC6	Sealant	Tower 1	NAD	N/A

*NAD – No Asbestos Detected

Table II – Continued

MISC1

Description: Tar

Material Location: Tower 2

Asbestos Content: No Asbestos Detected

Estimated Quantity: N/A

Sample Number: 01

MISC2

Description: Sealant

Material Location: Tower 2

Asbestos Content: No Asbestos Detected

Estimated Quantity: N/A

Sample Number: 02

MISC3

Description: Tar

Material Location: Tower 1

Asbestos Content: No Asbestos Detected

Estimated Quantity: N/A

Sample Number: 03

MISC4

Description: Tar

Material Location: Tower 1

Asbestos Content: No Asbestos Detected

Estimated Quantity: N/A

Sample Number: 04

MISC5

Description: Sealant

Material Location: Tower 1

Asbestos Content: No Asbestos Detected

Estimated Quantity: N/A

Sample Number: 05

MISC6

Description: Sealant

Material Location: Tower 1

Asbestos Content: No Asbestos Detected

Estimated Quantity: N/A

Sample Number: 06

Recommendations: There **ARE NO** asbestos containing materials identified during this investigation.

Asbestos surveys are non-comprehensive by nature and subject to many limitations including those presented below. Our assessment has considered risks pertaining to asbestos; however, this survey is limited to only those locations sampled. This survey was not designed to identify all potential concerns or eliminate all risk associated with asbestos.

Other hazardous materials were not included in the scope of work during the course of this survey. Other risks that were not evaluated with this survey; Risks such as 1) toxic and hazardous substances in (or in contact with or associated with) soil or ground water; 2) risks associated with structural, electrical, or mechanical working of the building; 3) risks associated with radon gas, slope stability, building settlement, moisture, or site drainage and flooding have not been evaluated during this survey. No warranty, expressed or implied, is made.

Orion Environmental Services performed this survey in accordance with the generally accepted standards of care that exist in the industrial hygiene profession in Washington State at the time of this study. The asbestos survey was performed in preparation for removal of asbestos-containing materials in accordance with NESHAPS regulations.

This survey is not intended for use as plans and specifications. **Quantity estimates are for approximating** actual bid prices from contractors only, and may **not reflect** the actual final costs of asbestos and/or lead abatement. They do not include sales tax, or Owner costs such as abatement project oversight and monitoring for compliance to law and/or compliance to project plans and specifications. These estimates assume that adequate, professional plans and specifications are prepared and the abatement costs are minimized by professional project management, and that all asbestos containing materials are abated during one project by the same asbestos contractor.

Any further demolition and/or renovation activities outside of the sampling scope done for the purposes outlined in this report may require additional sampling to be performed by an PA Accredited AHERA Building Inspector.

Laboratory Results:	See Attachment A
Field Notes & Mapping:	See Attachment B
AHERA Inspector Certification:	See Attachment C

INSPECTOR ENDORSEMENT:

Emily Harper, BS
Field Technician
AHERA Building Inspector

PROJECT REVIEW:

Carole Seng, BS
Operations Manager

ANALYSIS METHOD: Polarized Light Microscopy

PARMETERS:

Puget Sound Clean Air Agency (PSCAA) and Washington State Department of Labor and Industries (L&I) regulations require an inspection of all buildings for the presence of asbestos-containing materials (ACM) prior to renovation and demolition.

ACM is identified as those building materials containing greater than one percent (>1.0%) of asbestos as verified by laboratory analysis. All building materials fabricated prior to 1980 are assumed to contain asbestos unless proven otherwise by a licensed building inspector.

According to Washington Administrative Code (WAC) 296-62-07721 Communication of Hazards to Employees, prior to the start of work, a building owner must identify the presence, location, and quantity of ACM and/or presumed ACM (PACM) in the work area. This information must be communicated to contractors bidding on work, contractors performing other work, employees and tenants in or adjacent to the work area. The Puget Sound Clean Air Agency Regulation III, Article 4 requires that an asbestos survey be conducted prior to any renovation or demolition of existing buildings. This survey was intended to meet these regulatory requirements.

Lead based coatings may have been used on and in this structure. Washington State Department of Labor and Industries (L&I) regulation WAC 296-155-176 Lead, requires that workers be protected from exposure during the demolition and removal of materials that contain lead in ***any*** detectable amount.

DEFINITIONS: ACM is subdivided into three types:

(1) Surfacing Materials: These are defined as those materials that are sprayed-on, troweled-on or otherwise applied to surfaces including, but not limited to, lath and plaster, acoustical plaster on ceilings, paints, fireproofing materials on structural members or other materials on surfaces applied for decorative purposes.

(2) Thermal System Insulation (TSI): These materials are defined as those applied to pipes, fillings, boilers, tanks, ducts or other structural components to prevent heat loss or gain.

(3) Miscellaneous Materials: All other building materials that may be ACM but not surfacing materials or TSI fall into this category.

LIMITATIONS: During renovation it is possible that additional suspect ACM may be discovered within assemblies and systems that were not accessible at the time of this survey. Should any such suspect material be discovered, an AHERA-certified building inspector will have to sample and test the materials to provide evidence that they are non-asbestos containing.

Orion Environmental Services is neither responsible for the classification of materials that were not identifiable with reasonable diligence at the time of this inspection, nor for the identification of materials beyond the scope for this project as we understood it at the time of this survey.

Disclaimer

This report and its contents are limited to the scope and activities performed at the subject property as described. We represent that our services were performed within the limits prescribed by applicable regulations and in a manner consistent with the level of and skill ordinarily exercised by other professional consultants under similar circumstances. No other representation is made to the client, expressed or implied, and no warranty or guarantee is included or intended.

Attachment A

ORION Environmental Services
34004 Ninth Avenue South, Suite A12, Federal Way, WA 98003
Phone: (253) 952-6717 • Fax: (253) 927-4714
Email: info@oriones.net • Web: www.oriones.net
WBE W2F9219763

Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client: City of Tacoma-Facilities Maint.
Address: 747 Market Street Room 1420, Tacoma, WA 98402
Attention: Milton Eng
Project Name: Reservoir Lid Repair
Project Number: O24-0236

Rpt. Date: 2/27/2024
Page: 1 of 1
Invoice: 241989
Date Rcvd: 2/27/2024

Client Sample ID	Orion Sample ID	Material Description	Sample Treatment	% Asbestos Containing Material	Asbestos Type	Other Fibers
1	20240227 -230	Tar	crush	ND		cellulose
2	20240227 -231	Sealant		ND		cellulose, man-made fibers
3	20240227 -232	Tar	crush	ND		cellulose
4	20240227 -233	Tar	crush	ND		cellulose
5	20240227 -234	Sealant		ND		cellulose, man-made fibers
6	20240227 -235	Sealant		ND		cellulose, man-made fibers

Dup: Laboratory QA/QC Duplicate; M; Mastic [(a), (b), (c), etc.]: Sample layers numbered from front to back.
Comments: For layered samples, each component has been analyzed separately. ND means non-detect for asbestos fibers by EPA Method 600/R-98/116.Disclaimers: PLM has been known to miss asbestos in a small percentage of samples that contain asbestos. Thus, these laboratory results represent due diligence, however negative or <1 % PLM results can not be guaranteed. Per EPA guidelines samples will be archived for 30 days then will be disposed of. This report may only be reproduced in full with written approval of ORION Environmental Services.

Analyzed By (Print)	Date	Reviewed By (Print)	Date
Alexis Heath	2/27/2024	Carole Seng	2/27/2024
Analyzed By (Signature)	Time	Reviewed By (Signature)	Time

Attachment B

NOW ENVIRONMENTAL SERVICES

SAMPLE CUSTODY FORM 241989 PROJECT NUMBER 024-036

CLIENT: City of Tacoma Facilities	SITE: Resovoir Ld repair	RELINQUISHED BY: Brady Mantz
ADDRESS:	ADDRESS: 5225 NE Tower Dr. Tacoma Wa 98422	DATE / TIME: 02/27/2024 11am
TELEPHONE:	INSPECTOR: Emily Harper	RECEIVED BY:
EMAIL:	DATE SAMPLED: 2/27/2024	DATE / TIME:

20240227

SAMPLE NO.	LAB NO.	MATERIAL DESCRIPTION	MATERIAL ID	LAYER AND SUBSTRATE	LOCATION OF MATERIAL	QTY.	TREAT	%	TYPE	OTHER FIBERS
01	230	Sealant	MISC1	concrete	Tower 2					
02	231	Tar	MISC2	concrete	"					
03	232	Tar	MISC3	"	Tower 1					
04	233	Tar	MISC4	"	"					
05	234	Sealant	MISC5	" B/ Metal	Fixture					
06	235	"	MISC6	Concrete	Tower 1					

Attachment C

AHERA

BUILDING INSPECTOR

CERTIFICATE

This is to certify that

Emily Harper

has attended and satisfactorily completed all requirements to maintain accreditation as an AHERA Building Inspector in accordance with the Toxic Substance Control Act Title (Section 206) and 40 CFR 763.

Accreditation No. BI-NES-05-03-03-10

Course Date: May 1st - May 3rd, 2023

Valid through: May 3rd, 2024

NOW Environmental Services, Inc.
34004 – 9th Avenue South, Suite # 12
Federal Way, Washington 98003
(253) 927-5233

SECTION 03 93 50

REPAIR OF DEFECTIVE CONCRETE

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Repair of defective concrete.

1.02 REFERENCES

A. American Concrete Institute (ACI):
   1. ACI 117 Standard Tolerances for Concrete Construction and Materials
   2. ACI 301 Specifications for Structural Concrete for Buildings
   3. ACI 318 Building Code Requirements for Structural Concrete
   4. ACI 347 Guide to Formwork for Concrete
   5. ACI 350 Environmental Engineering Concrete Structures

B. ASTM International (ASTM) Standard Specification or Test Method:
   1. ASTM C881 Epoxy-Resin-Base Bonding Systems for Concrete.
   2. ASTM C882 Bond Strength of Epoxy-Resin Systems Used with Concrete By Slant Shear.
   3. ASTM C883 Effective Shrinkage of Epoxy-Resin Systems Used with Concrete.
   4. ASTM D570 Water Absorption of Plastics.
   5. ASTM D638 Tensile Properties of Plastics.
   6. ASTM D695 Compressive Properties of Rigid Plastics.
   7. ASTM D732 Shear Strength of Plastics by Punch Tool.
   8. ASTM D790 Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

C. NSF/ANSI 61 – Drinking Water System Components – Health Effects

1.03 SUBMITTALS

A. Submit in accordance with General Structural Notes.

B. Product Data:
   1. When stains, rust, efflorescence, and surface deposits must be removed, submit the proposed materials and manufacturer’s instructions for removal.
   2. When crack repair is required, submit the proposed materials and manufacturer’s method of repair.

C. Shop Drawings:
   1. Repair Plan: After defects are identified and investigated, prepare and submit a repair plan that includes a listing of repairs to be made and the detailed surface preparation, products, methods, curing and finishing requirements of repair to be used at each location.
   2. Submit manufacturer’s technical literature on products proposed for use. Include the manufacturer’s installation and/or application instructions.

D. Samples: Submit any item of Product Data not fully assembled by a single manufacturer.

1.04 QUALITY ASSURANCE

A. No existing structure or concrete shall be shifted, cut, removed, or otherwise altered until authorization is given by the Owner and Engineer of Record.

B. When removing materials or portions of existing structures and when making openings in existing structures, take all precautions and erect all necessary barriers, shoring and bracing and other protective devices to prevent damage to the structures beyond the limits necessary for the new work, protect personnel, control dust and to prevent damage to the structures or contents by falling or flying debris. Unless otherwise permitted, shown or specified, sawing and/or line drilling will be required in cutting existing concrete.

C. Manufacturer's Qualifications: Minimum of ten years' experience in the manufacture of the products specified and an ongoing program of training, certifying and technically supporting the Contractor's personnel.

D. Contractor Qualifications: Complete a program of instruction in the application of the approved manufacturer's material specified in this Section and provide certification from the manufacturer attesting to their training and status as an approved applicator.

E. Certifications:
   1. Certification that the materials meet the requirements of this Section and have the manufacturer's current printed literature on the specified product.
   2. Certification that materials to be applied to concrete surfaces in contact with potable water or water to be treated for potable use shall be approved by NSF/ANSI 61 – Drinking Water System Components – Health Effects for use in contact with potable water after 30 days.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver the specified products in original, unopened containers displaying the manufacturer's name, labels, product identification and batch numbers.

B. Store and condition products as recommended by the manufacturer.

PART 2 - PRODUCTS

2.01 GENERAL

A. Provide materials to be applied to concrete surfaces in contact with potable water certified by NSF 61 for use in contact with potable water.

2.02 CEMENT REPAIR MORTAR

A. Cement repair mortar may be either site-mixed portland-cement repair mortar for small repairs. or commercial cement repair mortar patching products for larger areas.

B. Site Mixed Portland-Cement Repair Mortar:
   1. Mix repair mortar using the same materials as concrete to be patched with no coarse aggregate. Do not use more than one-part portland cement to two parts sand by damp loose volume.
   2. For repairs in exposed concrete, make trial batches and check color compatibility of repair material with surrounding concrete. Prepare several

trial batches and make test samples in an inconspicuous location for review. When the repair is too dark, substitute white portland cement for a part of the gray cement to produce a color and texture closely matching the surrounding concrete.

3. Use a repair mortar at a stiff consistency with no more mixing water than is necessary for handling and placing. Mix the repair mortar and turn the mortar frequently with a trowel without adding water. Use mortar at a stiff consistency.
4. For concrete removal resulting in cavities exceeding 3 inches in depth and 1 square foot in area, pack the void with a mixture of cement, concrete sand and pea gravel proportioned as follows:

Material	Volumes	Weights
Cement	1.0	1.0
Sand	1.0	1.0
Pea Gravel	1.5	1.5

C. Commercial Cement Repair Mortar:
1. Portland-cement mortar modified with a latex bonding agent conforming to ASTM C1059 Type II.
2. Epoxy mortars and epoxy compounds that are moisture-insensitive during application and that, after curing, embody an epoxy binder conforming to ASTM C881 Type III. The type, grade, and class shall be appropriate for the application as specified in ASTM C881.
3. Shrinkage-compensating or non-shrink portland-cement grout conforming to ASTM C1107.
4. Packaged dry concrete repair materials conforming to ASTM C928.
5. Products: Poly-Patch by Euclid Chemical Company; Emaco R310 by BASF Chemical Company; Sikatop 122 Plus by Sika Chemical Corporation or approved equal only if approved by the Engineer for use and for color match.

D. Provide cement repair mortar with strength and modulus of elasticity compatible with the parent concrete.

2.03 EPOXY BONDING AGENT

A. General: Two-component, solvent-free, asbestos-free moisture insensitive epoxy resin material used to bond plastic concrete to hardened concrete and complying with the requirements of ASTM C881, Type II and the additional requirements specified herein.

B. Bonding Hardened Concrete to Hardened Concrete
1. ASTM C881 Type I.
2. Sikadur 32 Hi-Mod by Sika; Rezi-Weld by W.R. Meadows; or equal.

C. Bonding Freshly Mixed Concrete to Hardened Concrete
1. ASTM C881 Type V.
2. Sikadur 32 Hi-Mod by Sika; Rezi-Weld by W.R. Meadows; MasterEmaco ADH 327 RS by Master Builders; or equal.

D. Provide grey colored epoxy bonding agent.

E. Surface Orientation
1. Horizontal Surfaces: Grade 1 or Grade 2.
2. Vertical Surfaces: Grade 3.

F. Temperature
   1. Below 40°F: Class A. Do not place in temperatures lower than allowed by manufacturer.
   2. Between 40 and 60°F: Class B.
   3. Above 60°F: Class C. Do not place in temperatures higher than allowed by manufacturer.

G. NSF/ANSI Standard 61 approved for potable water contact.

2.04 EPOXY PASTE

A. Two-component, solvent-free, asbestos free, moisture insensitive epoxy resin material used to bond dissimilar materials to concrete and shall comply with the requirements of ASTM C881, Type I, Grade 3. It may also be used to patch existing surfaces where the glue line is 1/8-inch or less.

B. Provide grey colored epoxy paste.

C. Products: Sikadur 31 Hi-mod Gel by Sika Corporation, Lyndhurst, NJ; Concresive Paste LPL by BASF, Shakopee, MN; or approved equal.

2.05 NON-SHRINK GROUT AND NON-SHRINK EPOXY GROUT

A. Non-shrink Cementitious Grout (Non-shrink Grout):
   1. Non-shrink cementitious grouts shall meet or exceed the requirements of ASTM C1107, Grades B or C and CRD C-621. Grouts shall be portland cement based, contain a pre-proportioned blend of selected aggregates and shrinkage compensating agents and shall require only the addition of water. Non-shrink cementitious grouts shall not contain expansive cement or metallic particles. The grouts shall exhibit no shrinkage when tested in conformity with ASTM C827.
      a. General purpose non-shrink cementitious grout shall conform to the standards stated above and shall be SikaGrout 212 by Sika Corp.; Euco NS by The Euclid Chemical Co.; Five Star Grout by Five Star Products, Inc.; or approved equal.
      b. Flowable (Precision) non-shrink cementitious grout shall conform to the standards stated above and shall be Hi-Flow Grout by the Euclid Chemical Co.; SikaGrout 212 by Sika Corp.; Five Star Grout by Five Star Products Inc.; or approved equal.

B. Non-shrink Epoxy Grout:
   1. Non-shrink epoxy-based grout shall be a pre-proportioned, three-component, 100% solids system consisting of epoxy resin, hardener, and blended aggregate. It shall have a compressive strength of 14,000 psi in 7 days when tested in conformity with ASTM D695 and have a maximum thermal expansion of 30 x 10-6-inch per inch per degree F when tested in conformity with ASTM C531. The grout shall be Five Star HP Epoxy Grout by Five Star Products.; Sikadur 42 Grout-Pak by Sika Corp.; E3-G Epoxy Grout by the Euclid Chemical Co.; or approved equal.

C. Water:
   1. Potable water, free from injurious amounts of oil, acid, alkali, organic matter, or other deleterious substances.

D. Like materials in areas of common viewing shall be the products of one manufacturer or supplier in order to provide standardization of appearance.

2.06 STRUCTURAL CRACK REPAIR EPOXY ADHESIVE

A. Two-component, solvent-free, moisture insensitive epoxy resin material suitable for crack grouting by injection or gravity feed. Formulate for the specific size of opening or crack being repaired.

B. For surfaces containing potable water or water to be treated for potable use that are repaired by the epoxy adhesive injection system, Provide an acceptable epoxy coating approved by the NSF and FDA for use in contact with potable water.

C. For standard applications: Sikadur 35 Hi-Mod LV by Sika Corporation, Lyndhurst, NJ; SCB Concresive 1380 by BASF, Shakopee, MN; or approved equal.

D. For applications thinner than allowed by Hi-mod LV: Sikadur 35 Hi-Mod LV LPL by Sika Corporation, Lyndhurst, NJ; SCB Concresive 1360 by BASF, Shakopee, MN; or approved equal.

E. For potable-water applications: epoxy coatings used to cover crack repairs must be approved by both NSF and FDA for use in contact with potable water.

2.07 FLEXIBLE CRACK REPAIR EXPANDING POLYURETHANE CHEMICAL GROUT

A. High solids, hydrophobic polyurethane, liquid chemical grout suitable for pumping into cracks and voids (honeycombed) to stop water infiltration. Formulate for the specific size of opening or crack being injected. One component product with accelerator. Permanently flexible product.

B. For concrete surfaces containing potable water or water to be treated for potable use Provide a polyurethane expanding chemical grout system with an acceptable polyurethane chemical grout approved by the NSF/ANSI 61 for use in contact with potable water.

C. Products: SikaFix HH by Sika Corporation, Lyndhurst, NJ; Concresive 1230 IUG by BASF, Shakopee, MN; or approved equal.

2.08 ADHESIVE ANCHORS

A. See General Structural Notes, Drawing S-01.

PART 3 - EXECUTION

3.01 GENERAL

A. Inspect concrete surfaces immediately after carefully removing forms. Repair tie holes and surface defects immediately after formwork removal. Defective work includes concrete out of line, level or plumb; cracks; poor joints; rock pockets; honeycomb; voids; spalls and exposed reinforcing. Patch minor defects, including form tie holes, before the concrete is thoroughly dry. Do not interrupt the curing program. Ensure that repairs match the existing surface for color and texture.

B. Large areas involving voids or rock pockets extending through the section may be cause for rejection of the work. If acceptable repairs can be made without adversely affecting the structural integrity of the work, cut out the section and either dry pack, or reform and re-pour to match the adjacent concrete. Do not cut the reinforcing, but cut keyways into the adjacent sound concrete to securely fasten the patch to the original work.

C. Cut, repair, remove, or otherwise modify parts of the existing structures or appurtenances, as indicated on the Drawings, specified, or necessary to complete the work. Finishes, joints, reinforcements, sealants, etc, are specified in their respective sections.

D. Store, mix and apply commercial products in strict compliance with the manufacturer's recommendations.

E. Preserve the isolation between components on either side of the joint in cases where concrete is repaired in the vicinity of an expansion joint or control joint.

F. When drilling holes for dowels/bolts, stop drilling if rebar is encountered. As approved by the Engineer, relocate the hole to avoid rebar. Do not cut rebar without prior approval by the Engineer. Identify rebar at all locations where possible, prior to drilling using nondestructive rebar locator equipment so that drill hole locations may be adjusted to avoid rebar interference.

G. Keep rebar a minimum of 1-inch away from all embedded metallic piping, wall thimbles, spools, sleeves, and similar metals to avoid the creation of an electrically continuous path.

H. Remove stains, rust, efflorescence, and surface deposits.

3.02 CONCRETE REMOVAL

A. Line drilling at limits of removal followed by chipping or jack-hammering, concrete designated to be removed to specific limits as directed by the Engineer. Proceed carefully to avoid damage to reinforcement. When chipping is necessary, leave chipped edges perpendicular to the surface or slightly undercut. Do not feather edges. Remove concrete in such a manner that surrounding concrete and existing reinforcing to be left in place and existing in place equipment are not damaged. Only sawcut at limits of concrete to be removed after obtaining written approval from the Engineer.

B. Apply a coating or surface treatment of epoxy paste to a thickness of ¼-inch where existing reinforcing is exposed due to saw cutting/core drilling and no new material is to be placed on the cut surface.

C. Saw cut to a 1-inch depth on exposed surfaces of the existing concrete where the joint between new concrete or grout and existing concrete will be exposed in the finished work.

D. Repair concrete specified to be left in place in accordance with repair notes above.

3.03 CONCRETE SURFACE PREPARATION AND REPAIR

A. Prepare connection surfaces as specified below for concrete areas requiring patching, repairs or modification as directed by the Engineer.

B. Remove all deteriorated materials, dirt, oil, grease, and all other bond inhibiting materials from the surface by mechanical or physical means, i.e. – water blasting, chipping, etc. Uniformly roughen the concrete surface to approximately ¼-inch amplitude with pointed chipping tools. Thoroughly clean surface of loose or weakened material by sandblasting or air blasting. Irregular voids or surface stones need not be removed if they are sound, free of laitance, and firmly embedded into parent concrete.

C. If honeycomb exists around reinforcement or if reinforcing steel is exposed, it must be mechanically cleaned to remove all loose material, contaminants, rust, etc. If half of the diameter of the reinforcing steel is exposed, chip out behind the steel. The distance chipped behind the steel shall be a minimum of 1-inch. Reinforcing to be incorporated in new concrete shall not be damaged during the removal operation.

D. The following are specific concrete surface preparation and repair "methods" to be used where directed by the Engineer.
   1. Method A: After the existing concrete surface at connection has been roughened and cleaned, thoroughly saturate with water and maintain saturation for a period of at least 12 hours. Dampen the area to be patched, plus another 6 inches around the patch area perimeter. Prepare bonding grout by mixing approximately one part cement and one part fine sand with water to the consistency of thick cream. Thoroughly brush bonding grout into the surface. When the bonding grout begins to lose water sheen, apply cement repair mortar and thoroughly consolidate mortar into place. Strike off mortar, leaving the patch slightly higher than the surrounding surface to permit initial shrinkage. Leave the patch undisturbed for 1 hour before finishing. Keep the patch damp for 7 days.
   2. Method B: After the existing concrete surface has been roughened and cleaned, apply epoxy bonding agent at connection surface. Comply with the manufacturer’s recommendations for the field preparation and application of the epoxy bonding agent. Place new concrete or grout mixture within time constraints recommended by the manufacturer to ensure bond. Thicker repairs may require build-up in successive 1-1/2-inch layers on successive days. Form surfaces as required to prevent sagging.
   3. Method C: Install adhesive anchors or dowels; strictly comply with the manufacturer’s recommendations.
   4. Method D: Combination of Methods B and C.

3.04 CEMENT GROUTS AND NON-SHRINK CEMENTITIOUS GROUTS

A. Mix in accordance with manufacturer's recommendations. Do not add cement, sand, pea gravel or admixtures without prior approval by the Owner’s Representative.

B. Avoid mixing by hand. Mixing in a mortar mixer (with moving blades) is required if recommended by the manufacturer. Pre-wet the mixer and empty excess water. Add premeasured amount of water for mixing, followed by the grout. Begin with the minimum amount of water recommended by the manufacturer and then add the minimum additional water required to obtain workability. Do not exceed the manufacturer's maximum recommended water content.

C. Placements greater than 3-inch in depth shall include the addition of clean, washed pea gravel to the grout mix when approved by the manufacturer. Comply with the manufacturer's recommendations for the size and amount of aggregate to be added.

D. Place grout into the designated areas in a manner which will avoid segregation or entrapment of air. Do not vibrate grout to release air or to consolidate the material. Placement shall proceed in a manner which will ensure the filling of all spaces and provide full contact between the grout and adjoining surfaces. Provide grout holes as necessary.

E. Place grout rapidly and continuously to avoid cold joints. Do not place cement grouts in layers. Do not add additional water to the mix (retemper) after initial stiffening.

F. Just before the grout reaches its final set, cut back the grout to the substrate at a 45-degree angle from the lower edge of bearing plate unless otherwise approved by the City Representative. Finish this surface with a wood float (brush) finish.

G. Begin curing immediately after form removal, cutback, and finishing. Keep grout moist and within its recommended placement temperature range for at least 24 hours after placement or longer if recommended by the manufacturer. Saturate the grout surface by use of wet burlap, soaker hoses, ponding or other approved means. Provide sunshades as necessary. If drying winds inhibit the ability of a given curing method to keep grout moist, erect wind breaks until wind is no longer a problem or curing is finished.

3.05 INSTALLATION – NON-SHRINK EPOXY GROUTS

A. Mix in accordance with the procedures recommended by the manufacturer. Do not vary the ratio of components or add solvent to change the consistency of the grout mix. Do not overmix. Mix full batches only to maintain proper proportions of resin, hardener and aggregate.

B. Monitor ambient weather conditions and contact the grout manufacturer for special placement procedures to be used for temperatures below 60° or above 90° F.

C. Place grout into the designated areas in a manner which will avoid trapping air. Placement methods shall ensure the filling of all spaces and provide full contact between the grout and adjoining surfaces. Provide grout holes as necessary.

D. Minimize "shoulder" length (extension of grout horizontally beyond base plate). In no case shall the shoulder length of the grout be greater than the grout thickness.

E. Finish grout by puddling to cover all aggregate and provide a smooth finish. Break bubbles and smooth the top surface of the grout in conformity with the manufacturer's recommendations.

F. Epoxy grouts are self curing and do not require the application of water. Maintain the formed grout within its recommended placement temperature range for at least 24 hours after placing, or longer if recommended by the manufacturer.

3.06 CRACK REPAIR

A. Repair cracks in liquid containing concrete structures with widths greater than 0.010 inches and cracks 1/32-inch or wider in other surfaces. Repair leaking cracks.

B. Repair cracks on horizontal surfaces by gravity feeding crack repair epoxy adhesive into cracks per manufacturer’s recommendations. Pressure inject if cracks are less than 1/16-inch in width.

C. Repair cracks on vertical surfaces by pressure injecting crack repair epoxy adhesive or expanding polyurethane chemical grout through valves sealed to surface with epoxy paste per manufacturer’s recommendations.

D. For structural nonmoving cracks that require structural bonding of cracked surfaces, use epoxy adhesive injection materials and methods.

E. For leaking cracks and cracks that have movement, use expanding polyurethane chemical grouts that have been premixed and injected into the structure in accordance with manufacturers' recommendations

F. Complete crack repairs before conducting the hydrostatic leakage test.

3.07 CONCRETE FINISHING

A. Refer to General Structural Notes, Drawing S-01.

3.08 FIELD QUALITY CONTROL

A. Concrete Curing:
   1. Verify procedures and equipment is available for controlling concrete temperature during hot and cold weather conditions.
   2. Verify actual time of application of evaporation retardant, fog spray and curing materials for each placement.
   3. For cold weather applications, record at least twice a day for the six days of special concrete curing and protecting procedures the temperature of the concrete at multiple locations (including surfaces, edges and corners), the daily maximum and minimum concrete temperature, location where temperature was taken, air temperature, weather conditions, and other special conditions. Measure concrete temperature in accordance with ACI 306.

3.09 CLEANUP

A. Upon completion of all work performed under this Section, remove from the site all excess materials, storage facilities and temporary facilities. Smooth and clean of debris all areas that were used or occupied during concrete construction operations and leave in first-class condition.

END OF SECTION

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SECTION 07 55 56

CEMENT BASED WATERPROOFING

PART 1 - GENERAL

1.01 SUMMARY

A. Work Included in this Section: Furnish and install a complete cement based waterproofing system used to coat exterior roofs of concrete water tanks that is compatible with, and especially designed for use in, potable water treatment facilities where noted or shown.

1.02 REFERENCES

A. The following standards and publications are applicable to the extent referenced in the text.

B. ASTM International (ASTM):
   1. C 109 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
   2. C 348 Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars
   3. D4259 Standard Practice for Preparation of Concrete by Abrasion Prior to Coating Application
   4. D4263 Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method
   5. E 514 Standard Test Method for Water Penetration and Leakage Through Masonry

C. International Concrete Repair Institute (ICRI):
   1. ICRI 03732 Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays

1.03 SUBMITTALS

A. Shop Drawings: Submit product data and information describing all products proposed for use including materials test data, for approval prior to installation.

B. Physical product samples of the system applied to concrete test pieces.

C. Certification of applicator licensing by the material manufacturer.

D. Manufacturer's review of specified system including details and all conditions, written comments, and written agreement that all aspects of specified system are compatible with the intended use and that specified system will perform its function. Include any recommended changes to installation procedures in Part 3 and reasons for the changes.

1.04 QUALITY ASSURANCE

A. All materials supplied under this Section shall be supplied by a single manufacturer.

B. Applicator shall be licensed by the material manufacturer and shall have a minimum of 5 years’ experience in application of this type of coating.

C. Cementitious Coating Mock-Up: Prior to commencing cementitious coating application, prepare a minimum 6’-0” x 6’-0” full scale, reference mock-up of complete cementitious coating system for approval by Owner. Said reference mock-up shall be constructed in location designated by Owner, using the same equipment, tools and methods for installing all materials as will be used for the remaining work to be performed.

1.05 DELIVERY AND STORAGE

A. Deliver in original unopened containers with manufacturer's label indicating the product, manufacture date, and lot number.

B. Store at recommended temperature.

1.06 ENVIRONMENTAL REQUIREMENTS

A. Do not apply in wet weather or when rain is imminent (expected within 8 hours). Do not apply Finish Coat to frozen or frost filled substrates.

B. Material shall be stored at temperatures between 50 and 90 deg F. Protect from freezing.

C. Do not apply when the surface is below 50 degrees F and a minimum of 5 degrees F above dew point, or above 90 degrees F. Consult manufacturer for application instructions if the ambient or surface temperature is below 50 degrees F.

D. Do not apply to porous substrates when substrate or ambient temperatures are rising.

E. Do not apply to porous substrates when substrate is in direct sunlight.

F. Do not apply over substrates that are frozen or contain frost.

PART 2 - PRODUCTS

2.01 GENERAL

A. Acceptable Systems Include:
   1. Cement-based polymer-modified barrier coating system under a single product manufacturer.
      a. Primer: Liquid latex bonding agent for cement-based repair mortars and concrete
      b. Crack repair and sloping mortars as applicable.
      c. Horizontal repair mortars (leveling) as applicable.
      d. Base Coat
      e. Includes high build, water-based, acrylic finish coat membrane system for potable water treatment facilities.
   2. All products used shall be acceptable for use with potable water.
   3. Manufacturers: TAMMSCOAT by Euclid Chemical, equivalent products by Rhino Linings Corporation, or equal.

2.02 SYSTEM COMPONENTS

A. Repair and Topping Primer Coat: Compatible with manufacturer's barrier coat material and base coat material. Eucoweld 2.0 or equal.

B. Repair and Sloping Mortar: Single-component, quick-setting, low shrinkage repair mortar. EucoRepair V100 or equal.

C. Horizontal Repair (Leveling) Mortar: Single-component, low shrinkage, high early strength mortar. Versaspeed LS100 or equal.

D. Sealant Backer Rod: Inorganic cellular foam.

E. Sealant: Low modulus unmodified polyurethane.

F. Flashing: 0.02-inch-thick, fluid applied, non-flowing coating.

G. Flashing Reinforcement: Woven uncoated fiberglass mesh.

H. Finish Primer: Tamms H/P Primer or equal.

I. Base Coat:
   1. Material: Cement-based, polymer-modified coating.
      a. Euclid Chemical Company Tammoseal modified with Akro 7T.
      b. Color: Provide contrasting color to Finish Coat color to ensure proper coverage.
   2. Compressive Strength minimum per ASTM C 109
      a. 7 days 4,500 psi
      b. 28 days 6,400 psi
   3. Flexural Strength minimum per ASTM C 348
      a. 7 days 350 psi
      b. 28 days 810 psi
   4. Tensile Strength
      a. 7 days 330 psi
      b. 28 days 390 psi
   5. Absorption
      a. 24 Hour Soak 4.4%
      b. 5 Hour Boil 3.9%
   6. Freeze Thaw Resistance
      a. Loss at 50 cycles 1.2%
   7. Water Permeance (after coating)
      a. Extent of damp area: 72 hours 0.0%
      b. Maximum Leakage: 1 hour None
      c. Leakage Rate (ml/hr): None

J. Finish Coat: Water-based, protective acrylic coating. Tammscoat or equal.
   1. Solids (by weight) 65%-68% (fine) 55%-60% (smooth)
   2. VOC Content: < 50 g/L
   3. Freeze-Thaw Resistance (@ 30 days) No disbondment
   4. UV & Condensation Exposure
      a. Blistering @ 2,000 hr None
      b. Cracking @ 2,000 hr None
      c. Delamination @ 2,000 hr None
   5. Color: Grey
   6. Finish Texture: Fine (sanded).

PART 3 - EXECUTION

3.01 INSPECTION

A. Inspect substrate and adjacent areas where special coating will be applied. Notify the Engineer of conditions that would adversely affect the application or subsequent utilization of the special coating. Do not proceed with application until unsatisfactory conditions are corrected.

3.02 PROTECTION AND WARNING

A. Protect adjacent work and surrounding areas from contact with special coating.

B. Warning: Apply membrane waterproofing materials only where adequate ventilation is provided. Provide all necessary safeguards, breathing equipment and protective clothing required to protect workers.

3.03 SURFACE PREPARATION FOR CONCRETE TANKS AND RESERVOIRS

A. Prepare surface in accordance with manufacturer's instructions.

B. Provide clean, dry, and structurally sound concrete surface.

C. Existing Concrete: Remove existing coating in its entirety.

D. Abrasive Blasting:
   1. Prepare concrete surface to receive special coating by abrasive blasting.
   2. Remove dirt, soil, grease, oil, paint, coatings, form release agents, curing compounds, laitance, loose material, unsound concrete, and other foreign materials that would inhibit performance of special coating.
   3. Obtain a firm, sound concrete surface in which bug holes are fully opened or repaired.
   4. Remove sharp concrete edges and projections.
   5. Perform abrasive blasting in accordance with ASTM D4259.
   6. Receive approval by Engineer of blasting media.
   7. Maintain air supply for abrasive blasting free of oil and water.
   8. Expose aggregate to obtain a profile of ICRI CSP 4 to 6 in accordance with ICRI 03732.

E. Repair concrete surface to be free of holes. Fully open bug holes before repair. Repair defects in the concrete surface, such as bug holes, air pockets, and honeycomb by filling and smoothing off with patching material, epoxy patching compound, or grout. Abrasive blast repaired surfaces.

F. Ensure substrate is clean and dry in accordance with manufacturer's instructions. Remove surface laitance from concrete surface to expose aggregate to obtain a profile of ICRI CSP 4 to 6 in accordance with ICRI 03732.

G. Repair cracks in concrete surface with material suitable for type and width of crack, compatible with substrate and special coating, and approved by the coating manufacturer and Engineer.

H. Verify that curing method used for concrete is compatible with elastomeric membrane waterproofing system.

I. Moisture Tests: Do not apply primer or special coating to concrete surface unless two or more of the flowing moisture tests confirm appropriate moisture levels for properly prepared substrates:
   1. Plastic Sheet Method (ASTM D4263): Pass/Fail.

2. Relative Humidity Test: Less than 75 percent relative humidity at 70 degrees .
3. Calcium Chloride Test: Less than 5 pounds per 1,000 square feet per 24 hours.
4. Radio Frequency Test: Less than 5 percent moisture.

3.04 FLASHING

A. Provide fluid applied integral flashings as per manufacturer's recommended detail at all locations where a horizontal surface abuts a vertical surface. Fluid applied flashings shall be installed at a dry film thickness of 20 mils (.02 inch) min. Use non-flowing type coating.

B. At projections through coatings such as pipes, brackets, rigidly connected wall/slab intersections and similar locations of potential slight movement provide a 1/2 inch bead of sealant. Tool the sealant to form a cove, and allow it to cure before over-coating.

3.05 CEMENTITIOUS COATING MIXING AND APPLICATION

A. Dilute manufacturer’s recommended liquid polymer additive as noted on manufacturer’s literature and mix with Cementitious Coating per manufacturer’s published instructions.

B. Cementitious Coating shall be mechanically mixed using a slow speed motor and mixing blade to thoroughly disperse the ingredients. Do not aerate the mix.

C. Stop mixing and allow the mixture to stiffen for ten minutes. Re-mix to achieve proper consistency. Use mixed Cementitious Coating within one hour of mixing.

D. Hand Brush Application: Apply Cementitious Coating at manufacturer’s published coverage rates using a 6 in. (15 cm) masonry brush. Load bristles with material and apply a heavy coat using long, smooth horizontal strokes. Apply sufficient material to fill all voids. Final strokes should all be in one direction to produce an even texture and finish. Allow first coat to dry for 12 to 24 hours before applying a second coat. Final strokes for the second coat shall be perpendicular to the final strokes of the first coat.

E. Push Broom Application: Use a 5-gal (18.9 L) pail or wide mouth tub to hold Cementitious Coating. Dip a 10 in. (25 cm) tampico-bristle push broom into the TAMOSEAL and mix just enough to load the bristles. Apply a heavy coat at manufacturer’s published coverage rates using long, even, horizontal strokes. Apply sufficient material to fill all voids. Lift the brush at the end of each stroke. Final strokes should all be in one direction to produce an even texture and finish. Do not overbrush. Allow first coat to dry for 12 to 24 hours before applying a finish coat. Final strokes for the second coat shall be perpendicular to the final strokes of the first coat.

F. Spray Application: Use heavy-duty spray equipment capable of spraying cement coatings or mastics. Contact manufacturer for recommendations.

3.06 BASE COAT

A. Apply base coating material at manufacturer’s stated coverage rate per gallon. Extend coating over all fluid applied flashings and detail coatings.

B. Use self-leveling type base coat on level surfaces and on slopes up to 5%. Use non-flowing type base coat on slopes over 5% and on vertical surfaces.

C. Allow to cure for 16 hours minimum. Temperatures less than 75°F and relative humidity less than 50% extend curing time.

3.07 TOP COAT APPLICATION

Tammscoat Fine	**1st Coat**	**2nd Coat**
Porous Surfaces	50 to 65 sq. ft. per gallon	60 to 75 sq. ft. per gallon

A. Apply 2 coats per manufacturer's recommendations utilizing spray equipment recommended by manufacturer or brushes and rollers (1 ½" nap) designed for latex paints. Where brushes and rollers are used, final finish strokes shall be in one direction only.
   1. Apply within manufacturer's published coverage rates.
   2. First Coat: 50 to 65 square feet per gallon
   3. Second Coat: 60 to 75 square feet per gallon
   4. Actual coverage will vary dependent on surface temperature, porosity, and texture will be determined at time of mock-up.

3.08 CURING

A. Cure special coating in accordance with manufacturer's instructions.

B. Curing Time: The coating system shall be allowed to cure for 72 hours or more if specified by the manufacturer before allowing any water, equipment, or foot traffic in contact with the waterproof membrane. Allow sufficient time for solvents to evaporate from the cured special coating before placing into service.

3.09 PROTECTION

A. After completion of curing, final inspection and acceptance of the waterproof membrane, the exposed surfaces shall be protected with plywood sheeting or approved alternate covering in all areas where Contractor has other work to accomplish.

3.10 FIELD QUALITY CONTROL

A. Provide inspection services by an independent inspection firm throughout all phases of surface preparation, application, and curing of the special coating.

3.11 CLEANING

A. Remove and dispose of all temporary materials used to protect adjacent work and surrounding areas.

B. Immediately remove and clean special coating materials from surfaces not intended to receive the materials.

C. Lightly scrub the cementitious waterproof membrane with detergent and flush to remove residual debris.

END OF SECTION

SECTION 07 92 00

JOINT SEALANTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Sealant work required:
      a. For a watertight project.
      b. To provide sanitary conditions.
      c. Required by code and not specifically covered in another section.
   2. Seal between all hoods, hatches, curbs, and adjacent surfaces.
   3. Minimum standards for all sealant work whether covered in this Section or in other sections.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM)

1.	ASTM C719	Standard Test Method for Adhesion and Cohesion of Elastomeric Joint Sealants under Cyclic Movement (Hockman Cycle) 1, 2
2.	ASTM C920	Standard Specification for Elastomeric Joint Sealants
3.	ASTM D5249	Standard Specification for Backer Material for Use with Cold- and Hot-Applied Joint Sealants in Portland-Cement Concrete and Asphalt Joints

B. Federal Specifications:

1.	TT-S-00-230C	Sealing Compound: Elastomeric Type, Single Component (For Caulking, Sealing and Glazing in Buildings and Other Structures)
2.	TT-S-00-227E	Sealing Compound: Elastomeric Type, Multi-Component (For Caulking, Sealing and Glazing in Buildings and Other Structures)
3.	TT-S-00-1543A	Sealing Compound: Silicone Rubber Base (For Caulking, Sealing and Glazing in Buildings and Other Structures)

1.03 SUBMITTALS

A. Product Data: Fully describe all products proposed for use.

B. Samples: Provide physical samples of cured sealants for selection of colors.

C. Manufacturer's Instructions: Application instructions for all products used.

1.04 QUALITY ASSURANCE

A. Qualifications: The joint sealant work shall be provided by a licensed Specialty Sealant and Waterproofing Contractor who is engaged exclusively in the installation of joint sealants, has satisfactorily completed at least five (5) similar installations within the last two (2) years, and approved by the sealant material manufacturer. All work to be performed by qualified journeymen proficient in the craft of sealant application.

B. Regulatory Requirements: Comply with the International Building Code (IBC), 2021 edition, especially Chapters 15, 24 and 25.

1.05 PROJECT CONDITIONS

A. Environmental Requirements: Apply sealant only when temperature and humidity conditions are at the levels recommended by the sealant manufacturer.

1.06 SPECIAL GUARANTEE

A. Provide a written Special Guarantee covering replacement of sealant work that fails within 2 years of the date of project acceptance. Failure includes:
   1. Becoming brittle or cracking due to exposure, contraction, or expansion.
   2. Failure to resist abrasion of normal use and traffic.
   3. Tear failure due to movement within 50% of joint width for Class A sealants.
   4. Cohesive or adhesive failure due to movement within 50% of joint width for Fed. Spec. Class A sealants.
   5. Water infiltration for joints intended to exclude water, air infiltration for joints intended to exclude air.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Sealant Type "A": Exterior surface sealant for use in joints in concrete, metal, and similar materials, conforming to NSF/ANSI/CAN 600, Fed. Spec. TT S 00230C Type II, in color selected. Acceptable products are:
   1. One part polyurethane: ConSeal CS-665 Non-Toxic Butyl Sealant
   2. One part polyurethane: Sika Sealant Division Sikaflex Ia.
   3. Or equal.

B. Sealant Backup: Closed Cell Polyethylene rod stock. Acceptable products are:
   1. Dow Corning "Ethafoam."
   2. Nomaco, HBR Backer Rod.
   3. Or equal.

PART 3 - EXECUTION

3.01 CONDITION OF SUBSTRATE

A. Allow concrete and masonry to cure for at least 28 days before applying sealants.

B. Inspect substrates to receive sealant work for:
   1. Deviation beyond allowable tolerance for joint width and required clear joint depth. Joint width shall not be less than 1/4 inch, or the width shown.
   2. Presence of contaminants, which cannot be removed by normal joint cleaning.
   3. Presence of moisture. Joint surfaces shall be dry.

C. Do not start work until unsatisfactory conditions have been corrected.

3.02 PREPARATION OF SURFACES

A. General: Substrates, surfaces, and interfaces must be sound and clean. All release agents, existing waterproofing, dust, loose mortar, paints, grease, curing compounds, saw residue, other finishes or field applied coating must be removed.

B. Clean surfaces to which sealant is to be adhered:
   1. For Concrete and Masonry: Sandblast joint surfaces taking care to protect exposed finish surfaces.
   2. For Metal: Sand or scrape and solvent clean with a non-film forming solvent.

C. Ensure that cleaned surfaces are not contaminated before applying sealant.

3.03 PRIMING

A. Where deemed necessary, use manufacturer's recommended primers for porous and non-porous substrates and/or surfaces.

3.04 APPLICATION

A. Follow sealant manufacturer's published instructions.

B. Install sealant backup the proper distance from face of joint for joint proportioned in accordance with sealant manufacturer's recommendations. Use polyethylene rod stock larger than joint so that backup can be firmly held in place.

C. Apply primer and/or cleaner conditioner recommended by sealant manufacturer for substrate. Avoid getting primer on the face of material or on areas that will not be covered by sealant.

D. Mask edges of joint with masking tape where required to avoid contamination of exposed surfaces adjacent to joint.

E. Apply self-leveling sealant by pouring, pumping or with a caulking gun. When using pump or caulking gun, fill joint from the bottom up to avoid air entrapment. Fill joint flush with surface of adjacent material without overfilling or spilling sealant on exposed surfaces.

F. Apply vertical grade sealants by hand or power operated caulking gun. Use a caulking tip the proper width for the joint required. Fill the joint from the bottom up to ensure a fully filled joint without entrapped air bubbles or voids. Use lubricant recommended by sealant manufacturer to tool joints. Force sealant against sides and bottom of joint and into all crevices; press out air bubbles and voids. Tool

sealant surface smooth and flush with adjacent surfaces for butt joints or to an even, straight-sided fillet of uniform width and slope for fillet joints.

G. Where the substrate or adjacent sealants are incompatible with the specified sealant, submit a sealant suitable for the required use and of equivalent life expectancy to the specified sealant.

3.05 CLEANUP

A. Upon completion, remove protective masking and clean any sealant from adjacent finished surfaces beyond edge of joint.

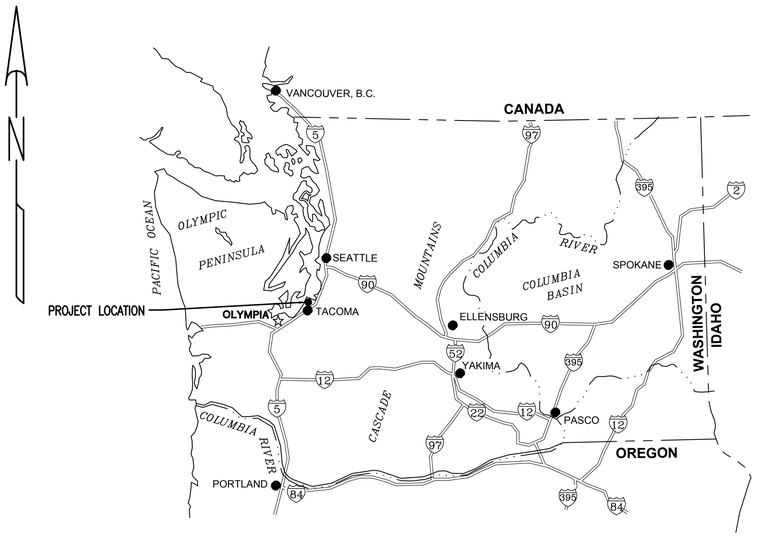
END OF SECTION

APPENDIX A

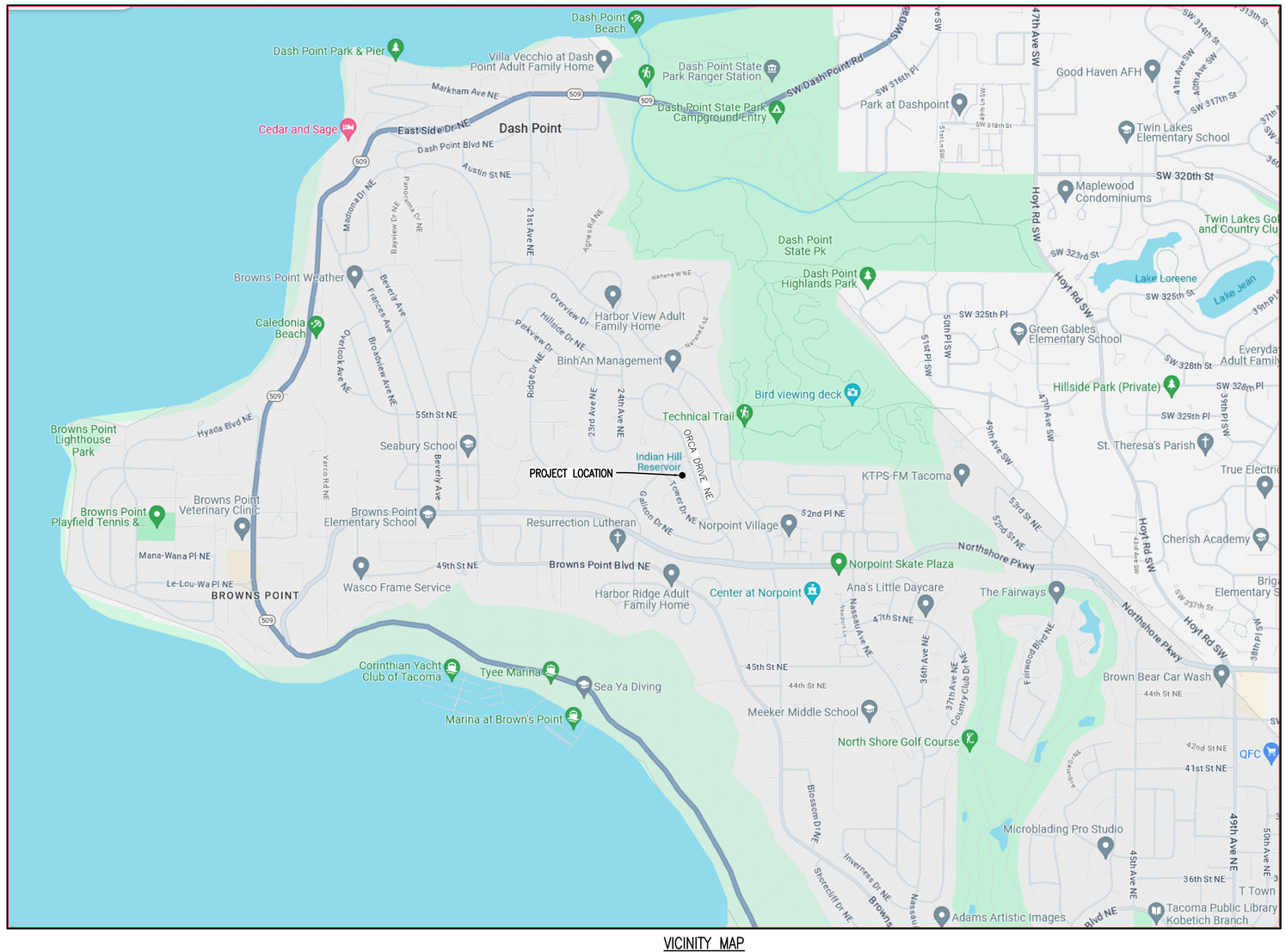
Drawings – Indian Hill 3.5MG Reservoir Re-Roof

INDIAN HILL RESERVOIR REROOF

DRAWING NO.	DRAWING NAME
GENERAL DRAWINGS	
G–01	TITLE PAGE
G–02	SITE PLAN AND PROJECT NOTES
ARCHITECTURAL DRAWINGS	
A–01	DEMOLITION ROOF PLAN WITH DETAILS
A–02	NEW ROOF RECOATING PLAN
A–03	ROOF RECOATING DETAILS – I
STRUCTURAL DRAWINGS	
S–01	GENERAL STRUCTURAL NOTES



REGIONAL MAP
NO SCALE



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NO SCALE

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LAURA MARIE TEJERA — STATE OF WASHINGTON — 54783 — REGISTERED PROFESSIONAL ENGINEER
5/15/24

Kennedy Jenks

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CADNET PROJECT NAME:
VAULT FILE NAME:
FIELD BOOK
DATA FILE

APPROVED
PROJECT MANAGER

TACOMA WATER
TACOMA PUBLIC UTILITIES

INDIAN HILL RESERVOIR REROOF
TITLE PAGE

SCALE NTS

DRAWING NO. G–01

SHEET 1 OF 6

CONSULTANT DRAWING NO.

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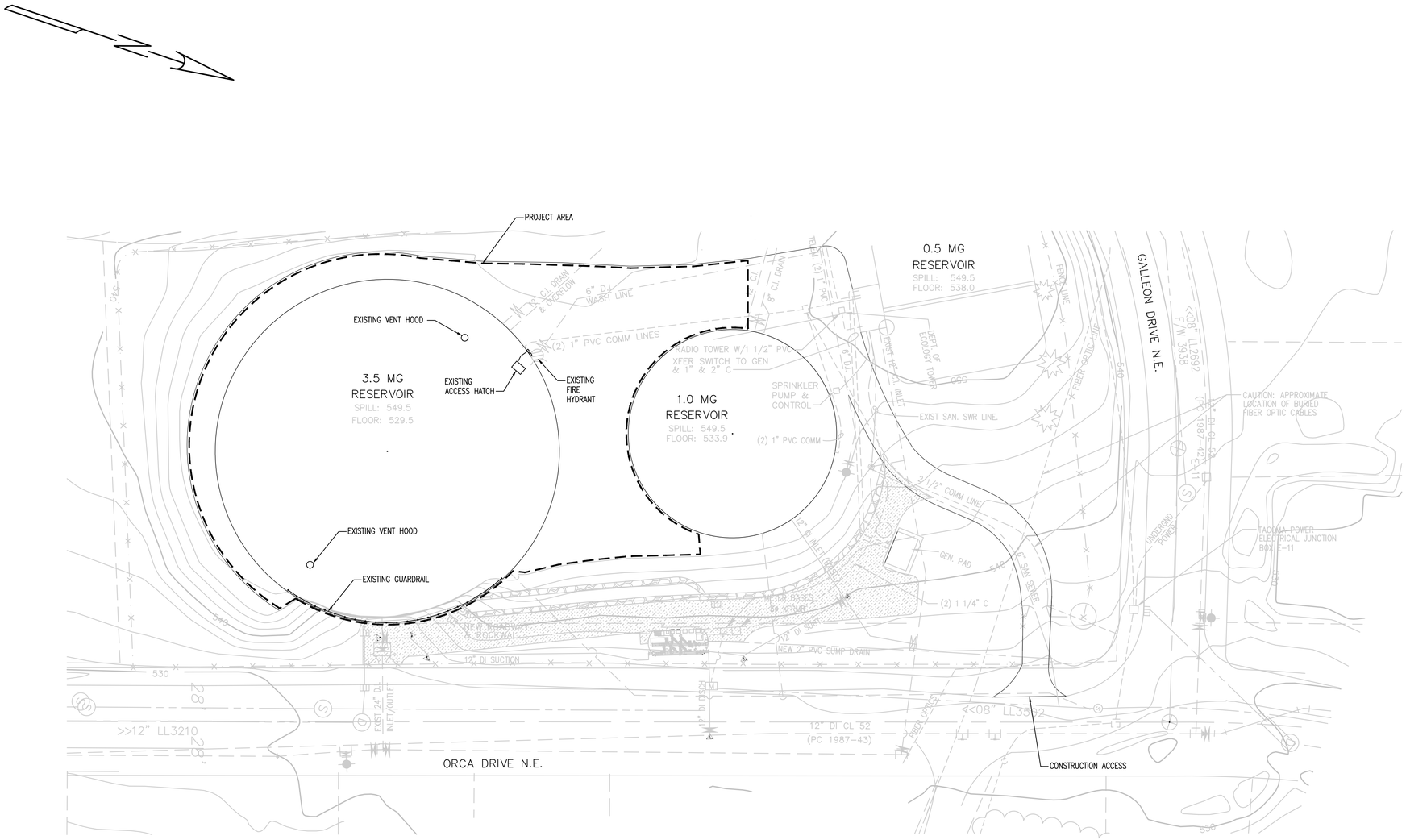

SITE PLAN
SCALE: 1" = 30'-0"

GENERAL NOTES

1. THE PROJECT WILL CONSIST OF REMOVING THE EXISTING ROOF COATING FROM THE 3.5 MILLION GALLON BELOW GROUND CONCRETED RESERVOIR AND RECOATING THE ROOF WITH A HIGH PERFORMANCE COATING. THE 1.0 MILLION GALLON RESERVOIR IS NOT INCLUDED IN THE PROJECT SCOPE.
2. THERE SHALL BE NO SUBSTITUTION OF MATERIALS WITHOUT PRIOR APPROVAL OF TACOMA WATER.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR WILL MAINTAIN ACCESS TO THE JOB SITE AT ALL TIMES. THE ACCESS MUST ALLOW ALL TACOMA WATER SUPPORT STAFF TO SAFELY ACCESS THE SITE. IF THE ACCESS IS DEEMED INACCESSIBLE TO SUPPORT STAFF, ALL WORK WILL CEASE UNTIL THE ACCESS IS DEEMED ACCESSIBLE BY TACOMA WATER.
5. TOPOGRAPHIC DATA SHOWN ON THESE DRAWINGS HAS BEEN PREPARED IN PART BASED ON DATA OBTAINED BY OTHERS. ALTHOUGH THIS INFORMATION IS BELIEVED TO BE ACCURATE, TACOMA WATER DOES NOT TAKE RESPONSIBILITY FOR ANY ERRORS THAT MAY RESULT BASED ON USE OF THIS DATA.
6. THE 3.5 MILLION GALLON RESERVOIR WILL BE EMPTY FOR THE DURATION OF THE CONSTRUCTION. CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO CONTAMINATE RESERVOIR BY DROPPING MATERIAL (ROOFING MATERIAL OR OTHER DETRITUS) THROUGH OPENINGS IN THE ROOF. ANY MATERIAL DROPPED INTO THE RESERVOIR SHALL BE REMOVED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
7. THE EXISTING RESERVOIR HAS BEEN DESIGNED FOR AN EXISTING LIVE LOAD OF 30 PSF. HEAVY EQUIPMENT IS NOT ALLOWED FOR USE ON THE EXISTING RESERVOIR ROOF. PRIOR TO LOADING THE ROOF, PROVIDE TO THE OWNER FOR REVIEW AND APPROVAL CUT SHEETS AND WHEEL LOADS FOR EQUIPMENT PROPOSED FOR USE ON THE RESERVOIR ROOF. SEE STRUCTURAL NOTES ON DRAWING NO. S-01.

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LAURA MARIE TEEPEN — STATE OF WASHINGTON — 54783 — REGISTERED PROFESSIONAL ENGINEER
5/15/24

Kennedy Jenks

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APPROVED
PROJECT MANAGER

TACOMA WATER
TACOMA PUBLIC UTILITIES

INDIAN HILL RESERVOIR REROOF
SITE PLAN AND PROJECT NOTES

SCALE 1" = 30'-0"
DRAWING NO. G-02
SHEET 2 OF 6

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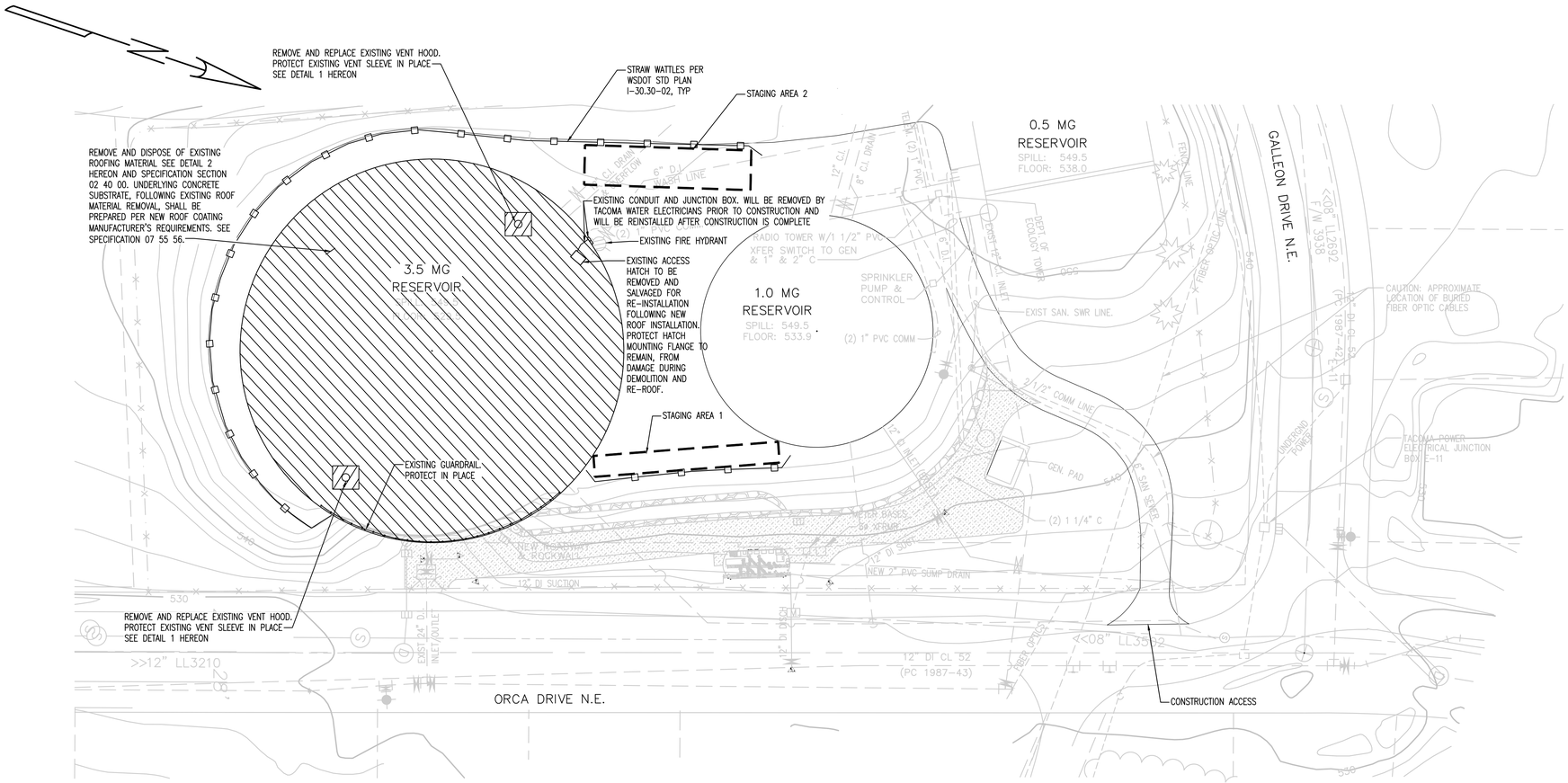

DEMOLITION SITE PLAN
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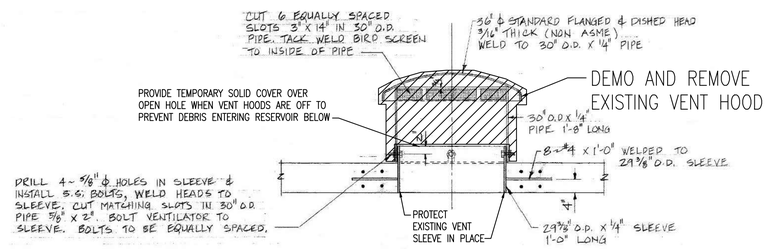

1 – VENT HOOD DEMOLITION DETAIL
SCALE: NONE

2 – ROOF MATERIAL DEMOLITION DETAIL
SCALE: NONE

TEMPORARY EROSION AND SEDIMENT CONTROL NOTES

1. THE IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENT CONTROL PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, UPGRADING, AND REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETE AND APPROVED.
2. CONTRACTOR SHALL PERFORM ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY TO ENSURE NO AGGREGATE, SOIL, OR OTHER MATERIALS ARE TRACKED OUT OF THE WORK AREA. TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE UPGRADED AS NECESSARY TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DOES NOT LEAVE THE DESIGNATED WORK AREA.
3. CONTRACTOR SHALL INSTALL STORMWATER INLET PROTECTION PER WSDOT STANDARD PLAN I-40.20-00 FOR ALL INLETS WITHIN THE WORK LIMITS AND WITHIN 100 FEET OF THE WORK LIMITS AND ALL HAUL ROUTES. INLET PROTECTION SHALL BE MAINTAINED UNTIL ALL CONSTRUCTION IS COMPLETE AND APPROVED.
4. AT NO TIME SHALL MORE THAN 1 FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN THE STORMWATER INLET PROTECTION.
5. ALL PROPOSED TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE SUBMITTED TO THE ENGINEER OR CITY FOR REVIEW.
6. ALL TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTION ACTIVITIES AND IN SUCH A MANNER AS TO ENSURE THAT CONSTRUCTION STORMWATER OR ANY WASHWATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER QUALITY STANDARDS.
7. STABILIZATION SHALL BE PROVIDED FOR STOCKPILE(S). ANY STOCKPILES SHALL BE UNDERLAIN AND COVERED WITH PLASTIC SHEETING OF A SIZE SUBSTANTIALLY LARGER THAN THE PILE. THE CONTRACTOR SHALL SECURE STOCKPILE(S) AS REQUIRED ON A DAILY BASIS PRIOR TO LEAVING THE JOBSITE. SECURE COVERS AGAINST MOVEMENT BY WIND AND TO MINIMIZE MATERIAL CONTACT WITH STORMWATER. STABILIZATION OF STOCKPILES SHALL BE UPGRADED AS NEEDED.
   A. STOCKPILE BASE LINERS SHALL BE 10 MIL STRING REINFORCED MULTI-LAYER PLASTIC SHEETING.
   B. ALL OTHER PLASTIC SHEETING SHALL BE 6 MIL UNREINFORCED.
8. STOCKPILES(S) SHALL BE SURROUNDED BY ECOLOGY BLOCKS, BARRICADES, HIGH VISIBILITY FENCING AND/OR OTHER MEASURES TO PROVIDE FOR TACOMA WATER AND CONTRACTOR SAFETY.
9. TRACK OUT FROM THE STOCKPILE SHALL BE MINIMIZED, AND PRIOR TO FINAL CLOSEOUT, STOCKPILE AREA SHALL BE CLEARED OF ACCUMULATED OR STRAY SEDIMENT OR CONSTRUCTION MATERIAL.
10. TRACK OUT ONTO PUBLIC ROADS SHALL BE PREVENTED. IN THE EVENT IT OCCURS, A SWEEPER TRUCK OR OTHER TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE USED TO COLLECT AND REMOVE ANY TRACKED OUT SEDIMENT FROM PUBLIC ROADS BY THE END OF THE WORK DAY.

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Kennedy Jenks

4455 REGISTERED ARCHITECT MARK PRESTON STATE OF WASHINGTON

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PROJECT MANAGER

TACOMA WATER
TACOMA PUBLIC UTILITIES

INDIAN HILL RESERVOIR REROOF
DEMOLITION ROOF PLAN WITH DETAILS

SCALE 1" = 30'-0"
DRAWING NO. A-01
SHEET 3 OF 6

CONSULTANT DRAWING NO.

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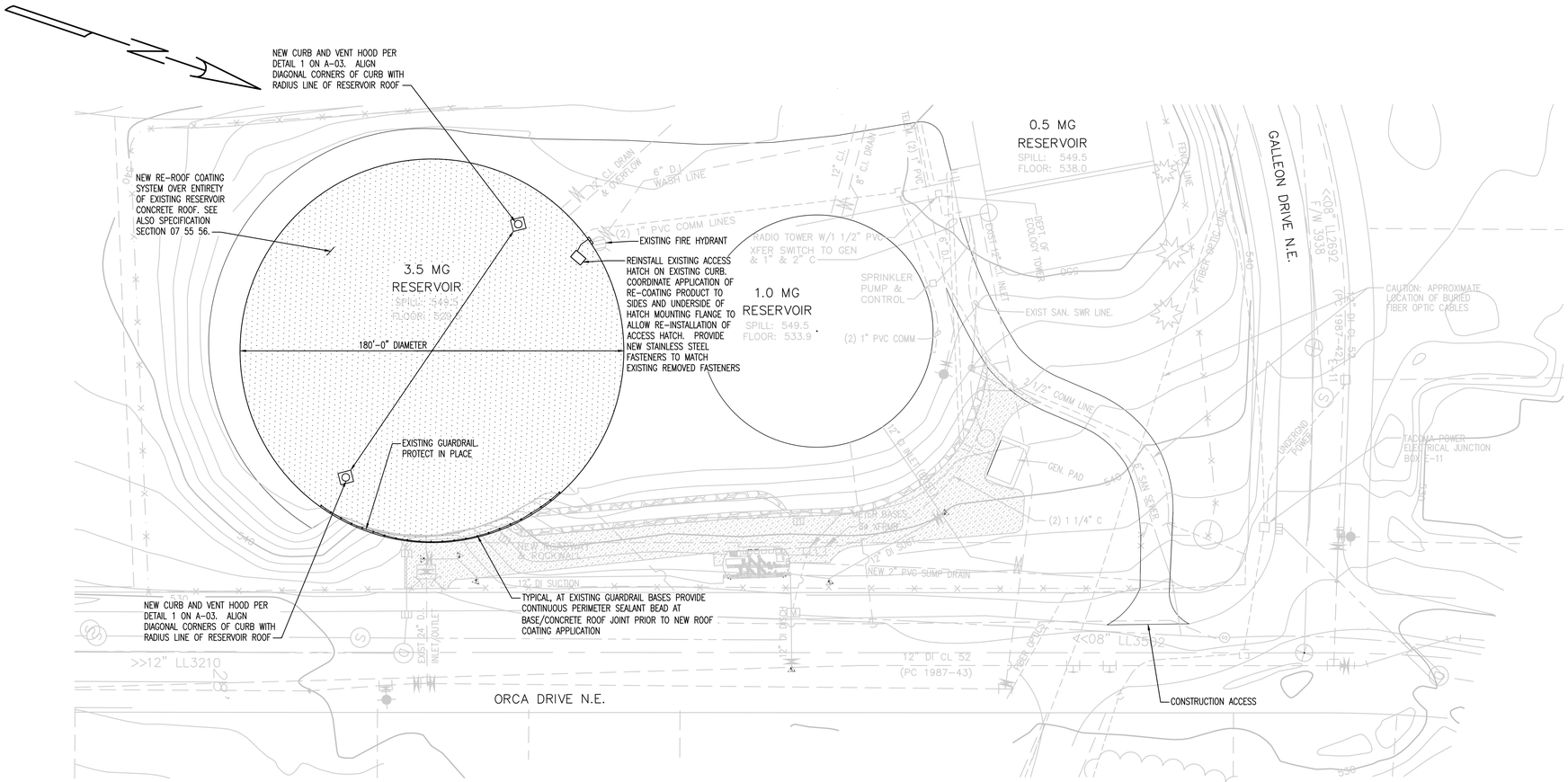
CONSTRUCTION NOTES:

1. REFER TO SPECIFICATION SECTION 03 93 50 FOR GUIDANCE ON REPAIR OF ANY CRACKS OR CONCRETE SPALLING IDENTIFIED AFTER THE EXISTING ROOFING MATERIAL IS REMOVED.



NEW ROOF RECOATING PLAN
SCALE: 1" = 30'-0"

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APPROVED
PROJECT MANAGER

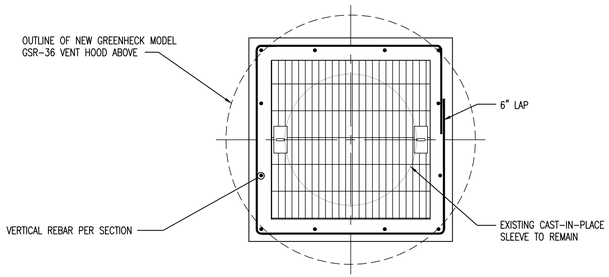
TACOMA WATER
TACOMA PUBLIC UTILITIES

INDIAN HILL RESERVOIR REROOF
NEW ROOF RECOATING PLAN

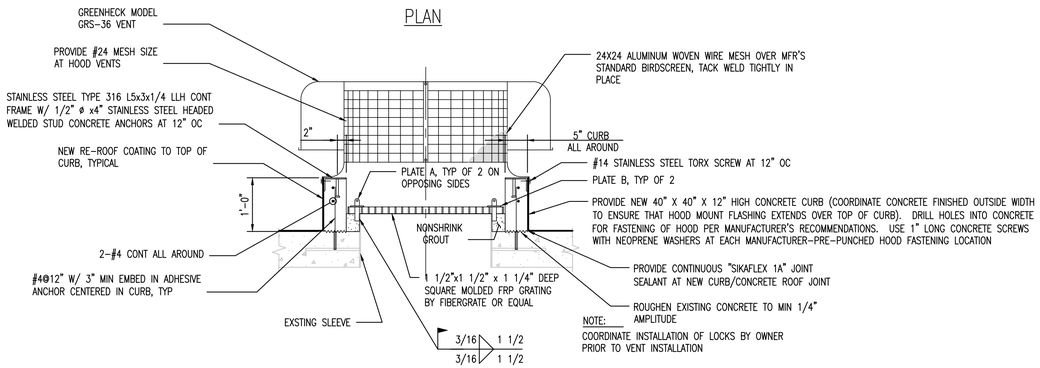
SCALE 1" = 30'-0"
DRAWING NO. A-02
SHEET 4 OF 6

CONSULTANT DRAWING NO.

Path: C:\pms\kjce-pw\d0271709\
Xref Filename: | 2197011.09-SITE | Plot date: May 15, 2024-11:35:49am CAD User: BryanH.
Filename: 2197011.09-A-02



PLAN



SECTION

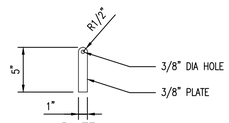


PLATE A
STAINLESS

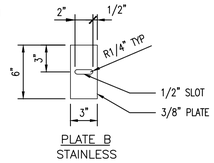


PLATE B
STAINLESS

1 NEW ROOF VENT HOOD AND CURB DETAIL
SCALE: 3/4" = 1'-0"

100% SUBMITTAL, 5/15/2024

DESIGN DEVELOPMENT PHASE

NOT FOR CONSTRUCTION

THIS DOCUMENT IS AN INTERIM DOCUMENT AND NOT SUITABLE FOR CONSTRUCTION. AS AN INTERIM DOCUMENT, IT MAY CONTAIN DATA THAT IS POTENTIALLY INACCURATE OR INCOMPLETE AND IS NOT TO BE RELIED UPON WITHOUT THE EXPRESS WRITTEN CONSENT OF THE PREPARER.

Kennedy Jenks

4455 REGISTERED ARCHITECT MARK PRESTON STATE OF WASHINGTON

NO.	REVISION	DATE	BY	APP'D.	REV. COMPL.

REFERENCE

DATE
DESIGN MP
DRAWN BBH
DIGITIZED
CHECKED ED

ACCOUNTING
CADNET PROJECT NAME:
VAULT FILE NAME:
FIELD BOOK
DATA FILE

APPROVED
PROJECT MANAGER

TACOMA WATER
TACOMA PUBLIC UTILITIES

INDIAN HILL RESERVOIR REROOF
ROOF RECOATING DETAILS – I

SCALE
AS SHOWN

DRAWING NO.
A-03

SHEET 5 OF 6

CONSULTANT DRAWING NO.

Path: C:\bms\Vpe-pw\d0271709\
Xref Filename: | Plot date: May 15, 2024 - 11:42:09am CAD User: Bryanh.
Filename: 2197011.09-A-03

GENERAL STRUCTURAL NOTES

GENERAL

1. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2021 WASHINGTON STATE BUILDING CODE (WSBC).
2. THESE NOTES APPLY TO ALL PARTS OF THE PROJECT, UNLESS NOTED OTHERWISE.
3. DIMENSIONS NOTED WITH AN ASTERISK, " * ", ARE TO BE COORDINATED IN THE FIELD BY THE CONTRACTOR.

PERMITS AND INSPECTIONS

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED BY THE LOCAL BUILDING INSPECTOR AND AS DESCRIBED IN THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL SELECT, INSTALL AND MAINTAIN SHORING, SHEETING, BRACING AND SLOPING AS NECESSARY TO MAINTAIN SAFE EXCAVATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING FULL COMPLIANCE WITH 29 CFR PART 1926 OSHA SUBPART P EXCAVATIONS AND TRENCHES REQUIREMENTS. ALL EARTHWORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH APPLICABLE LAW, INCLUDING LOCAL ORDINANCES, AND APPLICABLE OSHA REQUIREMENTS.

SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS

1. SPECIAL INSPECTION IN ACCORDANCE WITH 2021 WSBC, SECTION 1704, SHALL BE REQUIRED AS INDICATED IN THE SPECIAL INSPECTION AND TESTING SCHEDULE ON THIS SHEET.

SOIL AND FOUNDATIONS

1. GEOTECHNICAL INVESTIGATIONS FOR DESIGN PURPOSES FOR THIS PROJECT WERE NOT PERFORMED. SOIL VALUES PER RECORD DRAWINGS.

CONCRETE:

1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI AS MEASURED IN ACCORDANCE WITH ASTM C39.
2. MIX DESIGN
   - FIELD TEST RECORDS: SUBMIT IN ACCORDANCE WITH ACI 318 CHAPTER 26.4.4
   - WATER/CEMENT RATIO: 0.50 MAX
   - AIR CONTENT: 4% +/− 1% IN ACCORDANCE W/ ASTM C231
   - SLUMP: 3 TO 4 INCHES IN ACCORDANCE W/ ASTM C143
   - SHRINKAGE: 0.05% IN ACCORDANCE W/ ASTM C157
3. CEMENTITIOUS MATERIALS
   - MINIMUM CONTENT: 520 LBS/CU YD
   - PORTLAND CEMENT: ASTM C150, TYPE II LOW ALKALI
   - FLYASH: ASTM C618, CLASS F, NOT TO EXCEED 20% OF TOTAL CEMENTITIOUS MATERIALS
4. AGGREGATE
   - COARSE: CONFORM TO ASTM C33, 3/4−INCH MAX AGGREGATE
   - FINE: CONFORM TO TABLE 1 OF ASTMC33

COMBINED AGGREGATE GRADATION (% PASSING SIEVE)										
1−1/2"	1"	3/4"	3/8"	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200
100	90−100	55−100	45−75	35−60	27−45	20−35	12−25	3−15	0−5	0−2

5. ADMIXTURES
   - AIR ENTRAINING: ASTM C260
   - WATER REDUCING: ASTM C494, TYPE A
6. CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 301−16, 318−19, AND ACI 347.
7. PROVIDE SF−2.0 FINISH AT FORMED SURFACES IN ACCORDANCE WITH ACI 301.
8. UNLESS OTHERWISE NOTED, ALL EXPOSED EDGES AND CORNERS SHALL BE CHAMFERED 3/4−INCH.
9. CURING AND PROTECTION:
   CONCRETE SHALL BE PLACED AND CURED BETWEEN 50 AND 80 DEGREES F WITHOUT EXTERNAL LOADS FOR 14 DAYS. LEAVE NONABSORBENT FORMS IN PLACE FOR 14 DAYS.

   IMMEDIATELY AFTER PLACEMENT, PROTECT CONCRETE IN PLACE FROM PREMATURE DRYING, EXCESSIVELY HOT OR COLD TEMPERATURES, AND MECHANICAL INJURY.

   PROTECT CONCRETE DURING CURING FROM DAMAGING MECHANICAL DISTURBANCES INCLUDING LOAD STRESSES, SHOCK, AND HARMFUL VIBRATION.

   PROTECT CONCRETE SURFACES FROM DAMAGE BY EQUIPMENT, MATERIALS, RAIN OR RUNNING WATER, AND OTHER ADVERSE WEATHER CONDITIONS.

LOADING CRITERIA

1. MINIMUM LOADING REQUIREMENTS PER CHAPTER 16 OF THE 2021 WSBC CODE INCLUDING LATEST REVISION.
2. DEAD LOAD:
   EXISTING ROOFING + HOT MOP 11 PSF
3. LIVE LOAD CRITERIA:

   THE LIVE LOAD CRITERIA FOR THIS PROJECT ARE MAXIMUM ALLOWABLE VALUES INCLUDING OPERATING, OPERATOR, AND MATERIAL WEIGHTS. THE PROVIDED ALLOWABLE LOADING SHALL NOT BE COMBINED WITH ANY OTHER LOADING, INCLUDING BUT NOT LIMITED TO, THE EXISTING RECORD DRAWING LIVE LOAD, STOCKPILING NEW OR EXISTING MATERIALS, ADDITIONAL MACHINERY UNITS, OR ANY OTHER LOADING NOT APPROVED BY THE ENGINEER OF RECORD.

   EXISTING RESERVOIR ROOF LIVE LOAD PER RECORD DRAWINGS 30 PSF
   MAXIMUM ALLOWABLE CONCENTRATED LIVE LOAD DISTRIBUTED OVER 2'−6" x 2'−6" AREA 3,000 LBS
4. WIND CRITERIA:
   - BASIC WIND SPEED, V_{ULT} 108 MPH
   - NOMINAL WIND SPEED, V_{ASD} 84 MPH
   - EXPOSURE B

   INTERNAL PRESSURE COEFFICIENTS
   ENCLOSED & PARTIALLY ENCLOSED BUILDINGS +/− 0.18

   COMPONENTS & CLADDING
   ROOF VENT (STRENGTH LEVEL) +16/−17.1 PSF
5. RISK CATEGORY IV
6. SNOW CRITERIA:
   - IMPORTANCE FACTOR, I_S 1.2
   - BASIC GROUND SNOW LOAD, P_g 25 PSF
   - SNOW EXPOSURE COEFFICIENT, C_e 1.0
   - THERMAL FACTOR, C_t 1.2
   - FLAT ROOF SNOW LOAD, P_F 25.2 PSF
7. SEISMIC CRITERIA:
   THE SEISMIC DESIGN CRITERIA FOR THIS PROJECT HAS BEEN DEVELOPED IN ACCORDANCE WITH MULTIPLE EXCEPTIONS FOUND IN ASCE 7−16. THE FOLLOWING DOCUMENTS THE APPROACH TO DEVELOPING THE SEISMIC DESIGN PARAMETERS:

   THE SEISMIC DESIGN PARAMETERS HAVE BEEN DEVELOPED IN ACCORDANCE WITH ASCE 7−16, SUPPLEMENT NO. 3 (NOVEMBER 2021), CONSIDERING EXCEPTION 1 IN SECTION 11.4.8 WHERE A SITE−SPECIFIC GROUND MOTION PROCEDURE IS NOT REQUIRED PROVIDED WHEN S_{D1} IS REPLACED WITH $1.5S_{D1}$.

   - SEISMIC IMPORTANCE FACTOR, I_E 1.5
   - MAPPED RESPONSE PARAMETER, S_S 1.371
   - MAPPED RESPONSE PARAMETER, S_1 0.472
   - SITE CLASS (DEFAULT VALUE) D

   - DESIGN RESPONSE PARAMETER, S_{DS} 1.097
   - DESIGN RESPONSE PARAMETER, S_{D1} 0.863
   - SEISMIC DESIGN CATEGORY D
   - RESPONSE MODIFICATION FACTOR, R NA (EXISTING STRUCTURE)
   - RESPONSE MODIFICATION FACTOR, R_I NA (EXISTING STRUCTURE)
   - LONG PERIOD TRANSITION PERIOD, T_L 6

REINFORCING STEEL

1. REINFORCING BARS SHALL BE ASTM A615−GRADE 60.
2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1046.
3. ARRANGEMENT AND DETAILING OF REINFORCING STEEL, INCLUDING BAR SUPPORTS AND SPACERS, SHALL BE IN ACCORDANCE WITH THE LATEST ACI 315 DETAILING MANUAL.
4. REINFORCING SHALL LAP IN ACCORDANCE WITH ACI 318−19.
5. DIMENSIONS TO REINFORCING ARE TO BAR CENTERLINES, UNLESS NOTED OTHERWISE BAR COVER IS CLEAR DISTANCE BETWEEN THE BAR AND THE CONCRETE SURFACE. UNLESS SHOWN OTHERWISE BAR COVER SHALL NOT BE LESS THAN, UNLESS OTHERWISE SHOWN ON THE DRAWINGS:
   - INTERIOR DRY SURFACES 1 1/2−INCH
   - SLAB BOTTOMS ON CONCRETE WORK MAT 2−INCH
   - SURFACES EXPOSED TO EARTH, WATER, OR WEATHER 2−INCH
   - SLAB BOTTOMS AND SIDES IN CONTACT WITH EARTH 3−INCH

SUBMITTAL REQUIREMENTS

1. PRODUCT DATA AND ADDITIONAL INFORMATION:
   BAR SUPPORTS AND CHAIRS
   MECHANICAL BAR CONNECTORS, INCLUDING ICC−ES REPORTS
   CERTIFIED MILL TEST REPORTS ON REINFORCEMENT
   CEMENTITIOUS MATERIALS
   COARSE AND FINE AGGREGATES
   ADMIXTURES
   WATER
   READY−MIX PLANT CERTIFICATION
   MIX DESIGNS
   MIX TEST RESULTS
   CURING MATERIALS AND PROGRAM
   JOINT FILLERS
   SEALANTS
   GROUTS
   METHODS AND MATERIALS FOR CONCRETE REPAIRS ADHESIVE ANCHORS, INCLUDING ICC−ES REPORTS
   METHODS, MATERIALS, AND APPLICABLE EQUIPMENT CALCULATIONS FOR REMOVING EXISTING ROOFING MATERIAL

2. SHOP DRAWINGS:
   BAR AND WIRE FABRIC LAYOUTS
   BAR BENDING DIAGRAMS
   ASSEMBLY DIAGRAMS, INCLUDING BAR LAP AND SPLICE LOCATIONS
   MECHANICAL CONNECTOR LAYOUT
   ACCESSORIES AND INSERTS LAYOUT
   CONSTRUCTION JOINT LAYOUT
   PROGRAM AND METHOD OF CONCRETE PLACEMENT

ADHESIVE ANCHORING SYSTEMS

1. ADHESIVE: TWO−COMPONENT EPOXY RESIN AND HARDENER MEETING THE REQUIREMENTS OF ASTM C881 TYPES 1 AND 4, GRADE 3, CLASS B AND C. ADHESIVE SHALL BE SUPPLIED IN MANUFACTURER'S STANDARD SIDE−BY−SIDE CARTRIDGE AND DISPENSED THROUGH MANUFACTURER'S STATIC−MIXING NOZZLE.
2. ANCHOR: THREADED ROD WITH CHAMFERED THREADED END. PROVIDE 45 DEGREE CHISEL POINT AT INSERTION END OF ROD OR REINFORCING. FURNISH NUTS AND WASHERS AS REQUIRED. PROVIDE HOT−DIP GALVANIZED RODS UNLESS OTHERWISE NOTED. PROVIDE STAINLESS STEEL AT SUBMERGED OR BURIED APPLICATIONS, AND AT APPLICATIONS EXPOSED TO WEATHER OR CORROSIVE CHEMICALS.
   - ASTM A193 GRADE B7 (HIGH−STRENGTH CARBON STEEL)
   - REINFORCING BARS IN ACCORDANCE WITH THIS DRAWING
3. MANUFACTURER: HILTI HIT−RE 500 V3, HILTI HIT HY−200 V3, DEWALT PURE 110+, OR EQUAL.
4. FOR SUBMERGED APPLICATIONS IN POTABLE WATER PROVIDE NSF/ANSI STD 61 CERTIFICATION.

SPECIAL INSPECTION AND TESTING SCHEDULE

1. CONCRETE INSPECTION:
   CONT PER
   - [X] [ ] CONTINUOUS PLACEMENT INSPECTION EXCEPT f'c<2,500 PSI OR TYPE E CONCRETE
   - [ ] [X] VERIFY DESIGN MIX
   - [X] [ ] AT TIME SAMPLE TAKEN FOR STRENGTH, SLUMP, UNIT WEIGHT, AIR AND TEMPERATURE TESTS.
   - [ ] [X] PROPER CURING AND TEMPERATURE
   - [X] [ ] BOLTS INSTALLED IN CONCRETE
   - [ ] [X] REINFORCING PLACEMENT
   - [ ] [X] FORMWORK
   - [ ] [ ] STRESSING & GROUTING OF TENDONS

   TESTING:
   - [X] 4 CYLINDERS PER BATCH AND AT LEAST ONCE PER DAY. TEST: 2 @ 7 DAYS, 2 @ 28 DAYS. IF TOTAL QUANTITY IS LESS THAN 50 CUBIC YARDS, STRENGTH TESTS ARE NOT REQUIRED IF EVIDENCE OF SATISFACTORY STRENGTH IS SUBMITTED TO AND APPROVED BY THE BUILDING OFFICIAL. EXCEPT f'c<2,500 PSI OR TYPE E CONCRETE
   - [X] SLUMP TEST − PER 50 CY & AT STRENGTH SAMPLE
   - [X] AIR TEST − PER STRENGTH SAMPLES
   - [ ] SHRINKAGE TEST − 3 SPECIMENS PER STRENGTH SCHEDULE
   - [ ] UNIT WEIGHT TEST − PER STRENGTH SAMPLES
2. SPECIAL CASES
   ANCHORAGE TO EXISTING CONCRETE:
   - [X] INSTALLATION INSPECTION IN ACCORDANCE WITH ICC−ES REPORT

EXISTING STRUCTURE REFERENCE DOCUMENTS

1. THE EXISTING CONDITIONS SHOWN ON THESE CONTRACT DOCUMENTS ARE DEVELOPED FROM THE AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY DEMOLITION, ORDERING, OR FABRICATING ANY MATERIALS. IF RECORD DRAWINGS ARE AVAILABLE, AND AVAILABLE FOR DISTRIBUTION, OBTAIN A COPY PRIOR TO CONSTRUCTION. DURING CONSTRUCTION, THE CONTRACTOR SHALL NOT ALTER, DAMAGE, OR REMOVE ANY PORTIONS OF THE EXISTING STRUCTURE (INCLUDING NONSTRUCTURAL COMPONENTS) UNLESS SPECIFICALLY INDICATED ON THESE CONSTRUCTION DOCUMENTS. THE FOLLOWING RECORD DRAWINGS HAVE BEEN USED TO DEVELOP THESE CONTRACT DOCUMENTS:

PROJECT TITLE	CITY OF TACOMA DEPARTMENT OF PUBLIC UTILITIES WATER DIVISION, INDIAN HILL 3.5 M.G. STORAGE RESERVOIR
DATE	DECEMBER 1979

2. ALL DIMENSIONS AND SIZES SHOWN ARE APPROXIMATE AND PROVIDED AS AN AID IN INTERPRETING THE ANTICIPATED EXISTING CONDITIONS. FIELD VERIFY ALL DIMENSIONS SHOWN WITH EXISTING CONDITIONS.
3. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING OR FABRICATING ANY MATERIALS. NOTIFY THE ENGINEER OF RECORD OF ANY POSSIBLE DISCREPANCIES PRIOR TO CONSTRUCTION.
4. DO NOT DAMAGE, OVERCUT, SCRATCH, OR CRACK ANY PORTION OF THE EXISTING STRUCTURE NOT INTENDED TO BE MODIFIED. PROTECT AND PRESERVE PORTIONS OF THE EXISTING STRUCTURE NOT INTENDED TO BE MODIFIED.
5. LOCATE AND AVOID ALL REINFORCEMENT PRIOR TO DRILLING EXISTING CONCRETE.

JESSICA A. POWELL — STATE OF WASHINGTON — 22015711 — REGISTERED PROFESSIONAL ENGINEER — 5/15/2024

Kennedy Jenks

NO.	REVISION	DATE	BY	APP'D.	REV. COMPL.	REFERENCE

DATE
DESIGN JP
DRAWN JP
DIGITIZED
CHECKED PJB

ACCOUNTING
CADNET PROJECT NAME:
VAULT FILE NAME:
FIELD BOOK
DATA FILE

APPROVED
PROJECT MANAGER

TACOMA WATER
TACOMA PUBLIC UTILITIES

100% SUBMITTAL, 5/15/2024

DESIGN DEVELOPMENT PHASE

NOT FOR CONSTRUCTION

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INDIAN HILL RESERVOIR REROOF
STRUCTURAL
GENERAL STRUCTURAL NOTES

SCALE NTS
DRAWING NO. S−01
SHEET OF

CONSULTANT DRAWING NO.

Path: C:\pms\kjce−pw\d0271734\
Xref Filename: | Plot date: May 15, 2024−11:36:06am CAD User: JessicaPowell.
Filename: 2197011.09−S−01

APPENDIX B

Signature Page
Bid Proposal Sheet
Certification of Compliance with Wage Payment Statutes
State Responsibility and Reciprocal Bid Preference Information
EIC Requirement Form
EIC Utilization Form
Record of Prior Contracts

SIGNATURE PAGE

CITY OF TACOMA
TACOMA WATER

All submittals must be in ink or typewritten, executed by a duly authorized officer or representative of the bidding/proposing entity, and received and time stamped as directed in the **Request for Bids page near the beginning of the specification**. If the bidder/proposer is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.

REQUEST FOR BIDS SPECIFICATION NO. TW24-0129N
Indian Hill 3.5MG Reservoir Re-Roof

The undersigned bidder/proposer hereby agrees to execute the proposed contract and furnish all materials, labor, tools, equipment and all other facilities and services in accordance with these specifications.

The bidder/proposer agrees, by submitting a bid/proposal under these specifications, that in the event any litigation should arise concerning the submission of bids/proposals or the award of contract under this specification, Request for Bids, Request for Proposals or Request for Qualifications, the venue of such action or litigation shall be in the Superior Court of the State of Washington, in and for the County of Pierce.

Non-Collusion Declaration

The undersigned bidder/proposer hereby certifies under penalty of perjury that this bid/proposal is genuine and not a sham or collusive bid/proposal, or made in the interests or on behalf of any person or entity not herein named; and that said bidder/proposer has not directly or indirectly induced or solicited any contractor or supplier on the above work to put in a sham bid/proposal or any person or entity to refrain from submitting a bid/proposal; and that said bidder/proposer has not, in any manner, sought by collusion to secure to itself an advantage over any other contractor(s) or person(s).

_____
Bidder/Proposer's Registered Name

_____
Address

_____
City, State, Zip

_____
Authorized Signatory E-Mail Address

_____
E.I. No. / Federal Social Security Number Used on Quarterly Federal Tax Return, U.S. Treasury Dept. Form 941

_____
E-Mail Address for Communications

_____
Signature of Person Authorized to Enter into Contracts for Bidder/Proposer — Date

_____
Printed Name and Title

_____
(Area Code) Telephone Number / Fax Number

_____
State Business License Number
in WA, also known as UBI (Unified Business Identifier) Number

_____
State Contractor's License Number
(See Ch. 18.27, R.C.W.)

Addendum acknowledgement #1_____#2_____#3_____#4_____#5_____

THIS PAGE MUST BE SIGNED AND RETURNED WITH SUBMITTAL.

BID PROPOSAL SHEET

TW24-0129N – Indian Hill 3.5MG Reservoir Re-Roof

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY		UNIT PRICE	TOTAL AMOUNT
		Unit	No.		
1	Mobilization, Demobilization & Cleanup	Lump Sum	1	$_____	$ _____
2	Temporary Erosion and Sediment Controls	Lump Sum	1	$_____	$ _____
3	Removal of Existing Roofing Material	Square Foot	25,500	$_____	$ _____
4	Removal and Salvage of Existing Access Hatch	Each	1	$_____	$ _____
5	Removal and Disposal of Existing Vent Hood	Each	2	$_____	$ _____
6	Transport and Dispose Roof Material	Ton	270	$_____	$ _____
7	Preparation and Installation of New Roof Coating System	Square Foot	28,000	$_____	$ _____
8	New Vent Hood	Each	2	$_____	$ _____
9	New Concrete Curbs Under Vent	Each	2	$_____	$ _____
10	Reinstall Salvaged Access Hatch	Each	1	$_____	$ _____
11	Structural Crack Repair	Linear Foot	50	$_____	$ _____
12	Structural Concrete Spalling Repair	Square Foot	50	$_____	$ _____
13	Force Account	N/A			$ 20,000
Total Base Bid					**$** _____

City of Tacoma

Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date 6/17/2024, that the bidder is not a "willful" violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the state of Washington that the foregoing is true and correct.

_____
Bidder

_____
Signature of Authorized Official*

_____
Printed Name

_____
Title

_____ _____ _____
Date City State

Check One:

Individual ☐ Partnership ☐ Joint Venture ☐ Corporation ☐

State of Incorporation, or if not a corporation, the state where business entity was formed:

_____

If a co-partnership, give firm name under which business is transacted:

_____

** If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.*

Specification No. _____

Name of Bidder: _____

State Responsibility and Reciprocal Bid Preference Information

Certificate of registration as a contractor (Must be in effect at the time of bid submittal):	Number: _____ Effective Date: _____ Expiration Date: _____
Current Washington Unified Business Identifier (UBI) Number:	Number: _____
Do you have industrial insurance (workers' compensation) Coverage for your employees working in Washington?	☐ Yes ☐ No ☐ Not Applicable
Washington Employment Security Department Number	Number: _____ ☐ Not Applicable
Washington Department of Revenue state excise tax Registration number:	Number: _____ ☐ Not Applicable
Have you been disqualified from bidding any public works contracts under RCW 39.06.010 or 39.12.065(3)?	☐ Yes ☐ No If yes, provide an explanation of your disqualification on a separate page.
Do you have a physical office located in the state of Washington?	☐ Yes ☐ No
If incorporated, in what state were you incorporated?	State: _____ ☐ Not Incorporated
If not incorporated, in what state was your business entity formed?	State: _____
Have you completed the training required by RCW 39.04.350, or are you on the list of exempt businesses maintained by the Department of Labor and Industries?	☐ Yes ☐ No

EQUITY IN CONTRACTING (EIC) REQUIREMENTS MEMO

CCD/EIC: 20000125376
Date of Record: 05/23/2024
Project Spec#: TW24-0129N
Project Title: Indian Hill 3.5MG Reservoir Re-Roof

EQUITY IN CONTRACTING REQUIREMENTS

Minority Business Enterprise Requirement	Women Business Enterprise Requirement	Small Business Enterprise Requirement
8%	**0%**	**10%**

All bidders must complete and submit with their bid the EIC Utilization form contained in the bid submittal package.

A list of EIC-eligible companies is available at **www.omwbe.wa.gov**[1]

IMPORTANT NOTE:
It is the bidder's responsibility to ensure that the subcontractor(s) listed on the EIC Utilization Form are currently certified by the State of Washington's Office of Minority and Women Business Enterprises (OMWBE) at the time of bid opening. This may be verified by contacting the EIC Office at (253) 344-6632 between 8 AM and 5 PM, Monday through Friday or the OMWBE Office at (866) 208-1064. Please refer to the City of Tacoma EIC code.

MATERIAL MISSTATEMENTS CONCERNING COMPLETED ACTIONS BY THE BIDDER IN ANY SWORN STATEMENT OR FAILURE TO MEET COMMITMENTS AS INDICATED ON THE EIC UTILIZATION FORM MAY RENDER THE BIDDER IN DEFAULT OF CITY ORDINANCE 1.07

[1] For the OMWBE list, be sure to look for businesses in Pierce, King, Lewis, Mason, Grays Harbor, Thurston, or any counties adjacent to the county in which the work is performed per 1.07.050(2)(b-c). Contact the EIC Office if you have any questions.

City of Tacoma
Community & Economic Development
747 Market Street, Rm 900
Tacoma WA 98402

CITY OF TACOMA EQUITY IN CONTRACTING (EIC) PROGRAM

Bidders Special Instructions

As part of the City of Tacoma's ongoing work to address past disparities and to increase the City's contracting with and utilization of historically underutilized businesses, the Equity in Contracting (EIC) Program places requirements on City contracts for utilization of businesses certified by the Washington State Office of Minority and Women's Business Enterprise (OMWBE) and approved by the Equity in Contracting Program ("Certified Businesses"). The EIC Program also provides guidance and technical assistance to Certified Businesses who are interested in providing supplies, services and public works to the City of Tacoma.

The EIC Program requirements are contained in Tacoma Municipal Code Chapter 1.07.

Contractors bidding on City of Tacoma projects are required to meet the stated EIC requirements. Bids will be evaluated on an individual basis to determine EIC compliance. **A contractor who fails to meet the stated EIC requirements will be considered non-responsible.** Bidders are also subject to the City's Equal Employment Opportunity policies prohibiting discrimination.

The stated EIC requirements may be met by the contractor or by identified subcontractors. All EIC Requirements may be met by using MBEs, WBEs, DBEs or SBEs from the OMWBE certified list (OMWBE website). It is the bidder's responsibility to ensure that their firm or identified subcontractors are certified by OMWBE and approved by the City of Tacoma EIC Program **at the time of bid submittal**. Business certification may be verified by contacting the EIC Office*.

For the OMWBE list, be sure to look for businesses in Pierce, King, Lewis, Mason, Grays Harbor, Thurston, or any counties adjacent to the county in which the work is performed per 1.07.050(2)(b-c). Contact the EIC Office if you have any questions.*

The Equity in Contracting (EIC) forms included in these bid documents must be fully completed (including attachments) and included with bid submittals. Failure to include the required forms will result in the submittal being rejected as nonresponsive.

Post-Award Important Information

For all contracts that have requirements related to the EIC policy, the City of Tacoma is utilizing a cloud-based software system:

B2Gnow - Contractors and subcontractors must report payment information in the B2Gnow System on a monthly basis. The EIC Staff will monitor/audit that retainage is paid by the prime contractor to the subcontractor(s) within 10 [working] days after the subcontractors' work is satisfactorily completed. This will be monitored/audited using the B2Gnow System.

The system is monitored/audited by EIC staff to ensure contract compliance, proactively identify potential issues, and track contract progress.

***EIC STAFF Contact Information**

For questions regarding Certifications, EIC Compliance and B2GNow support, contact EIC Staff:

- **Call EIC Office** at (253) 591-5630 or (253) 591-5826
- **Email EIC Office** at EICOffice@cityoftacoma.org

EQUITY IN CONTRACTING (EIC) UTILIZATION FORM

STOP! READ Instructions to Bidders/Proposers for completing EIC Utilization Form.

Failure to complete all sections of this form according to the instructions provided or failure to submit this form shall render the bid or proposal non-responsive. (If necessary, use additional forms to list the requirements of Columns A-D). City reserves the right to make minor, non-material corrections to completed Forms, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.

Please note: Certified Businesses MUST be certified at time of or prior to bid opening.

1.Bidder Name:			
2.Project Title:		**3.SPEC #:**	
4.Base Bid – No Sales Tax (Must match Bid Proposal amount)	**$**		

Column A. Certified Business Name	Column B. Business Cert. Type			Column C. Bid Item(s) Number(s) performed by the Certified Business(es)	Column D. Subcontract Amount If Material supplier, only 20% of the subcontract amount can be counted towards the EIC Requirements
	MBE	WBE	SBE/DBE		
Representative Name & Contact # below:	☐	☐	☐	What is the Certified Firm Project Role Subcontractor ☐ Material Supplier (20%) ☐	
Representative Name & Contact # below:	☐	☐	☐	What is the Certified Firm Project Role: Subcontractor ☐ Material Supplier (20%)☐	
Representative Name & Contact # below:	☐	☐	☐	What is the Certified Firm Project Role: Subcontractor ☐ Material Supplier (20%) ☐	
Representative Name & Contact # below:	☐	☐	☐	What is the Certified Firm Project Role: Subcontractor ☐ Material Supplier (20%) ☐	

*** For EIC Requirements on this Project, refer to *EIC Requirements (EIC Reqs) Memo in the Bid Package**

EQUITY IN CONTRACTING (EIC) UTILIZATION FORM

STOP! READ Instructions to Bidders/Proposers for completing EIC Utilization Form.

Failure to complete all sections of this form according to the instructions provided or failure to submit this form shall render the bid or proposal non-responsive. (If necessary, use additional forms to list the requirements of Columns A-D). City reserves the right to make minor, non-material corrections to completed Forms, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.

Please note: Certified Businesses MUST be certified at time of or prior to bid opening.

Example of a COMPLETED EIC UTILIZATION FORM

Initial Information:

1.Bidder Name:	ABC Construction, Inc.		
2.Project Title:	Downtown Restoration and Street Maintenance Project	**3.SPEC #:**	PW23-0011F
4.Base Bid – No Sales Tax (Must match Bid Proposal amount)	$359, 670. 00		

Column A. Certified Business Name	Column B. Business Cert. Type			Column C. Bid Item(s) Number(s) performed by the Certified Business(es)	Column D. Subcontract Amount If Material supplier, only 20% of the subcontract amount can be counted towards the EIC Requirements
	MBE	WBE	SBE/DBE		
Traffic ABC Representative Name & Contact # below: **Beth Bell – (253) 555-3333**	☒	☐	☒	**Bid Item #4- Pedestrian Traffic Control** What is the Certified Firm Project Role? Subcontractor ☒ Material Supplier (20%) ☐	**$30,000**
Survey 101, Inc. Representative Name & Contact # below: **John Doe – (253) 111-2233**	☒	☒	☐	**Bid Item #1 – Roadway Surveying** What is the Certified Firm Project Role? Subcontractor ☒ Material Supplier (20%) ☐	**$9,500.00**
Hello Manufacturer Representative Name & Contact # below: **Sam Jam – (253) 555-7899**	☒	☐	☒	**Bid Item #66- Green Durable Product** What is the Certified Firm Project Role? Subcontractor ☐ Material Supplier (20%) ☒	**$10,000** (In this example, Total subcontract amount is $10,000- Only 20% of total will be applied towards *EIC Reqs)
Representative Name & Contact # below:	☐	☐	☐	What is the Certified Firm Project Role: Subcontractor ☐ Material Supplier (20%) ☐	

* **For EIC Requirements on this Project, refer to *EIC Requirements (EIC Reqs) Memo in the Bid Package**

INSTRUCTIONS TO BIDDERS FOR COMPLETING THE EQUITY IN CONTRACTING (EIC) UTILIZATION FORM

Complete Initial Information Section:

1. Enter Bidder firm name
2. Enter Project Title as it appears on the Specification
3. Enter Spec # as it appears on the Specification
4. State the Base Bid, which is the Bidder's bid amount, plus any alternates, additives, and deductive selected by the City. Do not include sales tax.

Complete Column "A": List all Certified Businesses with whom you will execute a subcontract if you are the successful Bidder. Provide a contact person for the Certified Business and the contact phone number.

Complete Column "B": State if the identified Certified Business is certified as an MBE, WBE, and/or SBE/DBE. **Note**: One Certified Business may count towards multiple requirements; check all applicable certifications

Complete Column "C": Specify the role of each listed Certified Business by checking Subcontractor or Material Supplier. **Note:** Each role counts differently towards EIC Utilization Requirements.

- Subcontractor: 100% of subcontract amount counts towards the EIC Utilization Requirement
- Material Supplier: 20% of supply expenditure amount counts towards the EIC Utilization Requirement
- **EXAMPLE** Material cost = $100,000 equates to ($100,000 X 20%) = $20,000 to be applied towards the EIC Requirements

Provide a description of the scope of work, services, or materials/supplies planned to be provided by each listed Certified Business. **Note:** The work description for each Certified Business listed on the EIC Utilization form must match the Certified Business's OMWBE Profile. This ensures that the Certified Business is able to perform the work scope or role for which they have been listed.

Complete Column "D": Enter the subcontract amount for each Certified Business listed. This amount is the price that Bidder and Certified Business have agreed upon **prior to submittal**.

ADDITIONAL IMPORTANT INSTRUCTIONS:

- Bidders must contact and solicit bids from Certified Businesses prior to listing them on the EIC Utilization Form. EIC staff will contact all listed Certified Businesses to verify that they have been contacted by Bidder regarding participation and subcontract amounts prior to being listed on this form. If the listed Certified Businesses have not been contacted prior to being listed on this form, Bidders will be deemed non-responsive.
- Include the completed EIC Utilization form with bid submittal. Incomplete, incorrect, or missing forms will render a bid nonresponsive.
- If awarded the Contract from the Specification bidders must execute subcontracts or supply agreements with Certified Businesses listed on the EIC Utilization Form. Failure to enter into an agreement with the Certified Businesses listed in Column A for at least the corresponding dollar amount listed in Column D, may result in penalties authorized by the Tacoma Municipal Code (TMC) 1.07.110.

CITY OF TACOMA

EQUITY IN CONTRACTING (EIC) PROGRAM REGULATIONS

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I. Introduction

Tacoma Municipal Code (TMC) Chapter 1.07 authorizes the City of Tacoma's Equity in Contracting (EIC) Program (Program) to address the historical underutilization and lack of participation of small, women and minority owned businesses in City contracts for supplies, services, and public works. TMC 1.07.040 authorizes the Community and Economic Development Department (CEDD) Director to adopt these administrative EIC Program Regulations (Regulations).

For questions, observations or recommendations related to these Regulations, please contact the EIC office at (253) 591-5826 or by email at EICoffice@cityoftacoma.org.

II. Objectives, Applicability and Overall Annual EIC Goal

The purpose of the EIC Program and of these Regulations is to advance the policy set forth in TMC 1.07.010: to "facilitate a substantial procurement, education, and mentorship program designed to promote equitable participation by historically underutilized businesses in the provision of supplies, services, and public works to the City." These Regulations are intended to aid and guide City staff, Certified Businesses, Contractors and Suppliers and other stakeholders, to ensure the Program is implemented clearly and consistently and to encourage, facilitate and assist the participation of Certified Businesses in City of Tacoma contracts.

The current annual EIC goal is 20%, which was reached by utilizing the City of Tacoma's most recent disparity study to determine the level of Certified Business participation in City Contracts expected in the absence of persistent effects of discrimination. The dollar value of all contracts awarded to or performed by Certified Businesses shall be counted toward the annual EIC goal. The EIC goal may be updated or changed in alignment with future disparity studies.

Currently the EIC Program is requiring participation by Certified Businesses only on contracts for public works. The Program is intended to apply to all City contracts for supplies, services, and public works (other than those contracts subject to exemption, exception, or waiver) and these Regulations will be updated as the City develops specific requirements and processes for Certified Business participation in contracts for supplies and services.

III. Definitions

Terms used in these Regulations shall have the following meanings unless defined differently in Tacoma Municipal Code Chapter 1.07, in which case the definition contained in TMC controls

"B2Gnow" is the system utilized by the City of Tacoma Equity in Contracting (EIC) Staff to track payments to Contractors and all Subcontractors on all Public Works and Improvements projects including Equity in Contracting (EIC) Requirements.

"Bid" means an offer submitted by a Respondent to furnish Supplies, Services, and/or Public Works in conformity with the Specifications and any other written terms and conditions included in a City request for such offer.

"Bidder" means an entity or individual who submits a Bid, Proposal or Quote. See also "Respondent."

"Certified Business" means an entity that has been certified as a Disadvantaged Business Enterprise ("DBE"), Small Business Enterprise ("SBE"), Minority Business Enterprise ("MBE"), Women Business Enterprise ("WBE"), or Minority and Women's Business Enterprise ("MWBE") by the Washington State Office of Minority and Women's Business Enterprise.

"City" means all Departments, Divisions, and agencies of the City of Tacoma.

"Change Order" means a reduction or change to the contracted scope of work potentially affecting the Equity in Contracting Requirements initially set on a project.

"Contract" means any type of legally binding agreement regardless of form or title that governs the terms and conditions for procurement and performance of Public Works and Improvements and/or Non-Public Works and Improvements, Supplies and Services.

"Contractor" or "Supplier" or "Bidder" means any Person that presents a Submittal to the City, enters into a Contract with the City, and/or performs all or any part of a Contract awarded by the City, for the provision of Public Works, or Non-Public Works and Improvements, Supplies or Services.

"Disparity Study" is a study that determines whether a government entity, either in the past or currently, engages in exclusionary practices in the solicitation and award of contracts to small, minority, women-owned, and disadvantaged business enterprises. The primary goal of the study is to assess, quantify, and evaluate the prevalence, significance (degree and weight) and scope of discrimination in the marketplace.

"Exception" or "Exemption" means the limited circumstances in which EIC Requirements do not apply or will not be applied to a Contract.

"EIC Manager" is the individual authorized by TMC to administer the Equity in Contracting Program.

"EIC Requirements" or **"Contract Requirements"** are the specified Requirements for Certified Business participation applied to a Contract using the EIC Requirements Setting Methodology.

"EIC Requirement Setting Methodology" is as defined in Appendix No. 1 to these Regulations.

"EIC Staff" means Equity in Contracting Program staff.

"Exception Request" means a request that no EIC requirements be applied to a Contract. See Appendix No. 3 to these Regulations.

"Goal" means the annual level of participation by Certified Businesses in City Contracts as established in The Tacoma Municipal Code TMC 1.07.020G, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations.

"LCPtracker" is the system used by the Local Employment and Apprenticeship Program (LEAP) Staff to monitor compliance with LEAP workforce utilization requirements and prevailing wage law.

"Non-Public Works and Improvements" means procurement of and contracting for Supplies and/or Services not solicited as Public Works.

"Notice of physical completion" means all physical work is done and the contractor has left the site. However, there may still be some outstanding paperwork or documentation remaining.

"Notice of substantial completion" means all physical work is complete except for punch list items. Only minor incidental work remains, such as minor corrections or repairs.

"Person" means individuals, companies, corporations, partnerships, associations, cooperatives, any other legally recognized business entity, legal representative, trustee, or receivers.

"Program Manager" means the individual appointed by the City's Community and Economic Development Director to administer the Program and these Regulations.

"Program Regulations" or "Regulations" means these Regulations.

"Project Delivery Team" refers to the City of Tacoma personnel working on the project from the Department or Division awarding and administering the Contract.

"Proposal" means a written offer to furnish Supplies or Services in response to a Request for Proposals. This term may be further defined in the Purchasing Policy Manual and/or in competitive solicitations issued by the City.

"Public Works (or "Public Works and Improvements)" means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the City, or that is by law a lien or charge on any property therein, as is defined in RCW Chapter 39.04 and as may be hereinafter amended. This term includes all Supplies, materials, tools, and equipment to be furnished in accordance with the Contract for such work, construction, alteration, repair, or improvement.

"Responsive or Responsible Bidder" is as defined within the City of Tacoma Purchasing Policy.

"Quote" means a competitively solicited written offer to furnish Supplies or Services by a method of procurement that is less formalized than a Bid or a Proposal.

"Respondent" means any entity or Person that provides a Submittal in response to a Request for Bids, Request for Proposals, Request for Qualifications, Request for Quotes or other request for information, as such terms are defined in TMC Chapter 1.06 and in Purchasing Policy and Procedures.

"Requirements" means the level of required participation by Certified Businesses in City Contracts as established by TMC Chapter 1.07, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations.

"Services" means non-Public Works and Improvements services and includes professional services, personal services, and purchased services, as such terms are defined in Chapter 1.06. TMC and in Purchasing Policy and Procedures.

"Specification" means the document and any subsequent addenda, including terms and conditions that describes the physical or functional characteristics, or the nature of the required Supplies, Services, or Public Works; commonly referred to as the Bid document or Bid Specification.

"Submittal" means Bids, Proposals, Quotes, Qualifications, or other information submitted in response to Requests for Bids, Requests for Proposals, Requests for Qualifications, Requests for Quotations, or other City requests for information, as such terms are defined in Chapter1.06 TMC and in Purchasing Policy and Procedures.

"Supplies" means materials, supplies, and other products that are procured and contracted for by the City.

"Tacoma Public Utilities Service Area" means any ZIP code in which Tacoma Public Utilities maintains infrastructure or provides retail services.

"Undue hardship" means an action that places a significant burden on a business.

"Waiver", with regards to the Post-Bid EIC Waiver Process, means a discretionary decision made by the City after Bids are received that EIC Requirements, in whole or in part, will not be applied to a Contract or Contracts.

IV. Exemptions or Exceptions to EIC Program Requirements

A. Contracts that are not competitively solicited by the City of Tacoma.

No EIC Requirements will apply to contracts awarded in the manners listed below. These contracts are exempt from EIC Requirements, and no Exception Request is needed to be completed:

1. Emergency (TMC 1.06.257.C). Situations where breakage or loss of equipment has or is about to interrupt necessary services, where public health or safety may be jeopardized, or when required by regulatory agency, or state law. If the supplies, services, or public works must be provided with such immediacy that neither the City nor the contractor can comply with the EIC Requirements, none will be applied. Such emergency will be deemed

documented whenever a waiver of competitive solicitation for emergency situations is authorized under Tacoma Municipal Code Chapter 1.06.257 or as may be hereinafter amended.

2. Sole Source **(**TMC 1.06.257.A and 1.06.258). If the supplies, services, or public works are available from only one feasible source, and subcontracting possibilities do not reasonably exist as documented by the Department or Division awarding the Contract. Such circumstance is documented by the approval of the Procurement and Payables Division Manager or delegee and for Contracts where the estimated cost is over $500,000 (excluding sales tax) by the approval of the Contracts and Awards (C&A) Board.

3. Not Practicable to Bid (TMC 1.06.257.B). An immediate and important need for proposed construction, installation, repair, materials, supplies, equipment, or services where the delay that would result from following competitive solicitation process would cause financial loss to the City or an interruption of vital services to the public. Such circumstance is documented by the approval of the Procurement and Payables Division Manager or delegee and for Contracts where the estimated cost is over $500,000 (excluding sales tax) by the approval of the C&A Board.

4. Direct Solicitation and Negotiation (1.06.256.B). Contracts for Professional or Personal Services, excluding architectural and engineering services. When City Manager or Director of Utilities or their delegees determine use of direct solicitation and negotiation process to be in the best interests of the City no EIC requirements will be applied to the resulting contract.

5. Government or Cooperative Purchasing.
The Contract is the result of a federal, state, or inter-local government purchasing agreement and the use of such agreement in lieu of a bid solicitation conducted by the City is in accordance with TMC Chapter 1.06 and Purchasing Policy and Procedures.

B. Lack of Certified Businesses

If it is determined there are an insufficient number of Certified Businesses to perform the work scopes listed in the Contract, no EIC Requirement will be applied. The process for requesting and approving an exception for lack of Certified Businesses is as follows:

1. If after Program review of a project using the established EIC Requirement setting methodology, it is determined by EIC Staff that there will be an insufficient number (3 or less) of Certified Business available to meet the requirement, EIC Staff sends an Exception Request to EIC Manager for review and approval.

2. If, after EIC Staff has set EIC Requirements on a project, the Project Delivery Team determines that additional information justifies an exception for lack of Certified Business, the Project Delivery Team sends an Exception Request via email to the EIC Team who will then forward it to the EIC Program Manager with necessary project background information for final review and approval.

C. Public Works and Improvement Projects with a Value of $150,000 or Less

EIC Requirements will not be set on public works and improvement projects with an engineer's estimate value of $150,000 or less. However, EIC Staff will collaborate with the Project Delivery Team to proactively outreach to Certified Businesses and provide technical assistance to encourage participation.

D. Documentation of Granted Exceptions

All exceptions must be documented in the Program's reporting and goal spreadsheet database. Analysis will be done by the EIC Manager to understand what measures the City can take to ensure that exceptions to the EIC Requirements occur only when necessary.

V. EIC Requirements for Contracts for Public Work

All City contracts for Public Work – except for projects with an engineer's estimate value of $150,000 or less – are subject to EIC Requirements. In no case will EIC Requirements exceed a total of 20 percent (20%) of the Engineer's estimate. If a contract is federally funded, any federal program supersedes the Equity in Contracting Program and these regulations.

A. EIC Pre-Award Process

1. EIC Contract Requirements Set

Using the EIC Requirements Setting Methodology contained in Appendix No. 1 to these Regulations, EIC Staff will set requirements for the use of Certified Businesses using two potential options.

Option 1: EIC Staff applies three (3) separate requirements (MBE, WBE, SBE) in accordance with the EIC Requirements Setting Methodology. Each stated Requirement must be fulfilled by using the specified category of Certified Business.

Option 2: If after setting the EIC Requirements, reviewing the OMWBE directory, and discussing with the Project Delivery Team, it is determined that fulfilling each requirement separately might present undue hardship for contractors, EIC staff will apply an overall EIC Requirement. The overall EIC Requirement is the sum of the 3 separate requirements initially established as a result of using the EIC Requirement Setting Methodology. Under Option 2 Bidders can use any combination of MBEs, WBEs, SBEs or DBEs to fulfill the overall EIC Requirement.

Staff guidance for determining if an overall EIC Requirement Option 2 is appropriate can be found in Appendix No. 2 to these Regulations.

After utilizing Option 1 or Option 2 to set the EIC Requirements, EIC staff will send an EIC Memo to the Project Delivery Team informing of the EIC Requirements for the project.

B. EIC Bid Review Process

Contracts for Public Work must be awarded to the lowest responsive and responsible Bidder. EIC Program Staff conducts a review of Submittals for EIC compliance.

1. Review for Bidder Responsiveness

i. Bids must list Certified Businesses. If a listed business is not certified with OMWBE as of the date of bid opening the bid will be recommended to be rejected as non-responsive.
ii. All sections of the EIC Utilization form located in Appendix No. 3 to these Regulations must be completed according to the stated instructions and the properly completed form must be included with bid submittal.
iii. Submittals that do not include a properly completed EIC Utilization form will be recommended by EIC Staff to be rejected as non-responsive bids. To be considered "completed", the required forms must be filled out with all the information required to be provided. No fields should be left incomplete or designated N/A or otherwise lacking a required response. EIC Staff reserves the right to make minor non-material corrections to the form, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.
iv. The work description for each Certified Business listed on the EIC Utilization form must match the Certified Business's OMWBE Profile. This ensures that the Certified Business is able to complete the work scope or role for which they have been listed.
v. Bidder must contact and solicit bids from Certified Businesses prior to listing them on the EIC Utilization Form and prior to bid submittal. EIC Staff will contact all listed Certified Businesses. If a listed Certified Business has not been contacted by the Bidder prior to being listed, the bid will be rejected as non-responsive.

2. Review for Bidder Responsibility

i. The EIC Utilization Form must demonstrate that the bidder has obtained enough EIC participation to meet or exceed the EIC Requirements for that contract. Submittals that do not meet or exceed the stated requirements will be recommended to be rejected as non-responsible bids.

3. Self-Performing Bidders

Bidders who are themselves Certified Businesses can meet the EIC requirements by self-performance. When a Certified Business is the prime bidder, an adjustment may be made to the EIC Requirements. In such cases, the self-performing Certified Business can be found to be a responsible bidder even if the bid did not satisfy all three stated EIC Requirements (SBE, MBE and WBE). For example, if a bidder is certified as an MBE and an SBE, the WBE Requirements may be deemed waived since the Contractor's self-performance as an MBE and an SBE achieves the total Requirement.

4. EIC Recommendation

i. If the apparent low bidder is deemed non-responsive or non-responsible, EIC Staff will review the next lowest bidder's submittal.

ii. Once EIC Staff has reviewed the EIC portion of the submittal, a bid review memo is sent to the Project Delivery Team to notify them of the status of the apparent low bidder and will include any recommendation to reject submittals as non-responsive or non-responsible.

VI. Post-Bid EIC Waiver Requests Process

Per TMC 1.07.060 (C), if, after receipt of submittals but prior to Contract award, it is determined that due to unforeseen circumstances (which may be demonstrated by bidder(s) failure to meet the stated Requirements) waiver of the stated EIC Requirements in whole or in part for the project is in the best interest of the City, the Director or Superintendent of the Project Delivery Team may request the stated EIC Requirements be waived in full or in part.

The waiver request must be made using the EIC Waiver Request Form shown in Appendix No. 4 to these Regulations and initiated by the applicable Director or Superintendent of the Project Delivery Team. The form is then forwarded to the Procurement and Payables Division Manager for review and signature,

followed by the City Manager or the Director of Utilities for review and signature. EIC Staff notifies the Project Team of the decision made.

If the Waiver Request is approved by the City Manager or Utilities Director, any new EIC Requirements will be equal to the EIC Utilization percentage listed on the successful bidder's EIC Utilization form (which could be zero).

If the Waiver Request is not approved by the City Manager or Utilities Director, the Project Delivery Team must re-bid the project or award to the next lowest bidder who has satisfied the stated EIC Requirements.

In all instances where a Waiver is approved by the City Manager or Utilities Director, analysis will be done by the EIC Manager to understand what measures the City can take to ensure that waivers of the EIC requirements are granted only when absolutely necessary.

VII. EIC Contract Monitoring and Compliance

All contracts will be monitored by the Program to ensure compliance with the stated EIC Requirements throughout the term of the Contract including as follows:

A. Coordination between Project Delivery Team and Program

During the term of the contract, the Project Delivery Team will include EIC Staff in the pre-bid, pre-construction, and progress meetings. Additionally, the Project Delivery Staff will send Contract & Award (C&A) Letters, Notice to Proceed and Notice of Physical Completion to EIC Staff.

B. Utilization of B2Gnow System

1. Once EIC Staff receives the Notice to Proceed, the Project is created in B2Gnow.
2. Once the Project has been created in B2Gnow by EIC Staff, a letter is automatically sent from B2Gnow to the Contractor and all Certified Businesses included in the project to notify them of the new project and what is expected of them in the B2Gnow System.
3. Contractors must utilize B2GNow by entering their monthly payment reports in the system. EIC Staff tracks EIC utilization by ensuring all payment reports are entered monthly by the Project Delivery Team and the Contractor and payments are confirmed by the Subcontractors.

C. B2Gnow Monitoring

1. Prompt Payment

For the full lifecycle of the project, on a monthly basis, EIC Staff must ensure the following actions have occurred in the B2Gnow system:

a. The Department/Division in charge of the contract has entered payment submitted to the Contractor.
b. The Contractor has entered payments submitted to all Certified Businesses.
c. The Certified Businesses have confirmed prompt receipt of payments from the Contractor for work performed. In compliance with the WA State Legislature Revised Code of WA (RCW) 39.04.250 (1) *, EIC Staff will verify that subcontractors are paid no later than 10 days after the Prime receives payment from the City of Tacoma Department/Division in charge of the contract.

*RCW 39.04.250 (1) "When payment is received by a contractor or subcontractor for work performed on a public work, the contractor or subcontractor shall pay to any subcontractor not later than ten days after the receipt of the payment, amounts allowed the contractor on account of the work performed by the subcontractor, to the extent of each subcontractor's interest therein.

2. If the above actions have not taken place or if there are any discrepancies in the system, EIC Staff will reach out to the parties involved via a notice generated from the B2Gnow System, via email or via phone call to address any discrepancies. Any notes related to the projects will be entered in the B2Gnow system.
3. For support using B2GNow, please contact EIC Staff at (253) 591-5826 or email at EICoffice@cityoftacoma.org.

D. Contractor Request for Certified Business Termination and Substitution

A Contractor's noncompliance by failure to utilize a Certified Business required by the Contract can be excused if Contractor has properly requested to terminate, reduce, or substitute the participation of a Certified Business on an awarded Contract and such request has been approved by the EIC Program consistent with TMC 1.07.080 A. The process for termination and substitution request and approval is initiated by the Contractor following the instructions outlined in the EIC Certified Business Termination and Substitution Form located in Appendix No. 5 to these Regulations.

Upon receipt of the completed EIC Certified Business Termination and Substitution Form, the Project Delivery Team will forward the request to EIC Staff along with supporting documentation received from the Contractor.

1. **EIC Staff will proceed with the following steps:**
    a. Review the request, including any response or objection from the Certified Business, to determine if the grounds for termination (or substitution) contained in TMC 1.07.080 A 1 (Certified Business refusal to execute necessary agreements with Contractor, Certified Business defaults on agreements with Contractor or other reasonable excuse) and the process required by these Regulations have been satisfied. EIC staff review will utilize the criteria for reasonable excuse contained in these Regulations.

    b. Contact the Certified Business(es) proposed to be terminated as well as the Certified Business(es) proposed to be substituted.

    c. If Contractor has indicated on the Certified Business Termination and Substitution Form that it does not have a substitution plan, EIC staff will review the Contractor's explanation for not proposing a substitute Certified Business according to the criteria in TMC 1.07.080 A 2. Where it is shown by Contractor that no other Certified Business is available as a substitute and that failure to secure participation by the Certified Business identified in the solicitation is not the fault of the Contractor, EIC staff will approve substitution with a non-Certified Business; provided, that, the substitution does not increase the dollar amount of the bid.

    d. If EIC staff determines that the process has been followed and that one or more of the grounds in TMC 1.07.080 have been satisfied to allow termination and substitution, the Contractor will be notified of the approval.

    e. Contractor has 3 business days of receipt of the approved termination request to confirm to EIC Staff that it has substituted with another Certified Business, or with a non-Certified Business if the EIC Program has approved.

If the Termination and Substitution Request submitted by the Contractor is denied, the Contractor must utilize the Certified Business on the project as initially listed on the EIC Utilization form or be found in noncompliance.

2. **Reasonable justifications for Termination**
    For purpose of the EIC Program, reasonable justifications for termination are included in this list below but not limited to:

    a. The listed Certified Business refuses or fails to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that reasonable excuse does not exist if the failure of the Certified Business to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor.
    b. Failure or refusal of the Certified Business to perform work for reasons other than contract term or pricing disputes.

c. The listed Certified Business fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements.
d. The listed Certified Business is ineligible to work on City of Tacoma projects because of suspension or debarment.
e. The listed Certified Business voluntarily withdraws from the project and provides The City of Tacoma written notice of its withdrawal.
f. Death or disability of the principal of the Certified Business rendering it unable to perform the work.
g. Dissolution of the Certified Business.
h. A change in scope of the contract requested by the City which removes the work scope for the Certified Business from the project.
i. The Certified Business does not execute an offered contract that reflects the terms and pricing agreed upon as a condition of participation in the project. The Contractor must provide evidence that the Certified Business failed to execute a contract offered which reflected such agreements, after the Certified Business was given adequate time to execute the offered contract.

3. Decertification

When a Certified Business is "decertified" by OMWBE the participation of that Certified Business shall continue to count as EIC participation so long as the subcontract with the Certified Business was executed prior to the effective date of decertification.

If the Certified Business did not have an executed contract with the Contractor at effective date of decertification, the Contractor must demonstrate to the satisfaction of the Project Delivery team and to the EIC Program that it has substituted a different Certified Business.

VIII. NON-COMPLIANCE: FINDING OF VIOLATION AND PENALTIES

A. Circumstances for finding a Contractor in Violation

The following circumstances, if found by the EIC Program Manager, are grounds for a determination by the Community and Economic Development Department (CEDD) Director of Contractor violation and a recommendation by the CED Director to the City Manager or the Director of Utilities that a penalty be imposed consistent with TMC 1.07.010:

1. A Contractor's failure to utilize a Certified Business required by an awarded Contract (unless the Certified Business participation is properly terminated or substituted by application of the process contained in these Regulations) for at least the corresponding dollar amount listed on the submitted EIC Utilization Form.

2. A Contractor's failure to utilize the B2Gnow system in the manner required by these Regulations. Before a violation will be found for Contractor's failure to utilize B2Gnow the following process steps will be taken:

    a. If a Contractor does not report payment in the B2Gnow system within the first 2 months of the start of the project, EIC Staff will give the Contractor a verbal notice, followed by an email offering assistance with B2Gnow if needed.

    b. If in the third month following the start of the project Contractor still does not report payment in the B2Gnow system EIC Staff will send a second notice via email with a copy to the Project Delivery Team.

    c. If the Contractor has failed to report payment in the B2Gnow system within 14 days of the second notice, a third notice will be sent with a copy to the Project Delivery Team.

    d. If after three notices, Contractor fails to report payment in the B2Gnow system, EIC Staff will notify the Project Delivery Team that the EIC Staff intends to recommend to the City Manager or Utilities Director that a violation be found, and a penalty imposed.

3. A Contractor's failure to pay their subcontractor within 10 days after receipt of payment per RCW 39.04.250 (1)

    i. If a contractor fails to pay their subcontractor within 10 days, EIC Staff will send 3 notices (via email).

ii. If after three notices Contractor fails to pay their subcontractor, EIC Staff will notify the Project Delivery Team that the EIC Staff intends to recommend to the City Manager or Utilities Director that a violation be found, and a penalty imposed.

B. Contractor Non-Compliance, Finding of Violation and Enforcement

If the EIC Program Manager, in collaboration with the Project Delivery Team, determines a Contractor is non-compliant with the EIC Requirements of the Contract or any other requirements contained in TMC Chapter 1.07 or these Regulations and therefore in violation of the EIC Program requirements, the following process for enforcement will be followed:

1. EIC Staff will send a Notice of Violation to the Contractor via USPS Certified Mail®, with a courtesy copy sent to Contractor via email and with a copy to the Project Delivery Team. The Notice of Violation will specify the non-compliance that is the basis for the finding of violation and will state the City's intent to exercise all applicable remedies, including penalties authorized by TMC 1.07.110.

2. The Notice of Violation will specify that the Contractor can appeal the finding of Violation to the Hearing Examiner pursuant to Chapter 1.23 TMC and will state that, unless appealed or remedied, each specified violation becomes final on the 10th business day from the day the Notice has been received by the Contractor.

3. The Notice of Violation will inform the Contractor that the Violation may be remedied, and no penalty will be sought, if, within 10 business days of the date of the Notice of Violation, the Contractor achieves compliance or submits a plan to achieve compliance and receives EIC Staff approval of the plan. A document for guidance on how to achieve compliance can be located in Appendix No. 6 to these Regulations.

4. Compliance plans shall be submitted to EIC Staff and reviewed by EIC Staff and the Project Delivery Team. EIC Staff will recommend valid compliance plans to the CEDD Director for approval.

5. If the Contractor does not respond to the notice by achieving compliance or by appealing the violation within 10 days or if Contractor's timely submitted compliance plan is not approved, the EIC Program Manager in collaboration with the CEDD Director and the Project Delivery Team will request the City Manager or Director of Utilities to impose one or more of the following penalties contained in TMC 1.07.110 A.

    a. Publish notice of the contractor's noncompliance on the City of Tacoma Equity in Contracting webpage.
    b. Cancel, terminate, or suspend the contractor's contract, or portion thereof.
    c. Withhold funds due contractor until compliance is achieved; and/or

d. Disqualification of eligibility for future contract awards by the City (debarment) per Section 1.06.279 TMC.
e. Other appropriate recommended penalty

6. Approval of City Manager or Director of Utilities to Impose Penalties

a. The EIC Program Manager and CEDD Director will utilize the Prime Contractor Sanction Request Form found in Appendix No. 6 to these Regulations to inform the City Manager or the Director of Utilities that a Notice of Violation has become final (not appealed, not remedied by compliance or an approved compliance plan) and request the City Manager or Director of Utilities to approve the recommended penalty authorized by TMC 1.07.110 and/or to impose any different or additional appropriate penalty.
b. If the request for penalty is approved, the EIC Staff will notify the Contractor and the Project Delivery Team of the imposition of the penalty by sending the Prime Contractor Notice of Violation form contained in Appendix No. 7 to these Regulations to the Contractor by US Mail and with a courtesy copy sent by email. The Notice of Penalty form will inform the Contractor that the stated penalty becomes effective on the tenth business day following receipt of the Notice of Penalty unless Contractor appeals the penalty to the Hearing Examiner pursuant to Chapter 1.23 TMC or achieves compliance.

7. Publication of Contractor's Non-Compliance

If the penalty of publication of notice of Contractor's noncompliance (TMC 1.07.110 A 2) is imposed, the non-compliant Contractor's firm name and the nature of the violation will be posted on the City of Tacoma Equity in Contracting Program website Equity in Contracting – City of Tacoma.

8. Cancellation of Penalty upon approved Contractor's Correction of Violation

a. A Contractor has 10 business days from receipt of a Notice of Penalty to achieve compliance or submit a plan to achieve compliance. EIC Staff in consultation with the Project Delivery Team will determine if compliance is achieved or if the compliance plan is recommended for approval by the CEDD Director.

b. If it is determined that the Contractor has come into compliance with the EIC Requirements, or has an approved plan to achieve compliance, the penalty may be cancelled at the discretion of the CEDD Director.

c. If a penalty is cancelled, other applicable steps will follow. For example, if the Contract had been suspended, it will be resumed. If notice of Contractor's violation has been published, the notice will be removed from City's website. If funds have been withheld, payments will be resumed etc.

d. If Contractor's compliance plan is not approved, the penalty will remain in place, however, EIC Staff will continue to work with Contractor and Project Delivery Team to attempt to achieve compliance.

IX. EIC Project Closeout Process

Upon receipt of notice from the Project Delivery Team that the project is physically completed, EIC Staff will:

A. Run B2Gnow Contract Summary Report to ensure that EIC Contract Requirements have been satisfied.
B. Check with Local Employment & Apprenticeship Training Program (LEAP) Staff to ensure LEAP Requirements have been satisfied and the project is ready to close on LCPtracker.
C. If EIC Contract Requirements are not met, EIC Staff will contact the Contractor via email with copy to the Project Delivery Team and request the Contractor provide an explanation in writing of the discrepancy between EIC Contract Requirements and the final outcomes via email to the Project Delivery Team and to EIC Staff at EICOffice@cityoftacoma.org. EIC Staff and the Project Delivery Team will review and file explanation in B2Gnow files.
D. If Contract Requirements are not met by the final outcomes and Contractor's explanation for the discrepancy is not satisfactory EIC Staff and the Project Delivery Team may recommend a violation be found and penalty requested.
E. If Contract Requirements are met, send email to Contractor from EICOffice@cityoftacoma.org with a copy to the Project Delivery Team.

X. Certified Business Complaint Process

A. A Certified Business may submit a complaint regarding any EIC related issues utilizing three options listed below:

- By sending an email to the EIC Staff at EICoffice@cityoftacoma.org.
- By filling out the EIC Complaint Form available on The City of Tacoma Equity in Contracting webpage. See EIC Complaint Form as shown at Appendix No. 9 to these Regulations.
- By calling the EIC Office line at (253) 591-5630

When a complaint has been received, EIC Staff will take the following steps:

- Record the complaint in the EIC Complaint log Database
- Send a message to the complainant acknowledging the receipt and recording of the complaint and informing complainant that an investigation will take place.
- As deemed appropriate, perform an investigation
- If an investigation is conducted, a report will be produced including a timeline of events and findings.
- Submit any final report to the EIC Program Manager for action as appropriate.

APPENDICES

Available upon request to EICOffice@cityoftacoma.org

1. **EIC Requirement Setting Methodology**
2. **Guidance on selecting Option 2: EIC overall Requirements**
3. **EIC Utilization Form**
4. **EIC Post Submittal Waiver Request Form**
5. **EIC Certified Business Termination and Substitution Request**
6. **EIC Guidance on Compliance Achievement Plan**
7. **Notice of Contractor's Violation Form**
8. **EIC Sanction(s) Request Form**
9. **Subcontractor Complaint Form**

TITLE 1

Administration and Personnel

CHAPTER 1.07
EQUITY IN CONTRACTING

Sections:
1.07.010 Policy and purpose.
1.07.020 Definitions.
1.07.030 Discrimination prohibited.
1.07.040 Program administration.
1.07.050 *Repealed.*
1.07.060 Program requirements.
1.07.070 Evaluation of submittals.
1.07.080 Contract compliance.
1.07.090 Program monitoring.
1.07.100 Enforcement.
1.07.110 Remedies.
1.07.120 Unlawful acts.
1.07.130 Severability.
1.07.140 Review of program.

1.07.010 Policy and purpose.

It is the policy of the City of Tacoma that citizens be afforded an opportunity for full participation in our free enterprise system and that historically underutilized business enterprises shall have an equitable opportunity to participate in the performance of City contracts. The City finds that in its contracting for supplies, services and public works, there has been historical underutilization of small and minority-owned businesses located in certain geographically and economically disfavored locations and that this underutilization has had a deleterious impact on the economic well-being of the City. The purpose of this chapter is to remedy the effects of such underutilization through use of narrowly tailored contracting requirements to increase opportunities for historically underutilized businesses to participate in City contracts. It is the goal of this chapter to facilitate a substantial procurement, education, and mentorship program designed to promote equitable participation by historically underutilized businesses in the provision of supplies, services, and public works to the City. It is not the purpose of this chapter to provide any person or entity with any right, privilege, or claim, not shared by the public, generally, and this chapter shall not be construed to do so. This chapter is adopted in accordance with Chapter 35.22 RCW and RCW 49.60.400.

(Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.020 Definitions.

Terms used in this chapter shall have the following meanings unless defined elsewhere in the Tacoma Municipal Code ("TMC"), or unless the context in which they are used clearly indicates a different meaning.

1.07.020.B

A. "Bid" means an offer submitted by a Respondent to furnish Supplies, Services, and/or Public Works in conformity with the Specifications and any other written terms and conditions included in a City request for such offer.

B. "Bidder" means an entity or individual who submits a Bid, Proposal or Quote. See also "Respondent."

1.07.020.C

"Certified Business" means an entity that has been certified as a Disadvantaged Business Enterprise ("DBE"), Small Business Enterprise ("SBE"), Minority Business Enterprise ("MBE"), Women Business Enterprise ("WBE"), or Minority and Women's Business Enterprise ("MWBE") by the Washington State Office of Minority and Women's Business Enterprise.

"City" means all Departments, Divisions and agencies of the City of Tacoma.

"Contract" means any type of legally binding agreement regardless of form or title that governs the terms and conditions for provision of supplies, services, or public works to the City. Contracts include the terms and conditions found in Specifications, Bidder or Respondent Submittals, and purchase orders issued by the City.

"Contractor" means any Person that presents a Submittal to the City, enters into a Contract with the City, and/or performs all or any part of a Contract awarded by the City, for the provision of Public Works, or Non-Public Works and Improvements, Supplies or Services.

1.07.020.G

"Goals" means the annual level of participation by Certified Businesses in City Contracts as established in this chapter, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations. Goals or requirements for individual Contracts may be adjusted as provided for in this chapter or in regulations and shall not be construed as a minimum for any particular Contract or for any particular geographical area.

1.07.020.N

Reserved.

1.07.020.P

"Person" means individuals, companies, corporations, partnerships, associations, cooperatives, any other legally recognized business entity, legal representative, trustee, or receivers.

"Program Manager" means the individual appointed, from time to time, by the City's Community and Economic Development Director to administer the Program Regulations.

"Program Regulations" means the written regulations and procedures adopted pursuant to this chapter for procurement of Supplies, Services and Public Works.

"Proposal" means a written offer to furnish Supplies or Services in response to a Request for Proposals. This term may be further defined in the Purchasing Policy Manual and/or in competitive solicitations issued by the City.

"Public Works (or "Public Works and Improvements)" means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the City, or that is by law a lien or charge on any property therein. This term includes all Supplies, materials, tools, and equipment to be furnished in accordance with the Contract for such work, construction, alteration, repair, or improvement.

1.07.020.Q

"Quote" means a competitively solicited written offer to furnish Supplies or Services by a method of procurement that is less formalized than a Bid or a Proposal. This term may be further defined in the Purchasing Policy Manual.

1.07.020.R

"Respondent" means any entity or Person, other than a City employee, that provides a Submittal in response to a request for Bids, Request for Proposals, Request for Qualifications, request for quotes or other request for information, as such terms are defined in Section 1.06.251 TMC. This term includes any such entity or Person whether designated as a supplier, seller, vendor, proposer, Bidder, Contractor, consultant, merchant, or service provider that; (1) assumes a contractual responsibility to the City for provision of Supplies, Services, and/or Public Works; (2) is recognized by its industry as a provider of such Supplies, Services, and/or Public works; (3) has facilities similar to those commonly used by Persons engaged in the same or similar business; and/or (4) distributes, delivers, sells, or services a product or performs a Commercially Useful Function.

1.07.020.S

"Services" means non-Public Works and Improvements services and includes professional services, personal services, and purchased services, as such terms are defined in Section 1.06.251 TMC and/or the City's Purchasing Policy Manual.

"Submittal" means Bids, Proposals, Quotes, qualifications or other information submitted in response to requests for Bids, Requests for Proposals, Requests for Qualifications, requests for Quotations, or other City requests for information, as such terms are defined in Section 1.06.251 TMC.

"Supplies" means materials, Supplies, and other products that are procured by the City through a competitive process for either Public Works procurement or Non-Public Works and Improvements procurement unless an approved waiver has been granted by the appropriate authority.

1.07.020.T

"Tacoma Public Utilities Service Area" means any ZIP code in which Tacoma Public Utilities maintains infrastructure or provides retail services.

1.07.020.W

"Waiver" means a discretionary decision by the City that the one or more requirements of this chapter will not be applied to a Contract or Contracts.

(Ord. 28931 Ex. A; passed Jan. 9, 2024: Ord. 28766 Ex. A; passed June. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28274 Ex. A; passed Dec. 16, 2014: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.030 Discrimination prohibited.

A. No person that is engaged in the construction of public works for the City, engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services to the City, shall discriminate against any other person on the basis of race, religion, color, national origin or ancestry, sex, gender identity, sexual orientation, age, marital status, familial status, or the presence of any sensory, mental or physical disability, or "pregnancy outcomes" under TMC 1.29.040, in employment. Such discrimination includes the unfair treatment or denial of normal privileges to a person as manifested in employment upgrades, demotions, transfers, layoffs, termination, rates of pay, recruitment of employees, or advertisement for employment.

B. The violation of the terms of RCW 49.60 or Chapter 1.29 TMC by any person that is engaged in the construction of public works for the City, is engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services shall result in the rebuttable presumption that the terms of this chapter have also been violated. Such violation may result in termination of any City contract the violator may have with the City and/or the violator's ineligibility for further City Contracts.

(Ord. 28859 Ex. A; passed Nov. 22, 2022: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.040 Program administration.

A. The Community and Economic Development Director, or their designated Program Manager, shall be responsible for administering this chapter and obtaining compliance with respect to contracts entered into by the City and/or its contractors. It shall be the duty of the Director to pursue the objectives of this chapter by conference, conciliation, persuasion, investigation, or enforcement action, as may be necessary under the circumstances. The Director is authorized to implement an administrative and compliance program to meet these responsibilities and objectives.

B. The Director is hereby authorized to adopt and to amend administrative regulations known as the Program Regulations, to properly implement and administer the provisions of this chapter. The Program Regulations shall be in conformance with City of Tacoma policies and state and federal laws and be designed to encourage achievement of the Goals set forth herein.

(Ord. 28766 Ex. A; passed June. 8, 2021: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.050 *Repealed by Ordinance No. 28931. Approval as a Certified Business.*

(Repealed by Ord. 28931 Ex. A; passed Jan. 9, 2024: Ord. 28766 Ex. A; passed June. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28274 Ex. A; passed Dec. 16, 2014: Ord. 28147 Ex. A; passed May 7, 2013: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.060 Program requirements.

A. The program shall meet the following requirements:

1. Establishment of Annual Goals.

The Program Regulations adopted pursuant to this chapter shall state reasonably achievable cumulative annual goals for utilization of Certified Businesses in the provision of supplies, services, and public works procured by the City. Cumulative annual goals for the participation of Certified Businesses in City contracts shall be based on the number of qualified Certified Businesses operating within the Tacoma Public Utilities Service Area. The dollar value of all contracts awarded by the City to Certified Businesses in the procurement of supplies, services, and public works shall be counted toward the accomplishment of the applicable goal.

2. Application to Contracts.

The Program Manager shall establish department/division specific requirements for Certified Business participation in City contracts in accordance with this chapter and the Program Regulations.

B. Exceptions:

City departments/divisions or the Program Manager may request an exception to one or more of the requirements of this chapter as they apply to a particular Contract or Contracts. Exceptions may be granted in any one or more of the following circumstances:

1. Emergency:

The supplies, services and/or public works must be provided with such immediacy that neither the City nor the contractor can comply with the requirements herein. Such emergency will be deemed documented whenever a waiver of competitive solicitation for emergency situations is authorized under Tacoma Municipal Code Chapter 1.06.257 or as may be hereinafter amended.

2. Not Practicable:

The Contract involves special facilities or market conditions or specially tailored or performance criteria-based products, such that compliance with the requirements of this chapter would cause financial loss to the City or an interruption of vital services to the public. Such circumstances must be documented by the department/division awarding the Contract and approved by the senior financial manager or, for Contracts where the estimated cost is over $500,000 (excluding sales tax), approved by the Board of Contracts and Awards ("C&A Board").

3. Sole source:

The supplies, services, and/or public works are available from only one feasible source, and subcontracting possibilities do not reasonably exist as documented by the department/division awarding the Contract and approved by the senior financial manager or, for Contracts where the estimated cost is over $500,000 (excluding sales tax), approved by the C&A Board.

4. Government purchasing.

The Contract or Contracts are the result of a federal, state or inter-local government purchasing agreement and the use of such agreement in lieu of a bid solicitation conducted by the City is approved by the senior financial manager.

5. Lack of Certified Businesses:

An insufficient number of qualified contractors exist to create any utilization opportunities as documented by the Program Manager.

C. Waiver:

If, after receipt of Submittals but prior to Contract award, it is determined that due to unforeseen circumstances, a full or partial waiver of requirements is in the best interests of the City, the Director or Superintendent of the department/division awarding the Contract may request in writing that the City Manager or designee, on behalf of General Government, or the Director of Utilities or designee, on behalf of the Department of Public Utilities, approve such waiver..

Waivers may be granted only after determination by the City Manager or Director of Utilities that compliance with the requirements of this chapter would impose unwarranted economic burden on, or risk to, the City of Tacoma as compared with the degree to which the purposes and policies of this chapter would be furthered by requiring compliance.

(Ord. 28931 Ex. A; passed Jan. 9, 2024: Ord. 28766 Ex. A; passed June. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.070 Evaluation of submittals.

A. All submittals for supplies, services, or public works and improvements contracts shall be evaluated for attainment of the Certified Business requirements established for that contract in accordance with this chapter and the Program Regulations.

B. The determination of Certified Business usage and the calculation of Certified Business requirements per this section shall include the following considerations:

1. General.

The dollar value of the Contract awarded by the City to a Certified Business in the procurement of supplies, services, or public works shall be counted toward achievement of the annual goal.

2. Supplies.

A Contractor may receive credit toward attainment of the Certified Business requirement(s) applicable to the Contract for expenditures for supplies obtained from a Certified Business; provided such Certified Business assumes the actual and contractual responsibility for delivering the supplies with its resources. The contractor may also receive credit toward attainment of the Certified Business goal for the amount of the commission paid to a Certified Business resulting from a supplies contract with the City; provided the Certified Business performs a commercially useful function in the process.

3. Services and Public Works subcontracts.

Any Contract awarded to a Certified Business or a bidder that utilizes a Certified Business as a subcontractor shall receive credit toward attainment of the Certified Business requirement(s) applicable to the Contract based on the percentage of

Certified Business usage stated in the bid. A contractor that utilizes a Certified Business as a subcontractor to provide services or public works shall receive a credit toward the contractor's attainment of the Certified Business requirement applicable to the contract based on the value of the subcontract with the Certified Business.

C. Evaluation of competitively solicited submittals for public works and improvements and for services when a requirement has been established for the contract to be awarded shall be as follows:

1. When contract award is based on price.

The lowest priced bid submitted by a responsive and responsible bidder will be reviewed to determine if it meets the requirement. Certified Businesses may self-count utilization or self-performance on such bids if they will perform the work for the scope the requirement is based upon. The Program Regulations may establish further requirements and procedures for self-utilization or self-performance by a bidder who is a Certified Business.

a. If the low bidder meets the stated Certified Business requirements, the bid shall be presumed the lowest and best responsible bid for contract award.

b. Any bidder that does not meet the stated Certified Business requirements shall be considered a non-responsible bidder unless a waiver of one or more of the requirements of this chapter is granted, in the City's sole discretion, pursuant to the criteria and processes in Tacoma Municipal Code 1.07.060.C.

2. When contract award is based on qualifications or other performance criteria in addition to price, solicitations shall utilize a scoring system that promotes participation by certified contractors. The Program Regulations may establish further requirements and procedures for final selection and contract award, including:

a. Evaluation of solicitations for Architectural and Engineering (A&E) services;

b. Evaluation and selection of submittals in response to requests for proposals; and

c. Selection of contractors from pre-qualified roster(s).

(Ord. 28931 Ex. A; passed Jan. 9, 2024: Ord. 28766 Ex. A; passed Jun. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.080 Contract compliance.

A. The contractor awarded a contract based on Certified Business participation shall, during the term of the contract, comply with the requirements established in said contract. To ensure compliance with this requirement following contract award, the following provisions apply:

1. Any substitutions for or failure to utilize or termination of Certified Businesses projected to be used must be approved in advance by the Program Manager. Substitution of one Certified Business with another shall be allowed where there has been a refusal to execute necessary agreements by the original Certified Business, a default on agreements previously made or other reasonable excuse; provided that the substitution does not increase the dollar amount of the bid.

2. Where it is shown that no other Certified Business is available as a substitute and that failure to secure participation by the Certified Business identified in the solicitation is not the fault of the respondent, substitution with a non-Certified Business shall be allowed; provided, that, the substitution does not increase the dollar amount of the bid.

3. If the Program Manager determines that the contractor has not reasonably and actively pursued the use of replacement Certified Business, such contractor shall be deemed to be in non-compliance.

B. Record Keeping.

All contracts shall require contractors to maintain relevant records and information necessary to document compliance with this chapter and the contractor's utilization of Certified Businesses, and shall include the right of the City to inspect such records.

(Ord. 28931 Ex. A; passed Jan. 9, 2024: Ord. 28766 Ex. A; passed Jun. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.090 Program monitoring.

A. An Advisory Committee shall monitor compliance with all provisions of this chapter and the related Regulations. The Program Manager shall establish procedures to collect data and monitor the effect of the provisions of this chapter to assure, insofar as is practical, that the remedies set forth herein do not disproportionately favor one or more racial, gender, ethnic, or other protected groups, and that the remedies do not remain in effect beyond the point that they are required to eliminate the

effects of under utilization in City contracting, unless such provisions are supported by a Disparity Study. The Program Manager shall have the authority to obtain from City departments/divisions, respondents, and contractors such relevant records, documents, and other information as is reasonably necessary to determine compliance.

B. The Program Manager shall submit an annual report to the Community and Economic Development Director, Director of Utilities, and the City Manager detailing performance of the program. The report shall document Certified Business utilization levels, waivers, proposed modifications to the program, and such other matters as may be specified in the Program Regulations.

(Ord. 28766 Ex. A; passed Jun. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.100 Enforcement.

The Director, or designee, may investigate the employment practices of contractors to determine whether or not the requirements of this chapter have been violated. Such investigation shall be conducted in accordance with the procedures established in the Program Regulations.

(Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.110 Penalties.

A. Upon receipt of a determination of contractor violation by the Program Manager, the City Manager or Director of Utilities, as appropriate, may take the following actions, singly or together, as appropriate:

1. Forfeit the contractor's bid bond and/or performance bond;

2. Publish notice of the contractor's noncompliance;

3. Cancel, terminate, or suspend the contractor's contract, or portion thereof;

4. Withhold funds due contractor until compliance is achieved;

5. Recommend disqualification of eligibility for future contract awards by the City (debarment) per Section 1.06.279 TMC; and/or

6. Any other appropriate action, including a monetary penalty as such penalties may be specified in Program Regulations.

B. Prior to imposing of any of the foregoing penalties, the City shall provide written notice to the contractor specifying the violation and the City's intent to exercise such remedy or remedies. The notice shall provide that each specified remedy becomes effective within ten business days of receipt unless the contractor appeals said action to the Hearing Examiner pursuant to Chapter 1.23 TMC.

C. When non-compliance with this chapter or the Program Regulations has occurred, the Program Manager and the department/division responsible for enforcement of the contract may allow continuation of the contract upon the contractor's development of a plan for compliance acceptable to the Director.

(Ord. 28931 Ex. A; passed Jan. 9, 2024: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.120 Unlawful acts.

It shall be unlawful for any Person to willfully prevent or attempt to prevent, by intimidation, threats, coercion, or otherwise, any Person from complying with the provisions of this chapter.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.130 Severability.

If any section of this chapter or its application to any Person or circumstance is held invalid by a court of competent jurisdiction, then the remaining sections of this chapter, or the application of the provisions to other Persons or circumstances, shall not be affected.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.140 Review of program.

This chapter shall be in effect until such point in time that the City Council shall determine, after third party analyses, whether substantial effects or lack of opportunity of Certified Businesses remain true in the relevant market and whether, and for how long, some or all of the requirements of this chapter should remain in effect.

The Department Director or their designee shall review this chapter with City Council standing committee on a biennial basis in order to determine whether adjustments or revisions are required and present those proposals to the City Council for approval.

(Ord. 28931 Ex. A; passed Jan. 9, 2024: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28274 Ex. A; passed Dec. 16, 2014: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

RECORD OF PRIOR CONTRACTS

NAME_____ **ADDRESS**_____

Type of Work_____ **Specification No.** _____

Beginning Date	Completion Date	Contract With	Contact Person Phone #	Amount of Contract

Remarks: _____

APPENDIX C

Insurance Requirements
Contract
Performance Bond
Payment Bond
General Release Form

CITY OF TACOMA
INSURANCE REQUIREMENTS FOR CONTRACTS

This Insurance Requirements shall serve as an attachment and/or exhibit form to the Contract. The Agency entering a Contract with City of Tacoma, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise referred to as "Contractor".

1. GENERAL REQUIREMENTS

The following General Requirements apply to Contractor and to Subcontractor(s) performing services and/or activities pursuant to the terms of this Contract. Contractor acknowledges and agrees to the following insurance requirements:

1.1. Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the City of Tacoma.

1.2. Contractor shall keep in force during the entire term of the Contract, at no expense to the City of Tacoma, the insurance coverage and limits of liability listed below and for Thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.

1.3. Liability insurance policies, except for Professional Liability and Workers' Compensation, shall:

- 1.3.1. Name the City of Tacoma and its officers, elected officials, employees, and agents as **additional insured**
- 1.3.2. Be considered primary and non-contributory for all claims with any insurance or self-insurance or limits of liability maintained by the City of Tacoma
- 1.3.3. Contain a "Waiver of Subrogation" clause in favor of City of Tacoma
- 1.3.4. Include a "Separation of Insureds" clause that applies coverage separately to each insured and additional insured
- 1.3.5. Name the "City of Tacoma" on certificates of insurance and endorsements and not a specific person or department
- 1.3.6. Be for both ongoing and completed operations using Insurance Services Office (ISO) form CG 20 10 04 13 and CG 20 37 04 13 or the equivalent
- 1.3.7. Be satisfied by a single primary limit or by a combination of a primary policy and a separate excess umbrella

1.4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements below. Verification of coverage shall include:

- 1.4.1. An ACORD certificate or equivalent
- 1.4.2. Copies of requested endorsements

1.5. Contractor shall provide to City of Tacoma Procurement & Payable Division, prior to the execution of the Contract, Certificate(s) of Insurance and endorsements from the insurer certifying the coverage of all insurance required herein. Contract or Permit number and the City of Tacoma Department must be shown on the Certificate of Insurance.

1.6. A renewal Certificate of Insurance shall be provided electronically prior to coverage expiration via email sent annually to coi@cityoftacoma.org.

1.7. Contractor shall send a notice of cancellation or non-renewal of this required insurance within Thirty (30) calendar days to coi@cityoftacoma.org.

1.8. “Claims-Made” coverages, except for pollution coverage, shall be maintained for a minimum of three years following the expiration or earlier termination of the Contract. Pollution coverage shall be maintained for six years following the expiration of the Contract. The retroactive date shall be prior to or coincident with the effective date of the Contract.

1.9. Each insurance policy must be written by companies licensed or authorized (or issued as surplus line by Washington surplus line broker) in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best key rating guide.

1.10. Contractor shall not allow any insurance to be cancelled, voided, suspended, or reduced in coverage/limits, or lapse during any term of this Contract. Otherwise, it shall constitute a material breach of the Contract.

1.11. Contractor shall be responsible for the payment of all premiums, deductibles and self-insured retentions, and shall indemnify and hold the City of Tacoma harmless to the extent such a deductible or self-insured retained limit may apply to the City of Tacoma as an additional insured. Any deductible or self-insured retained limits in excess of Twenty Five Thousand Dollars ($25,000) must be disclosed and approved by City of Tacoma Risk Manager and shown on the Certificate of Insurance.

1.12. City of Tacoma reserves the right to review insurance requirements during any term of the Contract and to require that Contractor make reasonable adjustments when the scope of services changes.

1.13. All costs for insurance are included in the initial Contract and no additional payment will be made by City of Tacoma to Contractor.

1.14. Insurance coverages specified in this Contract are not intended and will not be interpreted to limit the responsibility or liability of Contractor or Subcontractor(s).

1.15. Failure by City of Tacoma to identify a deficiency in the insurance documentation or to verify coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor’s obligation to maintain such insurance.

1.16. If Contractor is a government agency or self-insured for any of the above insurance requirements, Contractor shall be liable for any self-insured retention or deductible portion of any claim for which insurance is required. A certification of self-insurance shall be attached and incorporated by reference and shall constitute compliance with this Section.

2. SUBCONTRACTORS

It is Contractor's responsibility to ensure that each subcontractor obtain and maintain adequate liability insurance coverage that applies to the service provided. Contractor shall provide evidence of such insurance upon City of Tacoma’s request. Failure of any subcontractor to comply with insurance requirements does not limit Contractor’s liability or responsibility.

3. REQUIRED INSURANCE AND LIMITS

The insurance policies shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve Contractor from liability in excess of such limits.

3.1 Commercial General Liability Insurance

Contractor shall maintain Commercial General Liability Insurance policy with limits not less than One Million Dollars ($1,000,000) each occurrence and Two Million Dollars ($2,000,000) annual aggregate. This policy shall be written on ISO form CG 00 01 04 13 or its equivalent and shall include product liability especially when a Contract is solely for purchasing supplies. It includes Products and Completed Operations for three years following the completion of work related to performing construction services. It shall be endorsed to include: A per project aggregate policy limit (using ISO form CG 25 03 05 09 or equivalent endorsement)

3.2 Workers' Compensation

Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington, as well as any other similar coverage required for this work by applicable federal laws of other states. Contractor must comply with their domicile State Industrial Insurance laws if it is outside the State of Washington.

3.3 Employers' Liability Insurance

Contractor shall maintain Employers' Liability coverage with limits not less than One Million Dollars ($1,000,000) each employee, One Million Dollars ($1,000,000) each accident, and One Million Dollars ($1,000,000) policy limit.

3.4 Other Insurance

Other insurance may be deemed appropriate to cover risks and exposures related to the scope of work or changes to the scope of work required by City of Tacoma. The costs of such necessary and appropriate Insurance coverage shall be borne by Contractor.

CONTRACT

Resolution No. [########]
Contract No. [#######]

This Contract is made and entered into effective as of [Month], [Day], [Year] ("Effective Date") by and between the City of Tacoma, a Municipal Corporation of the State of Washington ("City"), and [supplier name as it appears in Ariba, including dbas or trade names] ("Contractor"). [Contract date should match date of award letter and month should be formally spelled out]

That in consideration of the mutual promises and obligations hereinafter set forth the Parties hereto agree as follows:

I. Contractor shall fully execute and diligently and completely perform all work and provide all services and deliverables described herein and in the items listed below each of which are fully incorporated herein and which collectively are referred to as "Contract Documents":

1. Specification No. [Spec Number] [Spec Title] together with all authorized addenda.
2. Contractor's submittal [or specifically described portions thereof] dated [Enter Submittal Date] submitted in response to Specification No. [Spec Number] [Spec Title].
3. Describe with specific detail and list separately any other documents that will make up the contract (fee schedule, work schedule, authorized personnel, etc.) or any other additional items mutually intended to be binding upon the parties.

[Delete this highlighted sentence, paragraph III and sub-bullets #1 and #2 if there are no additional attachments to the contract (attachments would be things other than a spec, contract, or bonds)]

II. If federal funds will be used to fund, pay or reimburse all or a portion of the services provided under the Contract, the terms and conditions set forth at this Appendix A are incorporated into and made part of this Contract and CONTRACTOR will comply with all applicable provisions of Appendix A and with all applicable federal laws, regulations, executive orders, policies, procedures, and directives in the performance of this Contract.

If CONTRACTOR's receipt of federal funds under this Contract is as a sub-recipient, a fully completed Appendix B, "Sub-recipient Information and Requirements" is incorporated into and made part of this Contract.

III. In the event of a conflict or inconsistency between the terms and conditions contained in this document entitled Contract and any terms and conditions contained the above referenced Contract Documents the following order of precedence applies with the first listed item being the most controlling and the last listed item the least controlling:

1. Contract, inclusive of Appendices A and B.
2. List remaining Contract Documents in applicable controlling order. [If the only contract documents are the specification and submittal and no exceptions are taken in the submittal, this section should be deleted]

IV. The Contract terminates on xxxxx, and may be renewed for xxxxxxxx [Complete as needed and as stated in the specification]

V. The total price to be paid by City for Contractor's full and complete performance hereunder, including during any authorized renewal terms, may not exceed:
$[Dollar Amount], plus any applicable taxes.

VI. Contractor agrees to accept as full payment hereunder the amounts specified herein and in Contract Documents, and the City agrees to make payments at the times and in the manner and upon the terms and conditions specified. Except as may be otherwise provided herein or in Contract Documents Contractor shall provide and bear the expense of all equipment, work and labor of any sort whatsoever that may be required for the transfer of materials and for constructing and completing the work and providing the services and deliverables required by this Contract.

VII. The City's preferred method of payment is by ePayables (Payment Plus), followed by credit card (aka procurement card), then Electronic Funds Transfer (EFT) by Automated Clearing House (ACH), then check or other cash equivalent. CONTRACTOR may be required to have the capability of accepting the City's ePayables or credit card methods of payment. The City of Tacoma will not accept price changes or pay additional fees when ePayables (Payment Plus) or credit card is used. The City, in its sole discretion, will determine the method of payment for this Contract.

VIII. Failure by City to identify a deficiency in the insurance documentation provided by Contractor or failure of City to demand verification of coverage or compliance by Contractor with the insurance requirements contained in the Contract Documents shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

IX. Contractor and for its heirs, executors, administrators, successors, and assigns, does hereby agree to the full performance of all the requirements contained herein and in Contract Documents.

It is further provided that no liability shall attach to City by reason of entering into this Contract, except as expressly provided herein.

IN WITNESS WHEREOF, the Parties hereto have accepted and executed this Contract, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable.

CITY OF TACOMA:	CONTRACTOR:
Signature:	Signature:
Name:	Name:
Title:	Title:

(City of Tacoma use only - blank lines are intentional)

Director of Finance: _____

Deputy/City Attorney (approved as to form): _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

PERFORMANCE BOND
TO THE CITY OF TACOMA

Resolution No.
Bond No.

That we, the undersigned,

as principal, and _____ _____

as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of
$_____ , for the payment whereof Contractor and Surety bind themselves,

their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

This obligation is entered into in pursuance of the statutes of the State of Washington, the Ordinances of the City of Tacoma.

WHEREAS, under and pursuant to the City Charter and general ordinances of the City of Tacoma, the said City has or is about to enter with the above bounden principal, a contract, providing for

Specification No.

Specification Title:

Contract No.

(which contract is referenced to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory performance bond shall become null and void, if and when the principal, its heirs, executors, administrators, successors, or assigns shall well and faithfully perform all of the Principal's obligations under the Contract and fulfill all terms and conditions of all duly authorized modifications, additions and changes to said Contract that may hereafter be made, at the time and in the manner therein specified; and if such performance obligations have not been fulfilled, this bond shall remain in force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increase.

If the City shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgement, shall pay all costs and attorney's fees incurred by the City in enforcement of its rights hereunder. Venue for any action arising out of in in connection with this bond shall be in Pierce County, Washington.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.

One original bond shall be executed, and signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: Enter Vendor Legal Name

_____

By: _____

Surety:

_____

By: _____

Agent's Name: _____

Agent's Address: _____

PAYMENT BOND
TO THE CITY OF TACOMA

Resolution No.
Bond No.

That we, the undersigned, _____

as principal, and _____

as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of,

$_____ , for the payment whereof Contractor and Surety bind themselves,

their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

This obligation is entered into in pursuance of the statutes of the State of Washington, the Ordinances of the City of Tacoma.

WHEREAS, under and pursuant to the City Charter and general ordinances of the City of Tacoma, the said City has or is about to enter with the above bounden principal, a contract, providing for

Specification No.

Specification Title:

Contract No.

(which contract is referenced to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory payment bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall pay all persons in accordance with RCW 39.08, 39.12, and 60.28, including all workers, laborers, mechanics, subcontractors, and materialmen, and all person who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and all taxes incurred on said Contract under Titles 50 and 51 RCW and all taxes imposed on the Principal under Title 82 RCW; and if such payment obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract shall in any way affect its obligation on this bond, and waivers notice of any changes, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

No suit or action shall be commenced hereunder by any claimant unless claimant shall have given the written notices to the City, and where required, the Contractor, in accordance with RCW 39.08.030.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of claims which may be properly filed in accordance with RCW 39.08 whether or not suit is commenced under and against this bond.

If any claimant shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment and attorney fees as provided by RCW 39.08.030, shall also pay such costs and attorney fees as may be incurred by the City as a result of such suit. Venue for any action arising out of or in connection with this bond shall be in Pierce County, WA.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of “Surety Companies Acceptable in Federal Bonds” as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.

Resolution No.
Bond No.
Specification No.
Contract No.

One original bond shall be executed, and be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: Enter Vendor Legal Name

_____

By: _____

Surety:

_____

By: _____

Agent's Name: _____

Agent's Address: _____

GENERAL RELEASE TO THE CITY OF TACOMA

The undersigned, named as the contractor for _____ (Project / Spec. #) between _____ (Themselves or Itself) and the City of Tacoma, dated _____, 20___, hereby releases the City of Tacoma, its departmental officers and agents from any and all claim or claims whatsoever in any manner whatsoever at any time whatsoever arising out of and/or in connection with and/or relating to said contract, excepting only the equity of the undersigned in the amount now retained by the City of Tacoma under said contract, to-wit the sum of $_____.

Signed at Tacoma, Washington this_____day of_____, 20___.

_____
Contractor

By _____

Title _____