City of Wenatchee

DEPARTMENT OF PUBLIC WORKS

BID PROPOSAL, CONTRACT DOCUMENTS AND SPECIAL ROVISIONS

Okanogan 4 Million Gallon Reservoir Temporary Repairs

City Project No. 2606

May 2026

City of Wenatchee 301 Yakima St., PO Box 519 Wenatchee, WA 98801 Phone: (509) 888-3212 Contact: Jeremy Hoover, PE	Stantec Consulting Services, Inc. 304 W Pacific Ave Suite number 370 Spokane, WA 99201-4320 Phone: (509) 328-5139 Contact: Russ Connole, Senior Project Manager

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City of Wenatchee

BID PROPOSAL, CONTRACT DOCUMENTS AND SPECIAL PROVISIONS FOR:

Okanogan 4 Million Gallon Reservoir Temporary Repairs City Project No. 2606

May 2026

CITY OF WENATCHEE
OKANOGAN 4 MILLION GALLON RESERVOIR TEMPORARY REPAIRS
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City of Wenatchee
301 Yakima Street
Wenatchee, WA 98801

ADVERTISEMENT FOR BIDS

Notice is hereby given that sealed bids will be received by the City of Wenatchee, until 10:00:59 a.m. on June 16, 2026, for the City of Wenatchee **Okanogan 4 Million Gallon Reservoir Temporary Repairs**, City of Wenatchee Project No. 2606. Bid proposals will be received by City staff at the City of Wenatchee, City Hall at 301 Yakima Street, and will then and there be opened, read, and tabulated publicly. The Engineer's estimated range of probable cost is $1,500,000 - $1,700,000. Proposals received after the time fixed for opening will not be considered.

The major items of work include: Various repairs and rehabilitation to the Okanogan 4 Million Gallon Reservoir. All work shall be completed in accordance with the contract plans, specifications, special provisions, and the 2026 WSDOT Standard Specifications.

Time for completion of the work is limited to *40* working days.

Bidders may download the bid documents from www.questcdn.com by entering Quest #10209332 on the website's Project Search page; a download delivery fee of $22.00 will be assessed by QuestCDN. Please contact QuestCDN at +1 (952) 233-1632 or info@questcdn.com for assistance in free membership registration, downloading, and working with this digital information. A review set will be available at the City of Wenatchee Department of Public Works Office, 301 Yakima Street, Wenatchee WA 98801.

Each bid proposal shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check, postal money order, or surety bond in an amount equal to at least five percent (5%) of the amount of the bid proposal. Checks shall be made payable to The City of Wenatchee. Should the successful bidder fail to enter into such contract and furnish satisfactory performance and payment bond within the time stated in the specifications, the bid proposal deposit shall be forfeited to the City of Wenatchee. The City of Wenatchee reserves the right to reject any or all bids and to waive irregularities in the bid or in the bidding.

The City of Wenatchee, in accordance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. 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, or national origin in consideration for an award.

Contractor shall assure to City of Wenatchee that all services provided through this contract shall be completed in full compliance with the Americans with Disabilities Act ("ADA") and Architectural and Transportation Barriers Compliance Board, Federal Register 36 CFR Parts 1190 and 1191, Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; proposed rule, published in the Federal Register on July 23, 2004.

No bidder may withdraw their proposal after the hours set for the opening thereof, or before award of contract, unless said award is delayed for a period exceeding forty-five (45) days.

PUBLISHED:
The Wenatchee World

PUBLISHED DATES:
May 20, 2026 and May 27, 2026

INFORMATION TO BIDDERS

BIDDING CHECKLIST

This checklist is provided for Bidder's convenience to help confirm Proposal documents. It remains the responsibility of the Bidder to follow all instructions within the Bid Documents and provide all required documentation whether listed here or not. Bidders must Bid on all items contained in the Proposal. The omission or deletion of any Bid item will be considered non-responsive and shall be cause for rejection of the Bid.

Please make sure you have accomplished the following:

- Have you completed the Bidder's Qualification Certificate?
- Have you certified receipt of Addenda?
- Have you bid on ALL ITEMS and ALL SCHEDULES?
- Has the Proposal been properly signed?
- Has Bid bond or certified check been enclosed with your Bid? Is the amount of the Bid guaranty at least five percent (5%) of the total amount of the Bid?
- Have you enclosed the Non-Collusion Declaration (Form 272-036I)?
- Have you completed and enclosed the Local Agency Subcontractor List (Form 271-015A), if applicable?
- Have you enclosed the Certification of Compliance with Wage Payment Statutes?
- Have you enclosed and signed the Bidder Supplemental Criteria Certification with supporting documentation, if applicable?

INFORMATION TO BIDDERS
CITY OF WENATCHEE
Okanogan 4 Million Gallon Reservoir Temporary Repairs

PROJECT LOCATION
The Work is located at 1573 Okanogan Avenue, at approximately the intersection Okanogan Avenue and Gehr St, in the City of Wenatchee, WA.

EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE
Bidders shall satisfy themselves as to construction conditions by personal examination of Plans, Specifications, and site of the work, and by any other examination and investigation which they may desire to make as to the nature of difficulties to be encountered.

PREPARATION OF THE PROPOSAL
Refer to Section 1-02.6 of the Standard Specifications and Special Provisions for requirements in completing the proposal. **Make sure your bid proposal is complete.**

ADDENDA AND INTERPRETATIONS
Questions regarding the project should be addressed to:

Attention: Will Weems
Contact Job Title: Water Distribution Supervisor
Email: wweems@WenatcheeWA.Gov

The Engineer will not be responsible for oral questions or interpretations. Each request for such interpretation should be by email or in writing addressed to City of Wenatchee, Public Works Department, at 301 Yakima St • Wenatchee, WA 98801. Any interpretations or supplemental instructions that modify the contract will be in the form of written addenda which, if issued, will be posted on questcdn.com. All addenda so issued shall become part of the contract documents.

STATE SALES TAX
Sales tax will be charged on applicable items on this project. See Section 1-07.2 of the Special Provisions.

EQUAL EMPLOYMENT OPPORTUNITY
The City of Wenatchee is an Equal Opportunity and Affirmative Action Employer.

The City of Wenatchee will comply with all federal and state Equal Employment Opportunity regulations where relevant or applicable, to the end that no person shall on the grounds of race, color, creed, age, sex, or marital status, sensory, mental or physical handicap or national origin, be excluded from participation in; be deprived of the benefits of; or be otherwise subjected to discrimination.

AWARD OF CONTRACT
Contract will not be awarded until the City of Wenatchee is satisfied that successful bidder is familiar with the class of work contemplated and has the necessary capital, tools and experience to satisfactorily perform the work within the time stated. Completion of the work within the time stated is essential and prior commitments of the bidder, failure to complete other work on time, or reasonable

doubt as to whether the bidder would complete the work on time would be cause for the rejection of any bid. In addition, the Owner may determine any bidder not to be responsible in accordance with RCW 39.04.350 and/or any other legal authority. The right is reserved by Owner to waive any informalities in the bidding, to reject any or all proposals, to accept any proposal, to re-advertise for new proposals, or to otherwise carry out the work.

All information required of the bidder in this contract and included in the Bid Forms section must be provided with the submitted bid at the time of bid opening, with the exception of the items listed below:

- Subcontractor's information required under RCW 39.30.060, which may be submitted within the timeframe identified in the RCW. See the Subcontractor List in the Bid Forms section.
- The Certification of Compliance with Wage Payment Statutes form is required prior to award of contract.
- List of similar project experience (see Bidders Qualification Certificate) must be received within 3 working days after bid opening.

COMPLETION TIME

Project completion times are identified on the Proposal form.

BID FORMS

NON-COLLUSION AFFIDAVIT

STATE OF WASHNGTON)
) ss
COUNTY OF CHELAN)

_____, being first duly sworn, on his oath says that the bid above submitted is a genuine and not a sham or collusive bid, or made in the interest or on behalf of any person not therein named; and he further says that the said bidder is not directly or indirectly induced or solicited any bidder on the above work or supplies to put in a sham bid, or any another person or corporation to refrain from bidding; and that said bidder has not in any manner sought by collusion to secure to self an advantage over other bidder or bidders.

_____
(Contractor)

Subscribed and sworn to before me this _____ day of _____, 2026.

_____
Notary Public in and for the State of
_____, residing at_____

BIDDER'S QUALIFICATION CERTIFICATE

The undersigned certifies they are qualified to perform the work with basis of qualifications listed on this certificate. Failure of the bidder to provide documentation of qualifications may be cause for rejection of the bid. Should the Owner notify the bidder they are considered non-responsive due to lack of qualifications, the bidder has 3 working days after such notification to provide supplemental information showing qualifications for review. Such supplemental information will not be cause for modifying any portion of the contract, the price, or schedule.

1. Name and Address

_____

_____

_____

Primary contact name and phone for questions: _____

2. State of Washington Registration Number and expiration _____
3. Number of years in contracting business under present firm name _____
4. Particular types of construction work performed by your company:

_____

_____

_____

_____

5. Contractor must show experience as prime contractor for construction of at least three (3) similar projects within the last 5 years. Projects listed must have similar and relevant physical components to those of this project. Attach separate pages if desired. The Owner shall have absolute final determination if contractor's experience is relevant or similar.

	Project Name	Year Work Completed	Owner	Owner Contact Name	Owner Contact Phone Number
1.					
2.					
3.					

7 Gross amount of contracts now in hand:

_____

8. Bank reference(s):

_____

_____

_____

By (Authorized Signature): _____

Title _____

Subcontractor List

Prepared in compliance with RCW 39.30.060 as amended

The City of Wenatchee Requires the bidder to submit the names of all subcontractors whose subcontract amount exceeds 10 percent of the contract price for all contracts exceeding $100,000. Bidders shall complete Section A below, as appropriate, with the bid proposal or within 1 hour of the bid time.

Bidders may attach additional sheets as necessary to identify additional subcontractors. If Information is delivered within 1 hour of the bid time, it may be delivered in person, by fax, courier or email to the owner's representative.

SECTION A. OWNER REQUIRED SUBCONTRACTOR LIST

The following subcontractor(s) subcontract amount(s) exceed 10 percent of the contract price and the contract exceeds $100,000 (list subcontractor and bid item).

Bidder certifies that there are no subcontractors at this time who meet the above requirements.

Name _____

Title. _____

Signature _____

OR There are subcontractors that meet the above requirements.

Subcontractor Name _____

Bid Item No. _____

Address. _____

Phone No. _____ State Contractor's Lic. No. _____

Subcontractor Name _____

Bid Item No. _____

Address. _____

Phone No. _____ State Contractor's Lic. No. _____

Subcontractor Name _____

Bid Item No. _____

Address. _____

Phone No. _____ State Contractor's Lic. No. _____

BID BOND FORM

Herewith find deposit in the form of a certified check, cashier's check, or cash in the amount of $_____which is not less than five percent (5%) of the total bid.

Sign Here: _____

BID BOND

Know all men by these presents, that we _____ as Principal and _____ as Surety, are held and firmly bound unto the City of Wenatchee, as obligee in the penal sum of _____ dollars, for the payment of which the principal and the surety binds themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

The condition of the obligation is such that if the obligee shall make any award to the principal for _____, according to the terms of the proposal or bid made by the principal therefore, and the principal shall duly make and enter into a contract with the obligee in accordance with the terms of said proposal or bid award and shall give bond for faithful performance thereof, with surety or sureties approved by the obligee; or if the principal shall, in case of failure to do so, pay and forfeit to the obligee the penal amount of the deposit specified in the call for bids, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect and the surety shall forthwith pay and forfeit to the obligee, as penalty and liquidated damages the amount of this bond.

Signed, sealed and dated this _____ day of _____, 20_____.

Principal_____

Surety_____

Return of deposit in the amount of $ _____

Date _____

By _____

BID PROPOSAL

Contractor: _____

City: _____, State: _____

Date: _____, 2023

For the construction of the

Project No. 2606, Okanogan 4 Million Gallon Reservoir Temporary Repairs.

City Council
301 Yakima Street
Wenatchee, WA

Pursuant to and in compliance with your invitation for bids and all other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the contract, the local conditions affecting the performance of the contract, the cost of the work at the place where the work is to be done, proposes and agrees to perform, within the time stipulated, the contract, if this project is accepted, including all its component parts and everything required to be performed, and to provide and furnish any and all labor, materials, tools, expendable equipment, an all utility and transportation services necessary to perform the contract, complete, in a workmanlike manner, of all the work covered by the contract in connection with City of Wenatchee's project, designated as Okanogan 4 Million Gallon Reservoir Temporary Repairs Project all as required by and in strict conformance with the Specifications and contract Plans for the following unit prices.

Note: Unit prices of all items, all extensions and total amount of bid must be shown.

Acknowledgement of Receipt of Addenda:

No._____ Date_____ Initials_____

No._____ Date_____ Initials_____

No._____ Date_____ Initials_____

_____
Signature

SCHEDULE OF PRICES

Item #	Item Description	Unit	Est Qty	Unit Price	Total Price
A-1	Mobilization (Spec 01 10 00)	Lump Sum	1	=$_____	=$_____
A-3	Roof Cracking - Expanding Polyurethane Chemical Grout (Detail 1/Sheet CD-1)	Linear Feet	2506	=$_____	=$_____
A-4	Ceiling Spalling & Exposed Reinforcing - Spalled and Delaminated Concrete Repair (Detail 3/Sheet CD-1)	Linear Feet	149	=$_____	=$_____
A-5	Ceiling Telegraphing - Surface Applied Corrosion Inhibitor (Detail 4/Sheet CD-1)	Square Feet	101	=$_____	=$_____
A-6	Beam Spalling and Exposed Reinforcing - Spalled and Delaminated Concrete Repair (Detail 5/CD-2)	Linear Feet	20	=$_____	=$_____
A-7	Beam Cracking - Structural Crack Repair (Detail 6/CD-2)	Linear Feet	224	=$_____	=$_____
A-8	Column Spalling - Spalled and Delaminated Concrete Repair (Detail 7/Sheet CD-2)	Each	1	=$_____	=$_____
A-9	Vertical Wall Cracking - Polyurethane Chemical Grout Injection (Detail 10/Sheet CD-2)	Linear Feet	50	=$_____	=$_____
A-10	Floor Slab Cracking - Crack Repair (Detail 11/Sheet CD-3)	Linear Feet	86	=$_____	=$_____
A-11	Plate Repair (Detail 12/CD-3)	Each	1	=$_____	=$_____
A-12	Expansion Joint Roof - Dual-Faced Silicone Bellows (Detail 13/CD-4)	Linear Feet	380	=$_____	=$_____
A-13	Expansion Joint Vertical Wall - Joint Repair (Detail 14/Sheet CD-4)	Linear Feet	130	=$_____	=$_____
A-14	Expansion Joint Side Slopes - Joint Repair (Detail 15/CD-4)	Linear Feet	1500	=$_____	=$_____
A-15	Expansion Joint Floor Slab - Joint Repair (Detail 16/CD-4)	Linear Feet	3800	=$_____	=$_____
A-16	Disinfection (Spec 01 74 10)	Lump Sum	1	=$_____	=$_____
B-1	Roof Scaling - Concrete Topping, (Detail 2/Sheet CD-1)	Square Feet	6,404	=$_____	=$_____
				Total	=$_____

All bidders shall sign the proposal in the space provided.

The successful bidder shall execute and furnish the attached (no substitution allowed) performance bond within ten (10) calendar days after the date of award of contract unless a written extension is granted by the City of Wenatchee.

The Contractor agrees to perform the work required for within 40 Business Days and complete all contract work (Physical Completion) including corrections, finish, cleanup so that the reservoir can be returned to service at the end of the 40 days. Failure to meet the contract dates may result in liquidated damages in the amount of **$7,500** for each working day beyond the Substantial Completion date.

The proposal, together with the Agreement, a Work Schedule Chart, Contract Documents, Standard Specifications, Special Provisions, Addenda, and Plans, when endorsed by the City of Wenatchee shall become a contract binding on both parties thereto, whereby the Contractor agrees to perform the complete contract work, as specified, and the City of Wenatchee agrees to make payment to the Contractor, as specified, for said completed and accepted work.

Dated this _____ day of _____, 20_____.

Contractor_____

Address_____

_____

By: _____

Title: _____

Attest: (If Corporation)

_____

_____

Witness: (If Individual or Partnership)

_____

Telephone_____

State Contractor's License No._____

City of Wenatchee Business License No.: _____

State Industrial Insurance No.: _____

Employment Security Department No.: _____

UBI No.: _____ DUNS No.: _____

State Excise Tax Registration No.: _____

CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date, 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's Business Name

_____
Signature of Authorized Official*

_____
Printed Name

_____
Title

_____ _____ _____
Date City State

Check One:

Sole Proprietorship ☐ Partnership ☐ Joint Venture ☐ Corporation ☐

State of Incorporation, or if not a corporation, 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*

CONTRACT FORMS

C O N T R A C T

THIS AGREEMENT, made and entered into this ___ day of _____, 2026, between the CITY OF WENATCHEE, a Municipal Corporation of the State of Washington, and _____, hereinafter called the Contractor; WITNESSETH:

That in consideration of the payments, covenants, and agreements hereinafter mentioned and attached and made a part of this agreement to be made and performed by the parties hereto, the parties hereto covenant and agree as follows:

1. The contractor shall do all work and furnish all tools, materials, and equipment for the Okanogan 4 Million Gallon Reservoir Temporary Repairs project, in the amount of $_____ (including applicable sales tax) in accordance with and as described in the attached plans and specifications and in full compliance with the terms, conditions, and stipulations herein set forth and attached, now referred to and by such reference incorporated herein and made a part hereof as fully for all purposes as if set forth at length, and shall perform any alterations in, or additions to, the work covered by this contract and every part thereof and any force account work which may be ordered as provided in this contract and every part thereof.

   The Contractor shall provide and be at the expense of all materials, labor, carriage, tools, implements and conveniences, and things of every description that may be requisite for the transfer of materials and for constructing and completing the work provided for in this contract and every part thereof, except such as mentioned in the specifications to be furnished by the City of Wenatchee.

2. The City of Wenatchee hereby promises and agrees with the Contractor to employ, and does employ the Contractor to provide the materials and to do and cause to be done the above described work and to complete and finish the same according to the attached plans and specifications and the terms and conditions herein contained, and hereby contracts to pay for the same according to the attached specifications and the schedule of unit or itemized prices hereto attached, at the time and in the manner and upon the conditions provided for in this contract and every part thereof. The City further agrees to employ the Contractor to perform any alterations or additions to the work covered by this contract and every part thereof and any force account work that may be ordered and to pay for the same under the terms of this contract and the attached plans and specifications.

3. The Contractor for himself, and for his heirs, executors, administrators, successors, and assigns, does hereby agree to the full performance of all the covenants herein contained upon the part of the Contractor.

4. It is further provided that no liability shall attach to the City by reason of entering into this contract, except as expressly provided for herein.

5. Contractor agrees that he shall actively solicit the employment of minority group members. Contractor further agrees that he shall actively solicit bids for the subcontracting of goods or services from qualified minority businesses. Contractor shall furnish evidence of his compliance with these requirements of minority employment and solicitation. Contractor further agrees to consider the grant of subcontracts to said minority bidders on the basis of substantially equal proposals in the light most favorable to said minority businesses. The contractor shall be required to submit evidence of compliance with this section as part of the bid.

IN WITNESS WHEREOF the said parties and each of them have caused these presents to be duly executed by its proper officers and in the proper person or persons, the day and year first above written.

ATTEST:

CITY OF WENATCHEE
A Municipal Corporation

_____
City Clerk

_____
Mayor

_____
Contractor

By_____

_____
Printed Name/Title

PERFORMANCE AND PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: THAT whereas the City of Wenatchee, Wenatchee, Washington a municipal corporation has awarded to:

_____

(Contractor)

hereinafter designated as the "Principal" a contract for work items, which contract consists of the Proposal/Agreement, together with the Contract Documents, Specifications, Addenda and Plans, all as hereto attached and made a part hereof, and more particularly described as:

Okanogan 4 Million Gallon Reservoir Temporary Repairs

and whereas said principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract:

NOW, THEREFORE, we the Principal and _____, a corporation, organized and existing under and by virtue of the laws of the State of Washington, and duly authorized to do business in the State of Washington as surety, are firmly bound unto the City of Wenatchee in the sum of _____ dollars ($_____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bonded principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in said contract, and shall faithfully perform all the provisions of such contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made, at the time and in the manner therein specified; and shall pay all laborers, mechanics, subcontractors and materialmen, and all persons who shall supply such person or persons, or subcontractors, with provisions and supplies for the carrying on of such work on his or their parts; and shall indemnify and save harmless the Owner's Engineer, its officers and agents, from any loss or damage occasioned to any person or property by reason of any carelessness or negligence on the part of said principal, or any subcontractor, in the performance of said contract or any modifications thereof; and shall further indemnify and save harmless the City of Wenatchee, its officers and agents, from any damage or expense by reason of failure of performance as required by said contract, or any modifications thereof, or from defects appearing or developing in the material or workmanship provided or performed under said contract within a period of one year after acceptance thereof by City of Wenatchee, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect.

And the said surety, for value received, hereby further stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any change, extension of time, alternations or additions to the terms of the Contract or the work or to the Specifications. This Bond is provided pursuant to and shall be construed in accordance with Ch. 39.08 RCW.

IN WITNESS THEREOF, the said Principal and the said surety caused this bond and three (3) counterparts thereof to be signed and sealed by their duly authorized officers, this _____ day of _____, 2025.

_____
Principal

By _____

Title _____

ATTEST (If Corporation)

_____

_____

CORPORATE SEAL

By _____

Title _____

WITNESSES (If Individual or Partnership)

_____

_____

APPROVED AS TO FORM

Surety _____

By _____

(Attorney for _____)

_____

By _____

Address of local office and agent of Surety Company is:

_____

_____

_____

CERTIFICATE OF INSURANCE

PROTECTIVE, COMMERCIAL GENERAL LIABILITY, COMMERCIAL AUTOMOTIVE LIABILITY

Provide Acord Form (sample below) indicating coverages as required in *1-07.18 of the Standard Specifications and Special Provisions* are met.

ACORD™ CERTIFICATE OF LIABILITY INSURANC Clear Save DATE (MM/DD/YYYY)

PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
	INSURERS AFFORDING COVERAGE	NAIC #
INSURED	INSURER A:	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
		GENERAL LIABILITY				EACH OCCURRENCE	$
		☐ COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurence)	$
		☐ CLAIMS MADE ☐ OCCUR				MED EXP (Any one person)	$
						PERSONAL & ADV INJURY	$
						GENERAL AGGREGATE	$
		GEN'L AGGREGATE LIMIT APPLIES PER:				PRODUCTS - COMP/OP AGG	$
		☐ POLICY ☐ PRO-JECT ☐ LOC					
		AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT (Ea accident)	$
		☐ ANY AUTO					
		☐ ALL OWNED AUTOS				BODILY INJURY (Per person)	$
		☐ SCHEDULED AUTOS					
		☐ HIRED AUTOS				BODILY INJURY (Per accident)	$
		☐ NON-OWNED AUTOS					
						PROPERTY DAMAGE (Per accident)	$
		GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
		☐ ANY AUTO				OTHER THAN AUTO ONLY: EA ACC	$
						AGG	$
		EXCESS/UMBRELLA LIABILITY				EACH OCCURRENCE	$
		☐ OCCUR ☐ CLAIMS MADE				AGGREGATE	$
							$
		☐ DEDUCTIBLE					$
		☐ RETENTION $					$
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				☐ WC STATU-TORY LIMITS ☐ OTH-ER	
		ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?				E.L. EACH ACCIDENT	$
		If yes, describe under SPECIAL PROVISIONS below				E.L. DISEASE - EA EMPLOYEE	$
						E.L. DISEASE - POLICY LIMIT	$
		OTHER					

Sample

Sample

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER	CANCELLATION
	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL _____ DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.
	AUTHORIZED REPRESENTATIVE

ACORD 25 (2001/08) © ACORD CORPORATION 1988

City of Wenatchee
Department of Public Works

Final Contract
Voucher Certificate

Contractor			
Street Address			
City	State	Zip	Date
Project Number	Federal-Aid Project Number		Highway Number
Job Description (Title) **Okanogan 4 Million Gallon Reservoir Temporary Repairs, City of Wenatchee Project No. 2606**			
Date Work Physically Completed	Final Amount **$**		

Contractor's Certification

I, The undersigned, having first been duly sworn, certify that I am authorized to sign for the claimant; that in connection with the work performed and to the best of my knowledge no loan, gratuity or gift in any form whatsoever has been extended to any employee of the City of Wenatchee nor have I rented or purchased any equipment or materials from any employee of the City of Wenatchee; I further certify that the attached final estimate is a true and correct statement showing all the monies due me from the City of Wenatchee for work performed and materials furnished under this contract; that I have carefully examined said final estimate and understand the same and that I hereby release the City of Wenatchee from any and all claims of whatsoever nature which I may have, arising out of the performance of said contract, which are not set forth in said estimate.

_____
Contractor Authorized Signature Required

_____
Type Signature Name

Subscribed and sworn to before me this _____day of _____20_____

X_____ Notary Public in and for the State of Washington,

residing at _____

City of Wenatchee

City of Wenatchee hereby accepts the completed contract pursuant to Section 1-05.12 of the contract provisions.

X_____ _____
Mayor/or Designee Date of Acceptance

PREVAILING WAGE

PREVAILING WAGE RATES

Prevailing wage rates for this project area and size can be found at the Washington State Department of Bureau of Labor Industries or on the internet at:

https://www.lni.wa.gov/licensing-permits/public-works-projects/prevailing-wage-rates/

The prevailing wage rates on this project are those effective as of June 16, 2026 for public works contracts in Washington. The rates and forms are hereby incorporated as part of the contract documents by reference.

This project is located within Chelan County.

A printed version of the wage rates is available for viewing in the office of The City of Wenatchee, 301 Yakima Street, Wenatchee WA., and a hard copy can be provided upon request.

SPECIAL PROVISIONS

CONSTRUCTION SPECIFICATIONS

For Construction of:

Okanogan 4 Million Gallon Reservoir Temporary Repairs

City Project No. 2606

City of Wenatchee, Washington

TECHNICAL SPECIFICATIONS

TABLE OF CONTENTS

May 8, 2026

INTRODUCTION TO THE SPECIAL PROVISIONS

(January 4, 2024 APWA GSP, Option A)

The work on this project shall be accomplished in accordance with the Standard Specifications for Road, Bridge and Municipal Construction, 2026 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter "Standard Specifications"). The Standard Specifications, as modified or supplemented by these Special Provisions and including Section 01 00 00 General Requirements., all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision either supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source. For example:

(March 8, 2013 APWA GSP)
(April 1, 2013 WSDOT GSP)
(April 25, 2024 COW GSP) City of Wenatchee Special Provision

Project specific special provisions are labeled without a date as such:
(*****)

Also incorporated into the Contract Documents by reference are:

- Manual on Uniform Traffic Control Devices for Streets and Highways, currently adopted edition, with Washington State modifications, if any
- Standard Plans for Road, Bridge and Municipal Construction, WSDOT Manual M21 01, current edition
- Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way, August 8, 2023 (hereafter referred to as the "2023" PROWAG").
- City of Wenatchee Standard Details 41 Contractor shall obtain copies of these publications, at Contractor's own expense.

DESCRIPTION OF WORK

(March 13, 1995 WSDOT GSP)

The Work of this Contract comprises the repair and rehabilitation of the Okanogan 4 Million Gallon Reservoir. The Work is located at 1573 Okanogan Avenue, in the City of Wenatchee, WA. The Work to be performed under this Contract shall consist of furnishing tools, equipment, materials, supplies, and manufactured articles, and furnishing all labor, transportation, and services, including fuel, power, water, and essential communications, and performing all work or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. The Work shall be complete, and all work, materials, and services not expressly indicated or called for in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith, shall be provided by the Contractor as though originally so indicated, at no increase in cost to the Owner all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

1-01.3 Definitions

(January 19, 2022 APWA GSP)

Delete the heading Completion Dates and the three paragraphs that follow it, and replace them with the following:

Dates

Bid Opening Date
The date on which the Contracting Agency publicly opens and reads the Bids.

Award Date
The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.

Contract Execution Date
The date the Contracting Agency officially binds the Agency to the Contract.

Notice to Proceed Date
The date stated in the Notice to Proceed on which the Contract time begins.

Substantial Completion Date
The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the Physical Completion of the total Contract.

Physical Completion Date
The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.

Completion Date
The day all the Work specified in the Contract is completed and all the obligations of the Contractor under the contract are fulfilled by the Contractor. All documentation required by the Contract and required by law must be furnished by the Contractor before establishment of this date.

Final Acceptance Date
The date on which the Contracting Agency accepts the Work as complete.

Supplement this Section with the following:

All references in the Standard Specifications or WSDOT General Special Provisions, to the terms “Department of Transportation”, “Washington State Transportation Commission”, “Commission”, “Secretary of Transportation”, “Secretary”, “Headquarters”, and “State Treasurer” shall be revised to read “Contracting Agency”. All references to the terms “State” or “state” shall be revised to read “Contracting Agency” unless the reference is to an administrative agency of the State of Washington, a State statute or regulation, or the context reasonably indicates otherwise. All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”. All references to “final contract voucher certification” shall be interpreted to mean the Contracting Agency form(s) by which final payment is authorized, and final completion and acceptance granted.

Additive
A supplemental unit of work or group of bid items, identified separately in the Bid Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

Business Day
A business day is any day from Monday through Friday except holidays as listed in Section 1-08.5.

Contract Bond
The definition in the Standard Specifications for “Contract Bond” applies to whatever bond form(s) are required by the Contract Documents, which may be a combination of a Payment Bond and a Performance Bond.

Contract Documents
See definition for “Contract”.

Contract Time
The period of time established by the terms and conditions of the Contract within which the Work must be physically completed.

Notice of Award
The written notice from the Contracting Agency to the successful Bidder signifying the Contracting Agency’s acceptance of the Bid Proposal.

Notice to Proceed
The written notice from the Contracting Agency or Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract time begins.

Traffic
Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

1-02 BID PROCEDURES AND CONDITIONS

1.02.1 Prequalification of Bidders

Delete this section and replace it with the following:

1-02.1 Qualifications of Bidder

(February 17, 2026 APWA GSP, Option A)

Before award of a public works contract, a Bidder must meet at least the minimum qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to be awarded a public works project. Add the following new section:

1-02.1(1) Supplemental Qualifications Criteria

(July 31, 2017 APWA GSP)

In addition, the Contracting Agency has established Contracting Agency-specific and/or project-specific supplemental criteria, in accordance with RCW 39.04.350(3), for determining Bidder responsibility, including the basis for evaluation and the deadline for appealing a determination that a Bidder is not responsible. These criteria are contained in Section 1-02.14 Option C of these Special Provisions.

1-02.2 Plans and Specifications

(June 27, 2011 APWA GSP)

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found in the Call for Bids (Advertisement for Bids) for the work.

After award of the contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

To Prime Contractor	No. of Sets	Basis of Distribution
Reduced plans (11" x 17")	3	Furnished automatically upon award.
Contract Provisions	3	Furnished automatically upon award.
Large plans (e.g., 22" x 34")	0	Furnished only upon request.

Additional plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor's own expense.

1-02.4(1) General

(December 30, 2022 APWA GSP Option A)

The first sentence of the ninth paragraph, beginning with "Prospective Bidder desiring…", is revised to read:

Prospective Bidders desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing soon enough to allow a written reply to reach all prospective Bidders before the submission of their Bids.

1-02.5 Proposal Forms

(February 17, 2026 APWA GSP)

Delete this section and replace it with the following:

The Bid Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the bid form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's name, address, telephone number, and signature. Bids shall be in legible figures (not words) written in ink or typed and expressed in U.S. dollars. The required certifications are included as part of the Bid Form.

The Contracting Agency reserves the right to arrange the bid forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the Bid Form unless otherwise specified.

1-02.6 Preparation of Proposal

(February 17, 2026 APWA GSP, Option A)

Revise the fourth paragraph to read:

Subcontractor's List

The Bidder shall submit with the Bid the completed Subcontractor List included in the Contracting Agency Proposal Package. If a Subcontractor List Form is not included in the package, use DOT Form 271-015. The Form shall contain the following:

1. Subcontractors who will perform the Work of structural steel installation, rebar installation, heating, ventilation, air conditioning, and plumbing as described in RCW 18.106 and electrical as described in RCW 19.28,

2. The Work those subcontractors will perform on the Contract and the proof of license when required as described in RCW 39.04.350(1), and

3. No more than one subcontractor for each category of Work identified, except, when subcontractors vary with Bid alternates, in which case the Bidder shall identify which subcontractor will be used for which alternate.

1-02.7 Bid Deposit

(February 17, 2026 APWA GSP)

Revise the third sentence of the first paragraph to read:

For projects that are selected by the Contracting Agency to be Bid electronically, the proposal bond may be in either a physical format, or an electronic format via ***NOT APPLICABLE***.

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;
5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

If so stated in the Contract Provisions, bidder must use the bond form included in the Contract Provisions.

If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.

1-02.9 Delivery of Proposal

(November 21, 2025 APWA GSP, Option A)

Delete this section and replace it with the following:

GENERAL

Each Proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Call for Bids clearly marked on the outside of the envelope, or as otherwise required in the Bid Documents, to ensure proper handling and delivery.

Proposals that are received as required will be publicly opened and read as specified in Section 1-02.12. The Contracting Agency will not open or consider any Bid Proposal that is received after the time specified in the Call for Bids for receipt of Bid Proposals or received in a location other than that specified in the Call for Bids. The Contracting Agency will not open or consider any "Supplemental Information" that is received after the time specified, or received in a location other than that specified in the Call for Bids.

If an emergency or unanticipated event interrupts normal work processes of the Contracting Agency so that Proposals cannot be received at the office designated for receipt of bids as specified in Section 1-02.12 the time specified for receipt of the Proposal will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which the normal work processes of the Contracting Agency resume.

Supplemental bid information submitted after the Proposal submittal but within 48 hours of the time and date the Proposal is due, shall be submitted in a sealed envelope labeled the same as for the Proposal, with "Supplemental Information" added.

All other information required to be submitted with the Bid Proposal must be submitted with the Bid Proposal itself, at the time stated in the Call for Bids.

1-02.10 Withdrawing, Revising, or Supplementing Proposal

(February 17, 2026 APWA GSP)

Delete this section, and replace it with the following:

After submitting a physical or an electronic bid, if allowed under 1-02.9, Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Bid Proposals, if a physical Bid Proposal was submitted, or recalled electronically via electronic method described in 1-02.9 if an electronic Bid Proposal was submitted, and
2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and
3. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

If the Bidder's request to withdraw, revise, or supplement its Bid Proposal is received before the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened Proposal package to the Bidder. The Bidder must then submit the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package before the time set for receipt of Bid Proposals, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Requests to withdraw, revise, or supplement a Bid Proposal may be submitted by the following methods:

1. In person

*** at the location specified in the Call for Bids***.

1-02.13 Irregular Proposals

(November 21, 2025 APWA GSP)

Delete this section and replace it with the following:

Proposal will be considered irregular and will be rejected if:

a. The Bidder is not prequalified when so required;
b. The Bidder adds provisions reserving the right to reject or accept the Award, or enter into the Contract;
c. A price per unit cannot be determined from the Bid Proposal;
d. The Proposal form is not properly executed;
e. The Bidder fails to submit or properly complete a subcontractor list as required in Section 1-02.6;
f. The Bidder fails to submit the Bidder Questionnaire, if applicable, as required by Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions; or
g. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation.

A Proposal may be considered irregular and may be rejected if:

a. The Proposal does not include a unit price for every Bid item;
b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
c. The authorized Proposal Form furnished by the Contracting Agency is not used or is altered;
d. The completed Proposal form contains unauthorized additions, deletions, alternate Bids, or conditions;
e. Receipt of Addenda is not acknowledged;
f. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
g. If Proposal form entries are not made in ink.

1-02.14 Disqualification of Bidders

(May 17, 2018 APWA GSP, Option C)

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended; or does not meet Supplemental Criteria 1-8 in this Section:

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1), and Supplemental Criteria 1-2. Evidence that the Bidder meets Supplemental Criteria 3-8 shall be provided by the Bidder as stated later in this Section.

1. **Delinquent State Taxes**

A. Criterion: The Bidder shall not owe delinquent taxes to the Washington State Department of Revenue without a payment plan approved by the Department of Revenue.

B. Documentation: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder does not owe delinquent taxes to the Washington State Department of Revenue, or if delinquent taxes are owed to the Washington State Department of Revenue, the Bidder must submit a written payment plan approved by the Department of Revenue, to the Contracting Agency by the deadline listed below.

2. **Federal Debarment**

A. Criterion: The Bidder shall not currently be debarred or suspended by the Federal government.

B. Documentation: The Bidder shall not be listed as having an "active exclusion" on the U.S. government's "System for Award Management" database (www.sam.gov).

3. **Subcontractor Responsibility**

A. Criterion: The Bidder's standard subcontract form shall include the subcontractor responsibility language required by RCW 39.06.020, and the Bidder shall have an established procedure which it utilizes to validate the responsibility of each of its subcontractors. The Bidder's subcontract form shall also include a requirement that each of its subcontractors shall have and document a similar procedure to determine whether the sub-tier subcontractors with whom it contracts are also "responsible" subcontractors as defined by RCW 39.06.020.

B. Documentation: The Bidder, if and when required as detailed below, shall submit a copy of its standard subcontract form for review by the Contracting Agency, and a written description of its procedure for validating the responsibility of subcontractors with which it contracts.

4. **Claims Against Retainage and Bonds**

A. Criterion: The Bidder shall not have a record of excessive claims filed against the retainage or payment bonds for public works projects in the three years prior to the bid submittal date, that demonstrate a lack of effective management by the Bidder of making timely and appropriate payments to its subcontractors, suppliers, and workers, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.

B. Documentation: The Bidder, if and when required as detailed below, shall submit a list of the public works projects completed in the three years prior to the bid submittal date that have had claims against retainage and bonds and include for each project the following information:

- Name of project
- The owner and contact information for the owner;
- A list of claims filed against the retainage and/or payment bond 10 for any of the projects listed;
- A written explanation of the circumstances surrounding each claim and the ultimate resolution of the claim. 13

Public Bidding Crime

A. Criterion: The Bidder and/or its owners shall not have been convicted of a crime involving bidding on a public works contract in the five years prior to the bid submittal date.

B. Documentation: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder and/or its owners have not been convicted of a crime involving bidding on a public works contract.

6. **Termination for Cause / Termination for Default**

A. Criterion: The Bidder shall not have had any public works contract terminated for cause or terminated for default by a government agency in the five years prior to the bid submittal date, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.

B. Documentation: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder has not had any public works contract terminated for cause or terminated for default by a government agency in the five years prior to the bid submittal date; or if Bidder was terminated, describe the circumstances.

7. **Lawsuits**

A. Criterion: The Bidder shall not have lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts, unless there are extenuating circumstances and such circumstances are deemed acceptable to the Contracting Agency.

B. Documentation: The Bidder, if and when required as detailed below, shall sign a statement (on a form to be provided by the Contracting Agency) that the Bidder has not had any lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date that demonstrate a pattern of failing to meet the terms of contracts, or shall submit a list of all lawsuits with judgments entered against the Bidder in the five years prior to the bid submittal date, along with a written explanation of the circumstances surrounding each such lawsuit. The Contracting Agency shall evaluate these explanations to determine whether the lawsuits

demonstrate a pattern of failing to meet of terms of construction related contracts.

8. **Prior Project Experience**

A. Criterion: The Bidder will have constructed two (2) projects with a minimum of 1,000' feet each of successfully installed water pipe greater than 12" diameter within the last 5 years. Regardless of whether the Bidder was the prime contractor or subcontractor on the listed projects, they shall have been the contractor to actually complete the work. The Bidder may list projects completed by subcontractors provided that they are the contractor who completed the work referenced and will complete the water facility installation under this Contract.

B. Documentation: The bidder shall list two (2) projects meeting the criterion stated in part 8.A and provide contact information for references on those projects, that the City may verify.

As evidence that the Bidder meets the Supplemental Responsibility Criteria stated above, the apparent low Bidder must submit to the Contracting Agency by 12:00 P.M. (noon) of the second business day following the bid submittal deadline, a written statement verifying that the Bidder meets the Supplemental Criteria together with supporting documentation (sufficient in the sole judgment of the Contracting Agency) demonstrating compliance with the Supplemental Responsibility Criteria. The Contracting Agency reserves the right to request further documentation as needed from the low bidder and documentation from other Bidders as well to assess Bidder responsibility and compliance with all bidder responsibility criteria. The Contracting Agency also reserves the right to obtain information from third-parties and independent sources of information concerning a Bidder's compliance with the mandatory and supplemental criteria, and to use that information in their evaluation. The Contracting Agency may consider mitigating factors in determining whether the Bidder complies with the requirements of the Supplemental Criteria.

The basis for evaluation of Bidder compliance with these mandatory and Supplemental Criteria shall include any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from others for whom the Bidder has worked, or other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

If the Contracting Agency determines the Bidder does not meet the bidder responsibility criteria above and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within two (2) business days of the Contracting Agency's determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the Contracting Agency's final determination.

Bidder until at least two business days after the Bidder determined to be not responsible has received the Contracting Agency's final determination. Request to Change Supplemental Bidder Responsibility Criteria Prior To Bid: Bidders with concerns about the relevancy or restrictiveness of the Supplemental Bidder Responsibility Criteria may make or submit requests to the Contracting Agency to modify the criteria. Such requests shall be in writing, describe the nature of the concerns, and propose specific modifications to the criteria. Bidders shall submit such requests to the Contracting Agency no later than five (5) business days prior to the bid submittal deadline and address the request to the Project Engineer or such other person designated by the Contracting Agency in the Bid Documents.

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids

(December 30, 2022 APWA GSP)

Revise the first paragraph to read:

After opening and reading proposals, the Contracting Agency will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control. If a minimum bid amount has been established for any item and the bidder's unit or lump sum price is less than the minimum specified amount, the Contracting Agency will unilaterally revise the unit or lump sum price, to the minimum specified amount and recalculate the extension. The total of extensions, corrected where necessary, including sales taxes where applicable and such additives and/or alternates as selected by the Contracting Agency, will be used by the Contracting Agency for award purposes and to fix the Awarded Contract Price amount and the amount of the contract bond.

1-03.3 Execution of Contract

(February 17, 2026 APWA GSP, Option A)

Revise this section to read:

Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.

Within 3 calendar days after the award date, the successful Bidder shall return the signed Contracting Agency-prepared Contract, an insurance certification as required by Section 1-07.18, a satisfactory bond as required by law and Section 1-03.4, the Transfer of Coverage form for the Construction Stormwater General Permit with sections I, III, and VIII completed when provided. Before execution of the Contract by the Contracting Agency, the successful Bidder shall provide, if required, any of the following: pre-Award information required by the Contracting Agency as listed under Section 1-02.15, proof of licensure for electrical, HVAC, or plumbing subcontractors. If the Prime Contractor lists themselves as performing HVAC, electrical, or plumbing they are required to submit proof of licensure prior to execution.

Until the Contracting Agency executes a Contract, no Proposal shall bind the Contracting Agency nor shall any Work begin within the project limits or within Contracting Agency-furnished sites. The Contractor shall bear all risks for any Work begun outside such areas and for any materials ordered before the Contract is executed by the Contracting Agency.

If the Bidder experiences circumstances beyond their control that prevents return of the Contract documents within the calendar days after the Award date stated above, the Contracting Agency may grant up to a maximum of 10 additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

1-03.4 Contract Bond

(July 23, 2015 APWA GSP)

Delete the first paragraph and replace it with the following:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. The bond may be a combined payment and performance bond; or be separate payment and performance bonds. In the case of separate payment and performance bonds, each shall be for the full contract amount. The bond(s) shall:

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
   a. Is registered with the Washington State Insurance Commissioner, and
   b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:
   a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
   b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, Lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

1-03.7 Judicial Review

(December 30, 2022 APWA GSP)

Revise this section to read:

All decisions made by the Contracting Agency regarding the Award and execution of the Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.

1-04 SCOPE OF WORK

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

(December 30, 2022 APWA GSP)

Revise the second paragraph to read:

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

1. Addenda,
2. Proposal Form,
3. Special Provisions,
4. Contract Plans,
5. Standard Specifications,
6. Contracting Agency's Standard Plans or Details (if any), and
7. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

1-04.4 Changes

(January 19, 2022 APWA GSP)

The first two sentences of the last paragraph of Section 1-04.4 are deleted.

1-04.4(1) Minor Changes

(May 30, 2019 APWA GSP)

Delete the first paragraph and replace it with the following:

Payments or credits for changes amounting to $25,000.00 or less may be made under the Bid item "Minor Change". At the discretion of the Contracting Agency, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes. All "Minor Change" work will be within the scope of the Contract Work and will not change Contract Time.

1-04.6 Variation in Estimated Quantities

(May 25, 2006 APWA GSP)

Supplement this section with the following:

The quantities for *** Okanogan 4 Million Gallon Reservoir Temporary Repairs. *** have been entered into the Bid Form only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original unit bid price, regardless of final quantity, and as quantities are reviewed and approved.

(December 30, 2022 APWA GSP, Option B)

Revise the first paragraph to read:

Payment to the Contractor will be made only for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantity of Work performed under a unit item varies from the original Proposal quantity, payment will be at the unit Contract price for all Work unless the total accepted quantity of the Contract item, adjusted to exclude added or deleted amounts included in change orders accepted by both parties, increases or decreases by more than 25 percent from the original Proposal quantity, and if the total extended bid price for that item at time of award is equal to or greater than 10 percent of the total contract price at time of award. In that case, payment for contract work may be adjusted as described herein:

1-05 CONTROL OF WORK

1-05.7 Removal of Defective and Unauthorized Work

(February 17, 2026 APWA GSP)

Supplement this section with the following:

The rights exercised under the provisions of this Section shall not diminish the Contracting Agency's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the Work as required. The Engineer has the right to reject all or part of the Nonconforming Work, and the Engineer's decision is final and not subject to protest. No additional contract time or compensation will be allowed when the Contracting Agency exercises their rights provided by this Section.

1-05.7(1)Identification of Nonconforming Work

Replace this section with the following:

The Contractor is responsible for quality control and shall identify all Nonconforming Work. The Contracting Agency may also identify Nonconforming Work. However, failure by the Contracting Agency to identify Nonconforming Work shall not relieve the Contractor from their responsibility for the quality of the Work, nor shall it constitute acceptance or approval of the Nonconforming Work.

1-05.7(2)Reporting of Nonconforming Work

Replace this section with the following:

The Contractor shall immediately report all Nonconforming Work to the Engineer and shall include any relevant information known for suggested remediation of Nonconforming Work.

When the Contracting Agency identifies Nonconforming Work, the Engineer will notify the Contractor in writing specifying a time when a remedy must be complete. If the Contractor fails to remedy Nonconforming Work within the time specified in a written notice from the Engineer, or fails to perform any part of the Work required by the Contract Documents, the Engineer may correct and remedy such Work as may be identified in the written notice.

1-05.7(3)Remediation of Nonconforming Work

Supplement this section with the following:

The Contractor shall be responsible and bear all costs for remediating Nonconforming Work.

If the Contracting Agency remedies Nonconforming Work after the specified time when a remedy was to be completed, by any means deemed necessary, direct and indirect costs incurred by the Contracting Agency attributable to correcting and remedying Nonconforming Work not corrected by the time provided in the notice, or Work the Contractor failed or refused to perform, shall be paid by the Contractor.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the Nonconforming Work corrected immediately, have the Work removed and replaced, or have Work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause risk of loss or damage to the public.

When costs are incurred by the Contracting Agency, payment will be deducted by the Engineer from monies due, or to become due, to the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and compensation for removal, repair, replacement and/or correction of the Contractor's Nonconforming Work.

1-05.11 Final Inspection

Delete this section and replace it with the following:

1-05.11 Final Inspections and Operational Testing

(October 1, 2005 APWA GSP)

1-05.11(1) Substantial Completion Date

When the Contractor considers the work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor's request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.

If, after this inspection, the Engineer concurs with the Contractor that the work is substantially complete and ready for its intended use, the Engineer, by written notice to the Contractor, will set the Substantial Completion Date. If, after this inspection the Engineer does not consider the work substantially complete and ready for its intended use, the Engineer will, by written notice, so notify the Contractor giving the reasons therefore.

Upon receipt of written notice concurring in or denying substantial completion, whichever is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized interruption, the work necessary to reach Substantial and Physical Completion. The Contractor shall provide the Engineer with a revised schedule indicating when the Contractor expects to reach substantial and physical completion of the work.

The above process shall be repeated until the Engineer establishes the Substantial Completion Date and the Contractor considers the work physically complete and ready for final inspection.

1-05.11(2) Final Inspection and Physical Completion Date

When the Contractor considers the work physically complete and ready for final inspection, the Contractor by written notice, shall request the Engineer to schedule a final inspection. The Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously, diligently, and without interruption until physical completion of the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

If action to correct the listed deficiencies is not initiated within 7 days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies pursuant to Section 1-05.7.

The Contractor will not be allowed an extension of contract time because of a delay in the performance of the work attributable to the exercise of the Engineer's right hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the Contracting Agency, in writing, of the date upon which the work was considered physically complete. That date shall constitute the Physical Completion Date of the contract, but shall not imply acceptance of the work or that all the obligations of the Contractor under the contract have been fulfilled.

1-05.12 Final Acceptance

Add the following new section:

1-05.12(1) One-Year Guarantee Period

(March 8, 2013 APWA GSP)

The Contractor shall return to the project and repair or replace all defects in workmanship and material discovered within one year after Final Acceptance of the Work. The Contractor shall start work to remedy any such defects within 7 calendar days of receiving Contracting Agency's written notice of a defect, and shall complete such work within the time stated in the Contracting Agency's notice. In case of an emergency, where damage may result from delay or where loss of services may result, such corrections may be made by the Contracting Agency's own forces or another contractor, in which case the cost of corrections shall be paid by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for correcting all defects in workmanship and materials in the corrected work for one year after acceptance of the corrections by Contracting Agency.

This guarantee is supplemental to and does not limit or affect the requirements that the Contractor's work comply with the requirements of the Contract or any other legal rights or remedies of the Contracting Agency.

1-05.13 Superintendents, Labor and Equipment of Contractor

(August 14, 2013 APWA GSP)

Delete the sixth and seventh paragraphs of this section.

1-05.15 Method of Serving Notices

(January 4, 2024 APWA GSP)

Revise the second paragraph to read:

All correspondence from the Contractor shall be served and directed to the Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be written in paper format, hand delivered or sent via certified mail delivery service with return receipt requested to the Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

Add the following new section:

1-05.16 Water and Power

(October 1, 2005 APWA GSP)

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the work, unless the contract includes power and water as a pay item.

Add the following new section:

1-05.18 Record Drawings

(March 8, 2013 APWA GSP)

The Contractor shall maintain one set of full size plans for Record Drawings, updated with clear and accurate red-lined field revisions on a daily basis, and within 2 business days after receipt of information that a change in Work has occurred. The Contractor shall not conceal any work until the required information is recorded.

This Record Drawing set shall be used for this purpose alone, shall be kept separate from other Plan sheets, and shall be clearly marked as Record Drawings. These Record Drawings shall be kept on site at the Contractor's field office, and shall be available for review by the Contracting Agency at all times. The Contractor shall bring the Record Drawings to each progress meeting for review.

The preparation and upkeep of the Record Drawings is to be the assigned responsibility of a single, experienced, and qualified individual. The quality of the Record Drawings, in terms of accuracy, clarity, and completeness, is to be adequate to allow the Contracting Agency to modify the computer-aided drafting (CAD) Contract Drawings to produce a complete set of Record Drawings for the Contracting Agency without further investigative effort by the Contracting Agency.

The Record Drawing markups shall document all changes in the Work, both concealed and visible. Items that must be shown on the markups include but are not limited to:

- Actual dimensions, arrangement, and materials used when different than shown in the Plans.
- Changes made by Change Order or Field Order.
- Changes made by the Contractor.
- Provide the applicable reference for all entries, such as the change order number, the request for information (RFI) number, or the approved shop drawing number.

The Contractor shall certify on the Record Drawings that said drawings are an accurate depiction of built conditions, and in conformance with the requirements detailed above.

The Contractor shall submit final Record Drawings to the Contracting Agency. Contracting Agency acceptance of the Record Drawings is one of the requirements for achieving Physical Completion.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed

(October 1, 2005 APWA GSP)

Supplement this section with the following:

In cases of conflict between different safety regulations, the more stringent regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).

The Contractor shall maintain at the project site office, or other well known place at the project site, all articles necessary for providing first aid to the injured. The Contractor shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor's care, persons, including employees, who may have been injured on the project site. Employees should not be permitted to work on the project site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor's care.

The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the Contractor's plant, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely responsible for the conditions of the project site, including safety for all persons and property in the performance of the work. This requirement shall apply continuously, and not be limited to normal working hours. The required or implied duty of the Engineer to conduct construction review of the Contractor's performance does not, and shall not, be intended to include review and adequacy of the Contractor's safety measures in, on, or near the project site.

1-07.2 State Taxes

Delete this section, including its sub-sections, in its entirety and replace it with the following:

1-07.2 State Sales Tax

(June 27, 2011 APWA GSP)

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-funded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(1)State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(2)State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will utomatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.

1-07.2(3)Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

1-07.6 Permits and Licenses

(June 4, 2024 COW GSP)

Section 1-07.6 is supplemented with the following:

The Contractor shall be required to secure, at their expense, from the City of Wenatchee the following permits:

1. City of Wenatchee Business License
2. City of Wenatchee Hydrant Valve Application (if required)
    a. $200 Deposit and $20 Installation Fee + Usage Charges 30

A City of Wenatchee Business License must be acquired through the Washington State Department of Revenue.

Hydrant Valve Applications are available on the City of Wenatchee website at the following web address: https://www.wenatcheewa.gov/government/public-works/links-documents

1-07.8 High-Visibility Apparel

1-07.8(1)Control Personnel

Supplement section 1-07.8(1) with the following:

(September 16, 2025 WSDOT GSP)

All personnel performing the Work described in Section 2-04 (including traffic control supervisors, flaggers, and others performing traffic control labor of any kind) shall comply with the following:

1. During daylight hours with clear visibility, workers shall wear a high-visibility ANSI/ISEA 107 Type R Class 2 or 3 garment with background material that are fluorescent yellow-green, fluorescent orange-red, or fluorescent red in color; and a high visibility hardhat that is white, yellow, yellow-green, orange, or red in color; and

2. During hours of darkness (½ hour before sunset to ½ hour after sunrise) or other low-visibility conditions (snow, fog, etc.), workers shall wear a high-visibility ANSI/ISEA 107 Type R Class 2 or 3 garment with background material that are fluorescent yellow-green, fluorescent orange-red, or fluorescent red in color; a high-visibility lower garment meeting ANSI/ISEA 107 Class E, and a high visibility hardhat marked with at least 12 square inches of retroreflective material applied to provide 360 degrees of visibility.

1-07.9 Wages

1-07.9(3)Apprentices

(February 17, 2026 APWA GSP)

Supplement this section with the following:

Apprentice Utilization

This Contract includes an Apprentice Utilization Requirement. Fifteen percent or more of project Labor Hours shall be performed by Apprentices unless Good Faith Efforts are accepted**.** Apprentice Utilization will be determined using the Department of Labor and Industries (L&I) online Prevailing Wage Intent & Affidavit (PWIA) system. 23

Definitions

For the purposes of this specification the following definitions apply:

1. Apprentice is a person enrolled in a State-approved Apprenticeship Training Program.

2. Apprentice Utilization is the apprentice labor hours, on the project, expressed as a percentage of project Labor Hours based on certified payrolls or the affidavits of wages paid, whichever is least. The percentage is not rounded up.

3. Apprentice Utilization Requirement is the minimum percentage of apprentice labor hours required by the Contract.

4. Good Faith Effort(s) (GFE) describes the Contractor's efforts to meet the Apprentice Utilization Requirement including but not limited to the specific steps as described elsewhere in this specification.

5. Labor Hours are the total hours performed by all workers receiving an hourly wage who are subject to prevailing wage requirements for work performed on the Contract as defined by RCW 39.04.310. Labor Hours are determined based on the scope of work performed by the individuals, rather than the title of their occupations in accordance with WAC 296-127.

6. State-approved Apprenticeship Training Program is an apprenticeship training program approved by the Washington State Apprenticeship Council.

7. Apprentice Wage Rates are the applicable wage rates that are to be paid for an apprentice registered in a training program, separate from Journey Level rates, as set by the Washington State Apprenticeship Training Council and Washington State

Department of Labor and Industries (L&I).

Electronic Reporting

The Contractor shall use the PWIA System to submit the "Apprentice Utilization Plan". Reporting instructions are available in the application. 7

Apprentice Utilization Plan

The Contractor shall submit an "Apprentice Utilization Plan" by filling out the Apprentice Utilization Plan Form (WSDOT Form 424-004) or other form approved by the Contracting Agency within 30 calendar days of Contract execution, however no later than the preconstruction meeting, demonstrating how and when they intend to achieve the Apprentice Utilization Requirement. The Plan shall be in sufficient detail for the Engineer to track the Contractor's progress in meeting the utilization requirements. An Apprentice Utilization Plan shall be updated and resubmitted as the Work progresses or when requested by the Engineer or other Contracting Agency representative. 17

If the Contractor is unable to demonstrate the ability to meet the Apprentice Utilization Requirement with their initial Apprentice Utilization Plan submission, an effort must be made to find additional registered apprentices to perform on the contract. If after attempts have been made at every tier and every scope, the Contractor must submit GFE documentation to the Contracting Agency. The Contractor shall actively seek out opportunities to meet the Apprentice Utilization Requirement during the construction Work.

Subcontracts

The Contractor must not require subcontractors to attain more than 15% of a subcontract's proposed labor hours for the subcontract's scope of Work.

Contacts

The Contractor may obtain information on State-approved Apprenticeship Training Programs by using the Apprentice Registration and Tracking System (ARTS) https://secure.lni.wa.gov/arts-public/#/program-search or contacting the Department of Labor and Industries directly at:

Specialty Compliance and Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530 or by phone at (360) 902-5320.

Compliance

The Contractor is expected to make attempts to employ Apprentices and shall include the requirement in any subcontracts at any tier. In the event that the Contractor is unable to achieve the Apprentice Utilization Requirement, the Contractor shall submit GFE documentation demonstrating the efforts and attempts they made. Final GFE documentation shall be submitted to the Contracting Agency after Substantial Completion but no later than 30 days after Physical Completion.

If the Contractor fails to actively attempt to employ Apprentices, submit GFE documentation, or if the Engineer does not approve the GFE, the Contractor will be assessed a penalty. The Engineer will provide the Contractor with a written notice at Final Acceptance of the project informing the Contractor of the failure to comply with this specification which will include a calculation of the penalty to be assessed as provided for in the Payment section in this special provision.

If the Contractor achieves the required Apprentice Utilization an incentive will be assessed with Final Payment.

Good Faith Efforts

The GFE shall document the attempts (efforts) the Contractor (and any subcontractor at any tier) made to meet the Apprentice Utilization Requirement. Emails, letters, or other written communications with letterhead, titles, and contact information are required.

Documentation must include one or more of the following accepted GFEs:

1. Demonstrated Lack of Availability of Apprentices. Correspondence from State-approved Apprenticeship Training Program(s), with project specific responses confirming there is a lack of availability of Apprentices for this project.
2. Demonstrated Disproportionate Ratio of Material/Equipment/Products to Labor Hours. Documentation explaining the bid includes a disproportionate high cost of material/equipment/products to Labor Hours. (E.g., a $2 M estimated contract includes $1 M or more in procurement costs of equipment to be installed.)
3. Demonstrated Lack of Necessary Labor Hours. Correspondence from a State-approved Apprentice Training Programs confirming there is not enough time in the project to meet required journey level to apprentice training ratios.
4. Demonstrated Lack of Available Approved Programs. Correspondence from State-approved Apprentice Training Programs, confirming there are no programs that train for the scopes included/anticipated on the project. Contractor and state programs to submit training program detail needs and details that could be used for future program creation.
5. Funding Precedent. Documentation that shows conflicting, more restrictive, or precedent requirements for other training on the Project. Examples include, but are not limited to, Tribal Employment Rights (TERO), Federal Training Hours, or Special Training that affect the ability to use state-registered apprentices.
6. Warranty Work. Documentation from Original Equipment Manufacturers, or similar, confirming that Work performed must only be completed by certified journey-level installers or risk voiding warranty, or similar.
7. Other Effort. The Contractor may submit other evidence, documentation, or rationale for not being able to achieve the required Apprentice Utilization that are not covered in the other efforts named. Other efforts will still need to be corroborated by an independent, knowledgeable third-party. 45

   Contractors may receive a GFE credit for graduated Apprentice hours through the end of the calendar year for all projects worked on as long as the Apprentice remains continuously employed with the same Contractor/subcontractor they were working for when they graduated. If an Apprentice graduates during employment on a project of significant duration, they may be counted towards a GFE credit for up to one year after their graduation or until the end of the project (whichever comes first). Determination of whether Contract requirements were met in good faith will be made by subtracting the hours from the journeyman total reported hours for the project and adding them to the apprentice hour total. If the new utilization percentage meets the Contract requirement, the Contractor will be reported as meeting the requirement in good faith.

Approving Good Faith Efforts

The Contracting Agency will review submitted Good Faith Efforts and issue a determination. The Engineer may request additional information, documentation, evidence or similar in order to approve such efforts. A determination by the Engineer is final. The approved Good Faith Efforts will be loaded into the PWIA system by the Contracting Agency.

Measurement

Apprenticeship hours used to calculate the item "Apprentice Incentive/Penalty", by calculation, will be measured for each hour of Work performed by an apprentice as shown on the Monthly Apprentice Utilization Report, based on certified payrolls or the affidavits of wages paid, whichever is least. The percentage is not rounded up. The calculation of incentive/penalty will be assessed based on the Final Payment for Contractors who meet the Apprentice Utilization Requirement without a reduction by Good Faith Effort.

Payment

Payment will be made for the following Bid Items when included in the proposal:

"Apprenticeship Incentive/Penalty", by calculation.

When the Contractor meets the apprenticeship requirement of 15% an incentive will be assessed. When the Contractor fails to meet the apprenticeship requirement of 15%, a penalty will be assessed for each hour that is not achieved, unless a Good Faith Effort is approved by the Contracting Agency.

Apprenticeship Incentive/Penalty will be calculated as described below:

Percent of requirement met	Incentive	Penalty per hour of unmet requirement
100%	***$5,000.00***	N/A
90% to 99%	N/A	***$2.00***
75% to 89%	N/A	***$3.50***
50% to 74%	N/A	***$5.00***
1% to 49%	N/A	***$7.50***
0%	N/A	***$10.00**

For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an Incentive amount in the proposal to become a part of the total bid by the Contractor. 37

The Contractor shall include all related costs in the unit Bid prices of the Contract, included but not limited to implementing, developing, documenting, and administering an apprenticeship utilization program, recording and reporting hours and all other costs to comply with this provision.

1-07.9(5)A Required Documents

(February **17, 2026 APWA GSP, Option B)**

Revise this section to read:

All Statements of Intent to Pay Prevailing Wages and Affidavits of Wages Paid shall be submitted to the Engineer through the State L&I online Prevailing Wage Intent & Affidavit (PWIA) system. When apprenticeship is a requirement of the Contract, include all apprentices in PWIA.

1-07.11 Requirements for Nondiscrimination

1-07.11(2) Contractual Requirements

(November 25, 2024 APWA GSP)

Delete item 11 of the first paragraph of Section 1-07.11(2).

1-07.16 Protection and Restoration of Property

1-07.16(1) Private/Public Property

(March 14, 2022 COW GSP)

Section 1-07.16(1) is supplemented with the following:

Obtaining a site for the Contractor's mobilization, storage of materials and other general operations shall be the responsibility of the Contractor. All costs associated with securing sites shall be included in other Bid Items on the project and no other compensation will be made for this item. Contractor shall provide the City of Wenatchee with copy(s) of agreement(s).

Coordination with Property Owners
Any time a property's access is to be obstructed by construction of new cement concrete driveway entrances, the Contractor shall notify the resident or owner a minimum of three (3) days in advance of construction activities.
If the residential property has more than one access facing a City street, only one access per street may be blocked at any one time in order to construct new driveway entrances.

1 1-07.18 Public Liability and Property Damage Insurance

Delete this section in its entirety, and replace it with the following:

1-07.18 Insurance

(January 30, 2026 City of Wenatchee GSP)

1-07.18(1) General Requirements

A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer's financial condition.

B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.

C. If any insurance policy is written on a claims-made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.

D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor's insurance and shall not contribute with it.

E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.

F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency

G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days' notice to the Contractor to correct the

breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.

H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.

I. Under no circumstances shall a wrap up policy be obtained, for either initiating or maintaining coverage, to satisfy insurance requirements for any policy required under this Section. A "wrap up policy" is defined as an insurance agreement or arrangement under which all the parties working on a specified or designated project are insured under one policy for liability arising out of that specified or designated project.

1-07.18(2) Additional Insured

All insurance policies, with the exception of Workers Compensation, and of Professional Liability and Builder's Risk (if required by this Contract) shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

- the Contracting Agency and its officers, elected officials, employees, agents, and volunteers;
- Chelan County PUD No. 1 and its officers, elected officials, employees, agents, and volunteers; and
- Wenatchee Reclamation District and its officers, elected officials, employees, agents, and volunteers.

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

For Commercial General Liability insurance coverage, the required additional insured endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

1-07.18(3) Subcontractors

The Contractor shall cause each subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by subcontractors.

The Contractor shall ensure that all subcontractors of every tier add all entities listed in 1 07.18(2) as additional insureds, and provide proof of such on the policies as required by that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency evidence of insurance and copies of the additional insured endorsements of each subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

1-07.18(4) Verification of Coverage

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage with these insurance requirements or failure of Contracting Agency to identify a deficiency from the insurance documentation provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

Verification of coverage shall include:

1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as additional insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement.
3. Any other amendatory endorsements to show the coverage required herein.
4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is required on this Project, a full and certified copy of that policy is required when the Contractor delivers the signed Contract for the work.

1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Contractor's maintenance of insurance, its scope of coverage, and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the Contracting Agency's recourse to any remedy available at law or in equity.

All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible or self-insured retention shall be the responsibility of the Contractor. In the event an additional insured incurs a liability subject to any policy's deductibles or self-insured retention, said deductibles or self-insured retention shall be the responsibility of the Contractor.

1-07.18(5)A Commercial General Liability

Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. There shall be no exclusion for liability arising

from explosion, collapse or underground property damage.

The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's completed operations for at least three years following Substantial Completion of the Work.

Such policy must provide the following minimum limits:

$2,000,000	Each Occurrence
$2,000,000	General Aggregate
$2,000,000	Products & Completed Operations Aggregate
$1,000,000	Personal & Advertising Injury each offence
$1,000,000	Stop Gap / Employers' Liability each accident

At the discretion of the Contractor, the minimum limits identified herein may be met through a combination of Commercial General Liability and Umbrella Liability insurance provided that the sum of Commercial General Liability and Umbrella Liability on a per occurrence basis and aggregate basis meet or exceed the minimum limits identified herein. Under no circumstance will the contractor be permitted to reduce the Commercial General Liability limits identified above below $1,000,000.00 on a per occurrence or aggregate basis by substituting with Umbrella Liability.

1-07.18(5)B Automobile Liability

Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on a coverage form at least as broad as ISO form CA 00 01. If the work involves the transport of pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

Such policy must provide the following minimum limit:

$1,000,000	Combined single limit each accident

1-07.18(5)C Workers' Compensation

The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.

1-07.24 Rights of Way

(April 22, 2025 APWA GSP)

Delete this section and replace it with the following:

Street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor's construction activities shall be confined within these limits unless arrangements for use of private property are made as described below.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor's attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours' notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters

(May 25, 2006 APWA GSP)

Add the following new section:

1-08.0(1)Preconstruction Conference

(October 21, 2025 APWA GSP)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To review Training or Apprenticeship Plans, when applicable.
5. To discuss FSBE Goals when applicable.
6. To establish normal working hours for the work;
7. To review safety standards and traffic control; and
8. To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

Add the following new section:

1-08.0(2) Hours of Work

Except in the case of emergency or unless otherwise approved by the Engineer, the normal working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 5:00 p.m. Monday through Friday, exclusive of a lunch break. If the Contractor desires different than the normal working hours stated above, the request must be submitted in writing prior to the preconstruction conference, subject to the provisions below. The working hours for the Contract shall be established at or prior to the preconstruction conference.

All working hours and days are also subject to local permit and ordinance conditions (such as noise ordinances).

If the Contractor wishes to deviate from the established working hours, the Contractor shall submit a written request to the Engineer for consideration. This request shall state what hours are being requested, and why. Requests shall be submitted for review no later than 5 days prior to the day(s) the Contractor is requesting to change the hours.

The Contracting Agency will allow a deviation from the established working hours during work that requires the closure of Okanogan Avenue, for Work within the work area of the closure, for a period not to exceed 30 Calendar Days, as described in the Traffic Control plans. The deviation, and any other deviations that the Contracting Agency may approve, may be subject to certain other conditions, which will be detailed in writing if they are not included in the list below. For example:

1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency representatives who worked during such times. (The Engineer may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party consultants when, in the opinion of the Engineer, such work necessitates their presence.)
2. Considering the work performed on Saturdays, Sundays, and holidays as business days with regard to the contract time.
3. Considering multiple work shifts as multiple business days with respect to contract time even though the multiple shifts occur in a single 24-hour period.
4. If a 4-10 work schedule is requested and approved the nonbusiness day for the week will be charged as a business day.
5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll.

1-08.1 Subcontracting

(December 30, 2022 APWA GSP, Option A)

Section 1-08.1 is supplemented with the following:

Prior to any subcontractor or lower tier subcontractor beginning work, the Contractor shall submit to the Engineer a certification (WSDOT Form 420-004) that a written agreement between the Contractor and the subcontractor or between the subcontractor and any lower tier subcontractor has been executed. This certification shall also guarantee that these subcontract agreements include all the documents required by the Special Provision Federal Agency Inspection.

A subcontractor or lower tier subcontractor will not be permitted to perform any work under the contract until the following documents have been completed and submitted to the Engineer:

1. Request to Sublet Work (WSDOT Form 421-012), and
2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (WSDOT Form 420-004).

The Contractor shall submit to the Engineer a completed Monthly Retainage Report (WSDOT Form 272-065) within 15 calendar days after receipt of every monthly progress payment until every subcontractor and lower tier subcontractor's retainage has been released.

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Contracting Agency during the life of the contract and for a period of not less than three years after the date of acceptance of the contract. The Contractor shall retain these records for that period. The Contractor shall also guarantee that these records of all subcontractors and lower tier subcontractors shall be available and open to similar inspection or audit for the same time period.

1-08.1(7)A Payment Reporting

(November 25, 2024 APWA GSP

Delete this section and replace it with the following:

1-08.1(7)A Vacant

1-08.1(8)B Clauses Required in Subcontracts of All Tiers

(November 25, 2024 APWA GSP)

Delete item 8 of the second paragraph of Section 1-08.1(8)B.

1-08.1(9)Submittal of Executed Subcontracts

(April 22, 2025 APWA GSP, Option B)

Section 1-08.1(9) content and title are deleted and replaced with the following:

Vacant

1-08.3 Progress Schedule

1-08.3(2) General Requirements

1-08.3(2)B Type B Progress Schedule

(January 4, 2024 APWA GSP)

Revise the first paragraph to read:

The Contractor shall submit a preliminary Type B Progress Schedule at or prior to the preconstruction conference. The preliminary Type B Progress Schedule shall comply with all of these requirements and the requirements of Section 1-08.3(2).

Revise the first sentence of the second paragraph to read:

The Contractor shall submit *** 10 *** copies of a Type B Progress Schedule depicting the entire project no later than 7-calendar days after the preconstruction conference.

1-08.4 Prosecution of Work

Delete this section and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Notice to Proceed shall be given no later than June 5, 2026.

The Contractor shall commence construction activities on the project site on June 8, 2026. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

When shown in the Plans, the first order of work shall be the installation of high visibility fencing to delineate all areas for protection or restoration, as described in the Contract. Installation of high visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer to inspect the fence. No other work shall be performed on the site until the Contracting Agency has accepted the installation of high visibility fencing, as described in the Contract.

1-08.5 Time for Completion

(March 13, 1995 WSDOT GSP OPT 7)

Section 1-08.5 is supplemented with the following:

This project shall be physically completed within *** 40 *** business days.

Revise the third and fourth paragraphs to read:

Contract time shall begin to be charged after mobilization and as determined by the Owner.

Each business day shall be charged to the Contract as it occurs, until the contract work as physically complete. If substantial completion has been granted and all the authorized business days have been used, charging of business days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of business days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonbusiness days and all partial or whole days the Engineer declares as unworkable The statement will be identified as a Written Determination by the Engineer. If the Contractor does not agree with the Written Determination of business days, the Contractor shall pursue the protest procedures in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a business day then the fifth day of that week will be charged as a business day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed by the Contractor. The following events must occur before the Completion Date can be established:

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by

law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a completion date:

a. Certified Payrolls (per Section 1-07.9(5)).
b. Material Acceptance Certification Documents
c. Monthly Reports in DMCS of the amounts paid including the final payment confirmation to all firms required by Section 1-08.1(7)A if applicable
d. Final Contract Voucher Certification
e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors
f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).
g. Property owner releases per Section 1-07.24

1.08.9 Liquidated Damages

(February 17, 2026 APWA GSP, Option B)

Revise the second and third paragraphs to read:

Accordingly, the Contractor agrees:

1. To pay (according to the following formula) liquidated damages for each business day beyond the number of business days established for Physical Completion, and
2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due to the Contractor.

Liquidated Damages Formula

LD=0.15C/T

Where:
LD = liquidated damages per business day (rounded to the nearest dollar)
C = original Contract amount
T = original time for Physical Completion

When the Contract Work has progressed to Substantial Completion as defined in The Contract, the Engineer may determine the Contract Work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, the formula for liquidated damages shown above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

Section 1-08.9 is supplemented with the following:

Delayed completion of Okanogan 4 Million Gallon Reservoir Temporary Repairs will result in impacts to the Agency's domestic water system and its users and cause other inconveniences and harm.

Accordingly, the Contractor agrees:

1. To pay $7,500.00 liquidated damages per day for each day past the total allowable closure period of 30 calendar days prorated to the nearest whole hour that the work is not completed as specified in the contract documents.
2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due the Contractor.

1.09 MEASUREMENT AND PAYMENT

1-09.6 Force Account

(December 30, 2022 APWA GSP)

Supplement this section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication, that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by the Engineer.

1-09.9 Payments

(February 17, 2026 APWA GSP, Option B)

Delete the fourth paragraph and replace it with the following:

Progress payments for completed Work and material on hand will be based upon progress estimates prepared by the Engineer. A progress estimate cutoff date will be established at the preconstruction conference.

The initial progress estimate will be made not later than 30 days after the Contractor commences the Work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the Work are tentative, and made only for the purpose of determining progress payment. The progress estimates are subject to change at any time prior to the calculation of the Final Payment.

The value of the progress estimate will be the sum of the following:

1. Unit Price Items in the Bid Form — the approximate quantity of acceptable units of Work completed multiplied by the unit price.
2. Lump Sum Items in the Bid Form — based on the approved Contractor's lump sum breakdown for that item, or absent such a breakdown, based on the Engineer's determination.
3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job site or other storage area approved by the Engineer.
4. Change Orders — entitlement for approved extra cost or completed extra Work as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
2. The amount of Progress Payments previously made; and
3. Funds withheld by the Contracting Agency for disbursement in accordance with the Contract Documents.

Progress payments for Work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any Work has been satisfactorily completed. The determination of payments under the Contract will be final in accordance with Section 1-05.1.

The sixth paragraph of Section 1-09.9 is deleted.

1-09.11 Disputes and Claims

1-09.11(3) Time Limitation and Jurisdiction

(December 30, 2022 APWA GSP)

Revise this section to read*:*

For the convenience of the parties to the Contract it is mutually agreed by the parties that all claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that all such claims or causes of action shall be brought only in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to all such claims or causes of action. It is further mutually agreed by the parties that when claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-09.13 Claim Resolution

1-09.13(1) Conditions Precedent to Binding Arbitration or Litigation

1-09.13(1)A General

(December 30,2022 APWA GSP)

Revise this section to read:

Prior to seeking claims resolution through arbitration or litigation, the Contractor shall proceed in accordance with Sections 1-04.5 and 1-09.11. The provisions of Sections 1-04.5 and 1-09.11 must be complied with in full as a condition precedent to the Contractor's right to seek claim resolution through binding arbitration or litigation.

Any claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be resolved, as prescribed herein, through binding arbitration or litigation.

The Contractor and the Contracting Agency mutually agree that those claims or causes of action which total $1,000,000 or less, which are not resolved by mediation, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

The Contractor and the Contracting Agency mutually agree that those claims or causes of action in excess of $1,000,000, which are not resolved by mediation, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

1-09.13(3) Arbitration

1-09.13(3)A Arbitration General

(January 19, 2022 APWA GSP)

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims subject to arbitration are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

1-09.13(4) Venue for Litigation

(December 30, 2022 APWA GSP)

Revise this section to read:

Litigation shall be brought in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. It is mutually agreed by the parties that when litigation occurs, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

(November 21, 2022 COW GSP)

Add the following new section:

1-09.14 Attorney Fees

In the event any action is filed in connection with the Contract, each party shall bear its own attorney fees and costs incurred therein.

END SECTION 01 00 00

SECTION 01 10 00 – SUMMARY OF WORK

PART 1 -- GENERAL

1.01 THE SUMMARY

A. The Work to be performed under this Contract shall consist of furnishing tools, equipment, materials, supplies, and manufactured articles, and furnishing all labor, transportation, and services, including fuel, power, water, and essential communications, and performing all work or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. The Work shall be complete, and all work, materials, and services not expressly indicated or called for in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith shall be provided by the Contractor as though originally so indicated, at no increase in cost to the Owner.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of this Contract comprises the repair and rehabilitation of the Okanogan 4 MG Reservoir.

B. The Work is located at 1573 Okanogan Avenue, at approximately the intersection Okanogan Avenue and Gehr St, in the City of Wenatchee, WA.

1.03 CONTRACT METHOD

A. The Work hereunder will be constructed under a unit-price contract, based on the quantities provided by the contract, and field verified by the Contractor.

1.04 WORK ACCESS

A. Access to the site is limited to 7:00 AM to 5:00 PM, Monday through Friday.

1.05 CONTRACTOR USE OF SITE

A. The Contractor's use of the Site shall be limited to its construction operations, including on-Site storage of materials, on-Site fabrication facilities, and field offices.

1.06 MOBILIZATION

A. SUMMARY

1. Contractor shall mobilize as required for the proper performance and completion of the Work and in accordance with the Contract Documents.

2. Mobilization shall include at least the following items:

a. Installing temporary construction power, wiring, and lighting facilities, as needed to complete the work.

b. Providing on-Site sanitary facilities and potable water facilities.

c. Arranging for and erection of Contractor's Work and staging area.

d. Obtaining required permits.

e. Having OSHA required notices and establishing safety programs.

B. PAYMENT FOR MOBILIZATION

1. The Contractor's attention is directed to the condition that no payment for mobilization, or any part thereof, will be recommended for payment under the Contract until mobilization items listed above have been completed.

1.07 CONSTRUCTION RESTRAINTS

A. Operation of Equipment

1. Contractor shall not operate any valving for the reservoir inlet or outlet piping. Owner personnel shall operate valves.

B. Rehabilitation and Repair Sequencing

1. The Contractor shall be responsible for development of the rehabilitation and repair sequencing. In implementing the rehabilitation and repair sequencing. The following general guidelines shall be used by the Contractor in planning the sequence of rehabilitation and repair.

a. Safe working conditions for personnel shall be maintained during rehabilitation, modification, and demolition Work. The foregoing includes at least confined space entry, the provision of temporary equipment guards, supports, warning signs, walkways, covers over openings, handrailing, and protection of electrical equipment and power supply.

b. Temporary facilities shall be constructed in accordance with applicable codes and regulations to operate safely and properly.

c. Valves to be temporarily shut off during the Work shall be tagged as such and shall be chained and padlocked, or other measures mutually agreed upon.

1.08 PROJECT MEETINGS

A. Preconstruction Conference

1. Prior to the commencement of Work at the Site, a preconstruction conference will be held at a mutually agreed time and place. The conference shall be attended by the Contractor’s Project Manager, its superintendent, and its subcontractors as the Contractor deems appropriate. Other attendees will be:

a. Engineer and the Resident Project Representative.

b. Representatives of Owner.

c. Others as requested by Contractor, Owner, or Engineer.

2. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The complete agenda will be furnished to the Contractor prior to the meeting date. However, the Contractor should be prepared to discuss all of the items listed below.

    a. Status of Contractor's insurance and bonds.

    b. Contractor's tentative schedules.

    c. Processing applications for payment.

    d. Critical work sequencing.

    e. Field decisions and Change Orders.

    f. Use of Site, office and storage areas, security, housekeeping, and Owner's needs.

    g. Contractor's assignments for safety and first aid.

    h. Daily Report Form which the Engineer will furnish.

    i. Submittal Transmittal Form which the Engineer will furnish.

3. The Engineer will preside at the preconstruction conference and will arrange for keeping and distributing the minutes to all persons in attendance.

B. Progress Meetings

1. The Engineer will schedule and hold regular on-Site progress meetings at least weekly and at other times as requested by Contractor or as required by progress of the Work. The Contractor, Engineer, Construction Inspector, and all subcontractors active on the Site shall attend each meeting. Contractor may at its discretion request attendance by representatives of its suppliers, manufacturers, and other subcontractors.

2. The Engineer will preside at the progress meetings and will arrange for keeping and distributing the minutes. The purpose of the meetings is to review the progress of the Work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop. During each meeting, the Contractor shall present any issues that may impact its progress with a view to resolve these issues expeditiously.

1.09 DAILY QUANTITY REPORTS

A. Daily progress of each type of repair shall be tracked and reported using bid price.

1.10 INSPECTION AND TESTING SERVICE

A. Inspection and testing laboratory service shall comply with the following:

1. Unless indicated otherwise by the Technical Specifications, the Owner will provide or appoint, employ, and pay for services of an independent firm to perform inspection and testing or will perform inspection and testing itself.

2. The Owner or independent firm will perform inspections, testings, and other services as required for completion of the work. Items to be tested shall include at a minimum,

    a. Materials testing of existing reinforcing steel, and

    b. Testing of water samples to ensure disinfection of facilities after completion of the work.

3. Reports of testing, regardless of whether the testing was the Owner's or the Contractor's responsibility, will be submitted to the Engineer in duplicate indicating observations and results of tests.

4. The Contractor shall cooperate with the Owner or independent firm and furnish samples of materials, equipment, tools, storage, and assistance as requested.

5. The Contractor shall notify Engineer 24 hours prior to the expected time for operations requiring inspection and laboratory testing services.

6. Retesting required because of non-conformance to requirements shall be performed by the same independent firm on instructions by the Engineer. The Contractor shall bear all costs from such retesting.

7. For samples and tests required for Contractor's use, the Contractor shall make arrangements with an independent firm for payment and scheduling of testing. The cost of sampling and testing for the Contractor's use shall be the Contractor's responsibility.

1.11 PROTECTION OF EXISTING FACILITIES

A. GENERAL

1. The Contractor shall conduct a pre-construction Site Condition Survey of the entire Project. Site Condition Survey shall consist, at a minimum, photographs of the following:

    a. Roadways used to access the Site or haul materials and equipment to the Site.

    b. Work areas, including actual work sites, access corridors, disposal areas, and staging areas.

    c. Any work completed by other contractors at the Site that will be connected to or otherwise affected by the Work.

    d. Driveways, sidewalks, and buildings which might be affected by the Work.

2. The Contractor shall protect all existing structures, facilities, and adjacent properties. If damage occurs, the Contractor shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than prior to such damage or temporary relocation, all in accordance with the Contract Documents. Initial condition shall be based on condition shown in preconstruction Site Condition Survey.

3. While work is ongoing, the contractor shall include provisions to protect all reservoir piping penetrations from debris potentially entering piping and other structures.

B. LAWN AREAS

1. Lawn or landscaped areas damaged during construction shall be repaired to match the pre-construction condition as indicated by the preconstruction photographs.

1.12 FINAL CLEANUP

A. The Contractor shall promptly remove from the vicinity of the completed Work, all rubbish, unused materials, concrete forms, construction equipment, and temporary structures and facilities used during construction. Final acceptance of the Work by the Owner will be withheld until the Contractor has satisfactorily performed the final cleanup of the Site, reservoir chlorine disinfection, and successful test results of bacteria sampling..

1.13 CLOSEOUT

A. FINAL SUBMITTALS

1. The Contractor, prior to requesting final payment, shall obtain and submit the following items to the Engineer for transmittal to the Owner:

a. Written guarantees, where required.

2. Evidence of payment and release of liens in accordance with conditions of the Contract.

3. Consent of Surety to final payment.

4. Releases from all parties who are entitled to claims against the subject project, property, or improvement pursuant to the provisions of law.

B. MAINTENANCE AND GUARANTEE

1. The Contractor shall make all repairs and replacements promptly upon receipt of written order from the Owner. If the Contractor fails to make such repairs or replacements promptly, the Owner reserves the right to do the Work and the Contractor and its surety shall be liable to the Owner for the cost thereof.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

END OF SECTION

SECTION 01 26 57 – CHANGE ORDER REQUESTS

PART 1 -- GENERAL

1.01 REQUIREMENTS INCLUDED

A. Promptly implement change order procedures.

1. Provide full written data required to evaluate the time and associated costs of changes.

2. Maintain detailed records of work done on a time-and-material basis.

3. Provide full documentation to Engineer.

1.02 DEFINITIONS

A. Change Order: See General Conditions and Supplementary Conditions.

B. Work Directive Change: A written order to the Contractor, signed by Owner and Engineer, which amends the Contract Documents as described, and authorizes Contractor to proceed with a change which affects the Contract Price or the Contract Time, for inclusion in a subsequent Change Order.

C. Field Order: The Engineer may issue, as required, a written order, instructions, or interpretations, signed by Engineer making minor changes in the Work not involving a change in Contract Price or Contract Time.

1.03 PRELIMINARY PROCEDURES

A. Owner or Engineer may initiate changes by submitting a proposal request to Contractor. Such request is for information only, and is not an instruction to execute the changes, nor to stop Work in progress. Request will include:

1. Detailed description of the change, products, and location of the change in the Project.

2. Supplementary or revised Drawings and Specifications.

3. The projected time span for making the change, and a specific statement as to whether overtime work is, or is not, authorized.

4. A specific period of time during which the requested price will be considered valid.

B. Contractor may initiate changes by submitting a written notice to Engineer, containing:

1. Description of the proposed changes.

2. Statement of the reason for making the changes.

3. Statement of the effect on the Contract Price and the Contract Time.

4. Statement of the effect on the work of subcontractors or other contractors.

5. Documentation supporting any change in Contract Price and/or Contract Time.

1.04 WORK DIRECTIVE CHANGE

A. In lieu of proposal request, Owner and Engineer may issue a Work Directive Change ordering the Contractor to proceed with a change for subsequent inclusion in a Change Order.

B. The Work Directive Change will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change, and will designate the method of determining any change in the Contract Price and/or Contract Time.

C. Owner and Engineer will sign and date the Work Directive Change as authorization for the Contractor to proceed with the changes.

D. Contractor may sign and date the Work Directive Change to indicate agreement with the terms therein.

1.05 DOCUMENTATION OF PROPOSALS AND CLAIMS

A. Support each quotation for a lump sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data including labor, equipment, overhead and profit to allow Engineer to evaluate the quotation.

B. On request provide additional data to support time and cost computations:

1. Labor required.

2. Equipment required.

3. Products required.

a. Recommended source of purchase and unit cost.

b. Quantities required.

4. Taxes, insurance and bonds.

5. Credit for work deleted from Contract, similarly detailed and documented.

6. Overhead and profit.

7. Justification for any change in Contract Time. Justification shall include a revised project schedule identifying the impact of the change.

C. Support each claim for additional costs, and for work done on a time-and-material basis, with documentation as required for a lump-sum proposal, plus additional information:

1. Name of the Owner' authorized agent who ordered the work, and date of the order.
2. Dates and times work was performed, and by whom.
3. Time record, summary of hours worked, and hourly rates paid (Certified Payroll).
4. Receipts and invoices for:
    a. Equipment used, listing dates and times of use, and hourly rates.
    b. Products used, listing of quantities and receipted bills.
    c. Subcontractors billings and description of work performed.

1.06 PREPARATION OF CHANGE ORDERS

A. Engineer will prepare each Change Order.

B. Form: Change Order: Form included in Division 0.

C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.

D. Change Order will provide an accounting of the adjustment in the Contract Price and/or Contract Time.

1.07 LUMP-SUM OR FIXED PRICE CHANGE ORDER

A. Content of Change Orders will be based on, either:

1. Engineer’s proposal request and Contractor's responsive proposal as mutually agreed between Owner and Contractor.
2. Contractor's proposal for a change, as recommended by Engineer.

B. Owner will sign and date the Change Order as authorization for the Contractor to proceed with the changes.

C. Contractor shall sign and date the Change Order to indicate agreement with the terms therein.

1.08 UNIT PRICE CHANGE ORDER

A. Content of Change Orders will be based on, either:

1. Engineer's definition of the scope of the required changes.
2. Contractor's proposal for a change, as recommended by Engineer.
3. Measurement of completed work.

B. The amounts of the unit prices to be:

1. Those stated in the Agreement.

2. Those mutually agreed upon between Owner and Contractor.

C. When quantities of each of the items affected by the Change Order can be determined prior to start of the Work:

1. Owner will sign and date the Change Order as authorization for Contractor to proceed with the changes.

2. Contractor shall sign and date the Change Order to indicate agreement with the terms therein.

D. When quantities of the items cannot be determined prior to start of the Work:

1. Owner and Engineer will issue a Work Directive Change directing Contractor to proceed with the change on the basis of unit prices, and will cite the applicable unit prices.

2. At completion of the change, Engineer will determine the cost of such work based on the unit prices and quantities used. Contractor shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.

3. Engineer will sign and date the Change Order to establish the Engineer's recommended change in Contract Price and in Contract Time.

4. Owner will sign and date the Change Order as authorization.

5. Contractor shall sign and date the Change Order to indicate agreement with the terms therein.

E. TIME AND MATERIAL WORK DIRECTIVE CHANGE AND CHANGE ORDER

1. Owner and Engineer will issue a Work Directive Change directing Contractor to proceed with the changes.

2. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in paragraph 1.05 Documentation of Proposals and Claims.

3. Engineer will recommend the allowable cost of such work.

4. Engineer will sign and date the Change Order to establish the Engineer's recommended change in Contract Price and in Contract Time.

5. Owner will sign and date the Change Order as authorization.

6. Contractor shall sign and date the Change Order to indicate their agreement therewith.

F. CORRELATION WITH CONTRACTOR'S SUBMITTALS

1. Periodically revise Bid Tabs and Request for Payment forms to record each change as a separate item of Work, and to record the adjusted Contract Price.

2. Periodically revise the Construction Schedule to reflect each change in Contract Time. Revise subschedules to show changes for other items of work affected by the changes.

3. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED

END OF SECTION

SECTION 01 33 00 – SUBMITTAL PROCEDURES

PART 1 -- GENERAL

1.01 SUMMARY

A. Wherever submittals are required by the Contract Documents, submit them to the Engineer.

B. Within 7 Days after the date of commencement as stated in the Notice to Proceed, submit the following items for review:

1. Submittal Schedule

a. Submit a preliminary schedule of:

1) Product Data,

2) Shop Drawings,

3) Samples, and

4) Proposed Substitutes ("or equal").

b. Base the schedule of submittals on Contractor's priority, planned construction sequence and schedule, long-lead items, and size of submittal package.

c. Allow time for resubmittals.

C. COORDINATION OF SUBMITTALS

1. Schedule and coordinate submittals as needed to meet schedule.

2. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing equipment in service.

3. Coordinate requests for substitutions from all subcontractors to assure compatibility of space, of operating elements, and effect on work of other sections.

1.02 PRODUCT DATA

A. Submit only pages which are pertinent; mark each copy of standard printed data to identify pertinent products, referenced to Specification Section and Article number. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances. Provide Material Safety Data Sheets required by OSHA for all chemicals to be supplied under this Contract. Submittals made without the required transmittal form which clearly identifies the respective specification section number for which the submittal is being made will be returned without review. It is the Contractor’s responsibility to make clearly identified submittals.

B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the Work. Delete information not applicable.

C. Provide manufacturer's preparation, assembly, delivery, storage, installation, start up, adjusting, and finishing instructions.

If similar or identical submittal material can be submitted under more than one specification section, the Contractor shall make separate clearly identified submittals for each specification section. Submittal materials for any specification section shall be complete for that section; partial submittals are unacceptable.

1.03 SHOP DRAWINGS

A. Wherever called for in the Contract Documents or where required by the Engineer, furnish one copy plus one reproducible copy of each Shop Drawing submittal.

B. Shop Drawings may include detail design calculations, shop-prepared drawings, fabrication and installation drawings, erection drawings, lists, graphs, catalog sheets, data sheets, and similar items.

C. Whenever the Contractor is required to submit design calculations as part of a submittal, such calculations shall bear the signature and seal of an engineer registered in the appropriate branch and in the state wherein the Project is located, unless otherwise indicated.

D. Present in a clear and thorough manner. Title each drawing with Project name and number; identify each element of drawings by reference to sheet number, detail and schedule of Contract Documents.

E. Identify field dimensions; show relation to adjacent or critical features or Work or products.

F. Minimum Sheet Size: multiples of 8-½-in x 11-in.

G. Required format: PDF

1.04 SAMPLES

A. Product samples where applicable or requested for submittal must include manufacturer name, trade name, model/type number, and physical characteristics (size, color, texture) to compare against specifications. Samples should represent the final product's quality, color, and finish, with identification labels, contractor stamps certifying review, and conformance with project documents.

1.05 SUBSTITUTIONS

A. Statement indicating why the specified product is being requested for substitution by a comparable product.

B. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.

C. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

D. Product Data, including drawings and descriptions of products and fabrication and installation procedures.

E. Samples, where applicable or requested.

1.06 SUBMITTALS

A. Submittals shall be accompanied by the Engineer's standard submittal transmittal form, a reproducible copy of which is available from the Engineer.

B. A submittal without the form, or where applicable items on the form have not been completed, will be returned for resubmittal.

C. Organization

1. Use a single submittal transmittal form for each technical specification Section or item or class of material or equipment for which a submittal is required.

2. A single submittal covering multiple Sections will not be accepted, unless the primary specification references other Sections for components: For example, if a pump Section references other Sections for the motor, shop-applied protective coating, anchor bolts, local control panel, and variable frequency drive, a single submittal would be accepted, whereas a single submittal covering vertical turbine pumps and horizontal split-case pumps would not be accepted.

3. On the transmittal form, index the components of the submittal.

4. Relate the submittal components to specification paragraph and subparagraph, Drawing number, detail number, schedule title, room number, or building name, as applicable.

5. Unless otherwise indicated, match terminology and equipment names and numbers used in the submittals with those used in the Contract Documents.

D. Format

1. Submittals shall be submitted as a PDF document.

2. Number every page in a submittal in sequence.

3. Where product data from a manufacturer is submitted, clearly mark which model is proposed, with complete pertinent data capacities, dimensions, clearances, diagrams, controls, connections, anchorage, and supports.

4. Present a sufficient level of detail for assessment of compliance with the Contract Documents.

5. Before accepting the number system option in the following Subparagraph, the Specifier should verify that the document tracking system to be used in the field office will function under an alphanumeric system. If not, select the second optional wording for compatibility.

6. Numbering of submittals

    a. Assign to each submittal a unique number.

    b. Number the submittals sequentially, with the submittal numbers clearly noted on the transmittal.

    c. Assign original submittals a numeric submittal number followed by a decimal point and a numeric digit in order to distinguish between the original submittal and each resubmittal: For example, if submittal "25.1" requires a resubmittal, the first resubmittal will bear the designation "25.2" and the second resubmittal will bear the designation "25.3," and so on.

E. Disorganized submittals that do not meet the requirements of the Contract Documents will be returned without review.

F. Engineer's Review

1. Except as otherwise indicated, the Engineer will return electronic copies of each submittal to the Contractor with comments noted thereon, within 7 Days following receipt by the Engineer.

2. It is considered reasonable that the Contractor shall make a complete and acceptable submittal to the Engineer by the first resubmittal on an item.

3. The Owner reserves the right to withhold monies due to the Contractor to cover additional costs of the Engineer's review beyond the first resubmittal.

4. The Engineer's maximum review period for each submittal or resubmittal will be 7 Days.

G. If a submittal is returned to the Contractor marked "NO EXCEPTIONS TAKEN," formal revision and resubmission will not be required.

H. If a submittal is returned marked "MAKE CORRECTIONS NOTED," the Contractor shall make the corrections on the submittal, but formal revision and resubmission will not be required.

I. Resubmittals

1. If a submittal is returned marked "AMEND-RESUBMIT," the Contractor shall revise the submittal and resubmit the required number of copies.

2. Resubmittal of portions of multi-page or multi-drawing submittals will not be accepted: For example, if a Shop Drawing submittal consisting of 10 drawings contains one drawing noted as "AMEND-RESUBMIT," the submittal as a whole is deemed "AMEND-RESUBMIT," and 10 drawings are required to be resubmitted.

3. Every change from a submittal to a resubmittal or from a resubmittal to a subsequent resubmittal shall be identified and flagged on the resubmittal.

J. Rejected Submittals

1. If a submittal is returned marked "REJECTED-RESUBMIT," it shall mean either that the proposed material or product does not satisfy the specification, the submittal is so incomplete that it cannot be reviewed, or is a substitution request that will not be reviewed because it is submitted after award of the Contract.

2. In the first 2 cases, the Contractor shall prepare a new submittal and shall submit the required number of copies.

3. The resubmittal of rejected portions of a previous submittal will not be accepted.

K. The fabrication of an item may commence only after the Engineer has reviewed the pertinent submittals and returned copies to the Contractor marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."

L. Corrections indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as changes to the contract requirements.

M. Review by Contractor

1. Submittals shall be carefully reviewed by an authorized representative of the Contractor prior to submission to the Engineer.

2. Each submittal shall be dated and signed by the Contractor as being correct and in strict conformance with the Contract Documents.

3. In the case of Shop Drawings, each sheet shall be so dated and signed.

4. Any deviations from the Contract Documents shall be noted on the transmittal sheet.

5. The Engineer will only review submittals that have been so verified by the Contractor.

6. Non-verified submittals will be returned to the Contractor without action taken by the Engineer, and any delays caused thereby shall be the total responsibility of the Contractor.

N. Conformance

1. Corrections or comments made on the Contractor's Shop Drawings during review shall not relieve the Contractor from compliance with Contract Drawings and Specifications.

2. A lack of comments made on the Contractor's Shop Drawings during review shall not relieve the Contractor from compliance with Contract Drawings and Specifications.

3. Review is for conformance to the design concept and general compliance with the Contract Documents only.

4. The Contractor shall be responsible for confirming and correlating quantities and dimensions, fabrication processes and techniques, coordinating Work with the trades, and satisfactory and safe performance of the Work.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

END OF SECTION

SECTION 01 43 33 – MANUFACTURER'S FIELD SERVICES

PART 1 -- GENERAL

1.01 WORK INCLUDED

A. Installer training.

B. Observation of the installation of materials and products.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION

3.01 INSTALLER TRAINING

A. Provide contractor training to ensure that products or systems are installed correctly according to manufacturer specifications, regulatory requirements, and operational needs.

B. Training shall generally provide the following objectives.

1. Pre-installation: Site evaluation, safety checks, and preparation steps.

2. Technical Procedures: Detailed, step-by-step installation instructions.

3. Tools & Techniques: Proper usage of specialized tools and equipment.

4. Troubleshooting: Identifying and resolving common installation errors.

C. Where certification is required, training shall be sufficient to "approve" or "certify" installers to maintain warranties for each product installed.

3.02 OBSERVING INSTALLATION, CHECKING, INSPECTION AND CERTIFICATION OF INSTALLATION

A. Furnish the services of a manufacturer's qualified representative to observe the actual installation of repair products.

B. Manufacturer's qualified representative shall provide support to ensure proper installation and to maintain warranties for each product installed.

C. The minimum period of time that the service representatives shall perform the services described herein shall be 3 days for training, observation, and certification. Any additional time required to certify contractor works meets manufacturers standards shall be at no additional cost to the Owner.

3.03 SCHEDULE OF MANUFACTURER'S SERVICE REPRESENTATIVE

A. Services of the manufacturer's representatives for observing installation of each type of the repair product included in the drawings.

END OF SECTION

SECTION 01 55 26 – TRAFFIC CONTROL

PART 1 -- GENERAL

1.01 DESCRIPTION

This section specifies the requirements for preparation, approval, implementation, maintenance, and removal of temporary traffic control measures, including the Traffic Control Plan (TCP) and the provision of a qualified Traffic Control Supervisor (TCS), to safely manage vehicular, pedestrian, bicycle, and emergency traffic affected by construction activities.

1.02 REFERENCES

- Manual on Uniform Traffic Control Devices (MUTCD), current edition
- State and local agency traffic control standards and specifications
- Applicable RCWs, WACs, and local ordinances

1.03 SUBMITTALS

A. Submit a site-specific TCP for review and approval prior to commencing any work that impacts public or private traffic.

B. Submit documentation verifying current TCS certificate for each individual proposed to serve in the TCS role.

PART 2 – TRAFFIC CONTROL PLAN (TCP)

2.01 GENERAL REQUIREMENTS

A. The Contractor shall prepare, submit, and implement a site-specific TCP for all work affecting traffic.

B. The TCP shall conform to the MUTCD and all applicable state and local requirements.

C. Approval of the TCP does not relieve the Contractor of responsibility for safe traffic control operations.

2.02 TCP CONTENTS

A. The TCP shall include, at a minimum:

1. Plan view drawings showing work limits and traffic control layout
2. Temporary traffic control devices, including:
    - Signs, channelizers, cones, drums, barricades
    - Arrow boards, message boards, and temporary signals if required
    - Lane closures, tapers, transitions, and lengths
    - Pedestrian and ADA-compliant access routes and detours
    - Bicycle accommodations, where applicable
    - Flagging locations and operations, if required
    - Construction staging and phasing

- Posted speeds and work zone speed reductions
- Emergency vehicle access provisions

2.03 TCP REVISIONS

A. The Contractor shall revise the TCP as required due to field conditions, phasing changes, or safety concerns.

B. Revised TCPs shall be submitted for approval prior to implementation unless an immediate safety concern requires prompt corrective action.

2.04 IMPLEMENTATION

A. Traffic control devices shall be installed prior to starting work and maintained throughout construction operations.

B. Devices shall be removed or covered when no longer required.

PART 3 – TRAFFIC CONTROL SUPERVISOR (TCS)

3.01 QUALIFICATIONS

A. The Contractor shall designate a Traffic Control Supervisor (TCS) responsible for all traffic control operations.

B. The TCS shall hold a current, valid TCS certification recognized by the governing agency.

C. Certification shall be maintained for the duration of the project.

3.02 DUTIES AND RESPONSIBILITIES

A. The TCS shall:
- Implement the approved TCP in the field
- Ensure traffic control devices meet MUTCD requirements
- Oversee installation, inspection, adjustment, and removal of traffic control
- Conduct daily inspections of traffic control setups and after any modifications
- Coordinate traffic control activities with the Engineer, inspectors, and emergency services
- Promptly correct any unsafe or non-compliant traffic control conditions
- Suspend affected work if traffic control cannot be safely maintained

3.03 PRESENCE ON SITE

A. The TCS shall be present on site whenever traffic control is being installed, modified, or removed.

B. The TCS shall be readily available during active traffic control operations.

END OF SECTION

SECTION 01 74 10 – TESTING AND DISINFECTION OF CONCRETE WATER STRUCTURES

PART 1 -- GENERAL

1.01 THE SUMMARY

A. The Contractor shall disinfect concrete hydraulic structures in accordance with the Contract Documents.

B. The Contractor shall provide materials and labor to disinfect the reservoir, and the Owner shall provide operational support for filling and testing the reservoir.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Reference Specifications

01 33 00	Submittal Procedures
03 01 00	Maintenance of Concrete

B. Reference Standards

American Water Works Association (AWWA)	
ANSI/AWWA B301	Liquid Chlorine
ANSI/AWWA B300	Hypochlorites
ANSI/AWWA C652	Disinfection of Water Storage Facilities

1.03 CONTRACTOR SUBMITTALS

A. Submittals shall include:

1. Chlorine product data and dosing measurements.

PART 2 -- PRODUCTS

2.01 EQUIPMENT AND MATERIALS

A. Chlorine for disinfection may be in the form of liquid chlorine, sodium hypochlorite solution, or calcium hypochlorite granules or tablets.

PART 3 -- EXECUTION

3.01 GENERAL

A. The reservoir and all connected structures and appurtenant piping shall be disinfected.

B. Disinfection operations shall be scheduled as late as possible during the Contract Time to maximize the degree of sterility of the facilities at the time the Work is accepted by the Owner.

3.02 PRELIMINARY CLEANING AND FLUSHING

A. Prior to disinfecting, hydraulic structures and accessible piping shall be cleaned by thoroughly hosing down all surfaces with a high pressure hose and nozzle of sufficient size to deliver a minimum flow of 50 gpm. Water, dirt, and foreign material accumulated in this cleaning operation shall be removed from within the reservoir.

3.03 DISINFECTION OF STRUCTURES AND APPURTENANT PIPELINES

A. Structures which store or convey potable water shall be disinfected by chlorination in accordance with the requirements of ANSI/AWWA C652 - Disinfection of Water Storage Facilities, using chlorination Method 2 abbreviated herein.

B. Chlorination: The Contractor shall spray a strong chlorine solution of approximately 200 mg/L on all interior surfaces of the structure including accessible piping. Piping and drain lines shall be chlorinated sufficiently to obtain 10 mg/L.

C. Following this, the Owner shall fill, sample, and test the reservoir water quality.

D. If disinfection does not meet the requirements, contractor shall be responsible for subsequent materials and labor to disinfect the reservoir, the costs for work provided by the Owner for operational support for filling and testing the reservoir.

END OF SECTION

SECTION 01 78 36 – WARRANTIES

PART 1 -- GENERAL

1.01 REQUIREMENTS INCLUDED

A. Preparing and submitting of warranties.

B. Warranties shall begin on date of substantial completion or later.

1.02 FORM OF SUBMITTALS

A. Electronic PDFs.

B. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Contract Documents, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.

C. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

1.03 PREPARATION OF SUBMITTALS

A. Obtain warranties and bonds, executed by responsible subcontractors, suppliers, and manufacturers. All warranty coverage shall be extended directly to the benefit of the Owner.

B. Verify that documents are in proper form, contain full information, and are notarized.

C. Co-execute submittals when required.

D. Retain warranties and bonds until time specified for submittal.

1.04 TIME OF SUBMITTALS

A. Submit within ten (10) days after date of substantial completion, prior to final application for payment.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION (NOT USED)

END OF SECTION

SECTION 02 41 00 – DEMOLITION

PART 1 -- GENERAL

1.01 SUMMARY

A. The Contractor shall provide all labor, materials, equipment and incidentals as shown, specified and required for demolitions of existing civil, and structural, facilities as indicated, in accordance with the Contract Documents.

1.02 COORDINATION

A. The Work as indicated is not all-inclusive, and the Contractor shall be responsible to perform the rehabilitation and repair indicated plus that which can be reasonably inferred from the Contract Documents as necessary to complete the Project. The Specifications and Drawings identify the major facilities that shall be rehabilitated and repaired.

B. The Contractor shall note that the Drawings used to indicate demolition, rehabilitation and repair are based on field visits and as-built drawings. The as-builts have been reproduced in the Drawings to show existing conditions and to clarify the scope of Work. The information provided may not be complete or accurate. The Contractor shall conduct a comprehensive survey at the Site to verify the correctness and exactness of the Drawings and the scope of Work.

C. The Contractor shall be responsible for acquiring appropriate necessary permits for the work. Copies of the permits shall be submitted to the Owner prior to commencement of demolition.

D. The contractor shall include provisions to protect all existing facilities that remain from debris potentially entering piping and other structures where contamination may occur when the system is placed back into operation.

E. Protection:

1. Closing or obstructing of roadways and passageways adjacent to the Work by the placement or storage of materials will not be permitted, and all operations shall be conducted with a minimum interference to traffic on these ways.

2. Sidewalk adjacent to the Okanogan 4MG Reservoir shall be closed during the duration of the project. The contractor shall install a pedestrian detour with signage directing pedestrians to an alternative route approved by the City.

3. Protect inlet/out and overflow grates and piping from debris prior to and during construction. Remove inlet/out and overflow grate and piping protection after construction and prior to reservoir disinfection.

1.03 REFERENCE SPECIFICATIONS

A. Reference Specifications

01 33 00	Submittal Procedures
03 01 00	Maintenance of Concrete
03 21 00	Reinforcement Bars
03 53 00	Concrete Topping
07 71 29	Manufactured Roof Expansion Joint
07 92 13	Elastomeric Joint Sealant

1.04 DEMOLITION

A. Existing features indicated or required to be demolished as part of the Work shall be removed and disposed of unless otherwise indicated. Removed items shall be disposed of offsite by the Contractor.

1.05 REPAIR

A. Following demolition, work shall be performed to fix specific localized defects or damage in a structure, component, or material.

1.06 REHABILITATION

A. Following localized repairs work shall continue to restore or improve the overall performance, structural integrity, or service life of an entire system or structure.

1.07 RESTORATION

A. Existing civil, landscaping, structural, electrical, and instrumentation Work disturbed or damaged by repair and rehabilitation activities shall be restored to pre-existing condition or better.

B. Damaged items shall be repaired or replaced with new items to restore items or surfaces to a condition equal to and matching that existing prior to damage.

1.08 DISPOSAL

A. The Contractor shall be responsible for the offsite disposal of debris resulting from demolition, repair, and rehabilitation in compliance with local, state, and federal codes and requirements.

PART 2 -- PRODUCTS – [NOT USED]

PART 3 -- EXECUTION

3.01 GENERAL

A. The Contractor shall coordinate demolition, repair, and rehabilitation and Work with the Owner and Engineer. Unless otherwise indicated, the Contractor shall be responsible for the sequence of activities, but shall refer to the . Work shall be performed in accordance with applicable safety rules and regulations.

B. The Contractor shall verify that any utilities connected to structures, and equipment, are rendered inoperable, or adequately bypassed with temporary utilities before proceeding with demolition, rehabilitation and repair.

C. The Contractor shall take precautions to avoid damage to adjacent facilities and properties and to limit the Work activities to the extent indicated. If rehabilitation and repair beyond the scope indicated is required, the Contractor shall obtain approval from the Engineer prior to commencing.

3.02 PROTECTION OF EXISTING FACILITIES

A. Before beginning any demolition, repair, and rehabilitation, the Contractor shall carefully survey the existing facilities and examine the Specifications and Drawings to determine the extent of demolition, repair, and rehabilitation and coordination with the Work.

B. Persons shall be afforded safe passages around areas of demolition.

C. Structural elements shall not be overloaded. The Contractor shall be responsible for shoring, bracing, or adding new supports as may be required for adequate structural support as a result of Work performed under this Section. The Contractor shall remove temporary protection when the Work is complete or when so authorized by the Engineer.

D. The Contractor shall carefully consider bearing loads and capacities before placement of equipment and material on adjacent facilities, on Site and in the 4 MG Reservoir. In the event of any questions as to whether an area to be loaded has adequate bearing capacity, the Contractor shall consult with the Engineer prior to the placement of such equipment or material.

E. The Contractor shall promptly repair damages caused to adjacent facilities, on Site and in the 4 MG Reservoir by demolition operations at no cost to the Owner.

3.03 RESTORATION

A. Certain areas of existing structures, piping, conduits, and the like will be affected by Work necessary to complete modifications under this Contract. The Contractor shall be responsible to restore those areas affected by its construction activities.

3.04 DISPOSAL

A. Demolition and removal of debris shall minimize interference with roads, streets, walks, and other adjacent occupied or used facilities that shall not be closed or obstructed without permission from the Owner. Alternate routes shall be provided around closed or obstructed traffic ways.

B. Site debris, rubbish, and other materials resulting from rehabilitation and repair operations shall be legally removed and disposed of. Structures and equipment to be demolished shall be cleaned prior to demolition and the wash water properly disposed of. No trace of these structures shall remain prior to placing of backfill in the areas from which structures were removed.

C. Refuse, debris, and waste materials resulting from demolition and clearing operations shall not be burned.

3.05 OCCUPANCY AND POLLUTION CONTROL

A. Water sprinkling, temporary enclosures, chutes, and other suitable methods shall be used to limit dust and dirt rising and scattering in the area. The Contractor shall comply with government regulations pertaining to environmental protection.

B. Water shall not be used if it creates hazardous or objectionable conditions such as ice, flooding, or pollution.

3.06 CLEANING

A. During and upon completion of Work, the Contractor shall promptly remove tools and equipment, surplus materials, rubbish, debris, and dust and shall leave areas affected by Work in a clean, approved condition.

B. Adjacent structures shall be cleaned of dust, dirt, and debris caused by demolition, rehabilitation and repair, as requested by the Engineer or directed by governing authorities, and adjacent areas shall be returned to condition existing prior to start of Work.

END OF SECTION

SECTION 03 01 00 – MAINTENANCE OF CONCRETE

PART 1 -- GENERAL

1.01 SUMMARY

A. Remove, repair, or rehabilitate concrete members and surfaces as indicated.

1. In general, Maintenance of Concrete, and related sections, applies to all interior and exterior concrete work items as part of the base bid.

a. Initial surface preparation of the exterior roof is required as part of the base bid for the application of the protective coating (waterproofing).

b. The Contractor shall mark the estimated boundaries of the bid alternate work.

c. Contractor shall consult with the Engineer and review the marked boundaries and the prepared surfaces to ensure suitability of repair method selected, and the extent of the repair required prior to the repair and rehabilitation bid alternate work occurring.

2. Surface scaling repairs on the exterior roof surface is included a bid alternate.

a. Once reviewed and approved, work may begin as outlined in the bid alternate may proceed after written confirmation from the Owner that marked quantities are acceptable.

b. Additional surface preparation may be required to prepare the surfaces for the bid alternate repair work.

B. Provide all materials and equipment necessary to accomplish the Work.

1. Some of the work required to remove, repair, or rehabilitate concrete members and surfaces will require elevated work, and work on sloped surfaces to access some of those areas.

2. This will require the contractor to select appropriate means and methods to conduct the work. Equipment selected may include scaffolding or ariel work platforms such as scissor lifts or articulating boom lifts.

3. The contractor shall be responsible for selecting the appropriate equipment and ensuring that it meets all applicable size restrictions and safety requirements. Access to reservoir interior is limited by existing hatch size with size noted on drawings.

C. Repair damage to concrete and concrete surfaces as in consultation with the Owner and the Engineer, as shown within the contract documents, or when concrete damage occurs during the demolition, repair, and rehabilitation work during construction activities within the scope and duration of the contract.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. The edition of the standards applicable to the Work shall be those editions referenced by the 2021 International Building Code (IBC). If the standard is not referenced by the IBC, referenced standard listed below, the edition of the standard applicable to the Work shall be the edition in effect on the date of signing and sealing of the contract specifications.

B. Reference Specifications

01 33 00	Submittal Procedures
03 21 00	Reinforcement Bars
03 91 13	Surface Applied Corrosion Inhibitor
07 14 00	Fluid Applied Waterproofing
07 71 29	Manufactured Roof Expansion Joint
07 92 13	Elastomeric Joint Sealant

C. Reference Standards

American Concrete Institute (ACI)	
ACI 201.1R-08	Guide for Making a Condition Survey of Concrete in Service
ACI 562-21	Assessment, Repair, and Rehabilitation of Existing Concrete Structures
ACI 546R-14	Concrete Repair Guide
ACI RAP Bulletin 4	Field Guide to Concrete Repair Application Procedures, Surface Repair Using Form and Pour Techniques
ACI RAP Bulletin 5	Field Guide to Concrete Repair Application Procedures, Surface Repair Using Form and Pump Techniques
ACI RAP Bulletin 6	Field Guide to Concrete Repair Application Procedures, Vertical and Overhead Spall Repair by Hand Application
ACI RAP Bulletin 7	Field Guide to Concrete Repair Application Procedures, Spall Repair of Horizontal Concrete Surfaces
ASTM International (ASTM)	
ASTM C109	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
ASTM C666	Standard Test Method for Testing Resistance of Concrete to Freezing and Thawing in Sodium Chloride Solution
ASTM C882 (modified)	Standard Test Method for Bond Strength of Epoxy-Resin Systems Used with Concrete by Slant Shear
NSF International (NSF)	
NSF/ANSI 61	Drinking Water System Components – Health Effects
International Concrete Repair Institute (ICRI)	
ICRI Guideline No. 03732	Selecting and Specifying Concrete Surface Preparation for. Sealers, Coatings, and Polymer Overlays

1.03 CONTRACTOR SUBMITTALS

A. Furnish submittals in accordance with the requirements of Section 01 33 00 – Submittal Procedures.

B. Shop Drawings

1. Submit Shop Drawings for products and materials used for repair activities.

2. Submit shoring plan for proposed methods of supporting existing structures, equipment, and piping during rehabilitation and repair activities.

C. Concrete Repair Products and Procedures

1. Submit a comprehensive plan for each repair method indicated within this Section, the plan shall include the following:

a. Manufacturer's literature containing instructions and recommendations on the mixing, handling, placement, curing, and appropriate uses for each product.

b. Curing products and procedures for each repair method for which curing is recommended by the manufacturer.

1.04 QUALIFICATIONS OF CONCRETE RESTORATION FIRMS

A. The concrete restoration Work shall be performed by an experienced firm customarily engaged in performing similar repair work on cast-in-place concrete structures.

B. The restoration firm shall have completed at least 3 similar projects in the last 5 years.

C. The restoration firm shall be certified by the manufacturer of the repair materials.

1.05 PRE-INSTALLATION CONFERENCE

A. Prior to scheduled commencement of the removal, repair, and rehabilitation and other associated work to correct the deteriorated features of the water storage tank, conduct a meeting at the project site with the installer, Engineer, Owner, Owner’s representative, manufacturer’s representative, inspector, and any other persons directly involved with the performance of the Work.

1. The main purpose of this meeting is to review foreseeable methods and procedures related to the Work.

2. Schedule meeting at least 2 weeks in advance.

3. Meetings for related work may be scheduled on the same day to optimize attendance. It is anticipated that all preinstallation conferences can be held in a minimum of one day and a maximum of two.

4. Manufacturer’s representative shall ensure that the Contractor is fully trained in the use of the materials specified, and the methods of installation required.

5. The Installer shall record conference discussions and include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party.

1.06 REPAIR AND REHABILITATION PRELIMINARY WORK

A. The Contractor shall mark the estimated boundaries of the work and shall review these limits with the Inspector prior to commencing work activities.

B. Contractor shall consult with the Engineer and review the prepared surfaces to ensure suitability of repair method selected, and the extent of the repair required prior to the rehabilitation and repair work occurring.

C. Once reviewed and approved, repair and rehabilitation as outlined in the contract documents, or as otherwise directed by the Engineer, shall proceed.

1.07 DAILY PROGRESS AND QUANTITY REPORTS

A. Daily progress of each type of completed repair shall be tracked and reported using bid form quantities. These quantities shall be reviewed and approved by the City's inspector daily. Once approved a record of the agreed upon quantities shall be signed by both the Contractor and the Inspector.

PART 2 -- PRODUCTS

2.01 GENERAL

A. All products and materials in contact with potable water shall be certified as being in conformance with NSF/ANSI 61.

2.02 REINFORCEMENT STEEL

A. Reinforcement Steel shall be as specified in Section 03 21 00 Reinforcement Bars.

2.03 BONDING AGENT AND ANTI-CORROSION COATING

A. Provide a cementitious epoxy resin compensated 3-component, solvent-free, coating material with corrosion inhibitor, used as bonding primer and reinforcement corrosion protection..

B. Bonding Agent and Anti-Corrosion Coating shall be:

1. Armatec 110 EpoCem, by Sika Corporation,

2. Or approved equal.

C. Performance Criteria

1. Properties of the mixed epoxy resin/portland cement adhesive.

a. Pot Life: 90 minutes @ 73° F

b. Contact Time: 95 deg F 6 hours

80-95 deg F 6 Hours

65-79 deg F 12 Hours

50-64 deg F 16 Hours

40-49 deg F wet on wet

c. Color: dark gray

2. Properties of the cured epoxy resin/portland cement adhesive.

a. Compressive Strength (ASTM C-109)

1) 3 day: 4500 psi

2) 7 day: 6500 psi

3) 28 day: 8500 psi

b. Splitting Tensile Strength (ASTM C-496)

1) 28 days: 600 psi

c. Flexural Strength (ASTM C-348)

1) 1250 psi

d. Bond Strength ASTM C-882 at 14 days

1) Wet on Wet, 0-hr. open time: 2800 psi

2) 24-hr. open time: 2600 psi

2.04 REPAIR MORTAR

A. Patching or overlay of interior vertical and overhead surfaces with a polymer-modified, portland cement mortar/concrete.

B. Repair Mortar shall be:

1. SikaTop – 111 Plus, by Sika Corporation,

2. Or approved equal

C. Performance Criteria

1. Typical Properties of the mixed polymer-modified, portland cement mortar:

a. Working Time: Approximately 30 minutes

b. Finishing Time: 50-120 minutes

c. Color: concrete gray

2. Typical Properties of the cured polymer-modified, portland cement mortar:

a. Compressive Strength (ASTM C-109 Modified)

1) 1 day: 2500 psi min.

2) 7 day: 5500 psi min.

3) 28 day: 7000 psi min.

b. Flexural Strength (ASTM C-293) @ 28 days: 1500 psi

c. Splitting Tensile Strength (ASTM C-496) @ 28 days 700 psi

d. Bond Strength (ASTM C-882 Modified) @ 28 days: 2500 psi

e. The portland cement mortar shall not produce a vapor barrier.

f. Density(wet mix): 136 lbs. / cu. ft.

g. Permeability (AASHTO T-277 @ 28 days Approximately 500 Coulombs)

2.05 SURFACE APPLIED CORROSION INHIBITOR

A. Surface Applied Corrosion Inhibitor shall be Sika FerroGard 903 by Sika Corporation, as specified in Section 03 91 13 Surface Applied Corrosion Inhibitor.

2.06 EPOXY RESIN

A. A 2-component, moisture-tolerant, low-viscosity, high-strength epoxy resin adhesive.

B. Epoxy Resin shall be:

1. Sikadur 35, Hi-Mod LV with Injection Gel, by Sika Corporation, Inc.,

2. Or approved equal.

C. Performance Criteria

1. Properties of the mixed epoxy resin adhesive used for the pressure injection grouting:

a. Pot Life: 25 minutes (60 gram mass) @ 73 deg F

b. Tack-FreeTime:

90 deg F 1.5 to 2 hours

75 deg F 3 to 3.5 hours

40 deg F 14-16 hours

c. Viscosity: Approx. 375 cps. (mixed)

d. Color: Clear, pale yellow

2. Properties of the cured epoxy resin adhesive used for pressure injection grout:

a. Compressive Strength (ASTM D-695)

3 day: 10,700 psi

7 day: 11,000 psi

28 day: 13,000 psi

Compressive Modulus, psi : .min.

7 day: 320,000 psi

b. Shear Strength (ASTM D-732)

1) 14 day: 5,100 psi

c. Flexural Strength (ASTM D-790)

1) 14 day: 14,000 psi

d. Bond Strength (ASTM C-882)

1) 14 days (moist cure)

a) Hardened Concrete to Hardened Concrete 2,900 psi

3. Properties of the mixed epoxy resin adhesive used for sealing of cracks & porting devices::

a. Pot Life: min. 30 minutes (60 gram mass) @ 73 deg F

b. Tack-FreeTime: 75 deg F 2 to 3.5 hours

c. 40 deg F 14-16 hours

d. Consistency: Smooth, Non-sag paste

e. Color: Gray

4. Properties of the cured epoxy resin adhesive used for sealing of cracks & porting devices:

a. Compressive Strength (ASTM D-695) @ 73 deg F

1) 1 day: 8,000 psi

2) 3 day: 10,000 psi

3) 28 day: 10,000 ps

b. Shear Strength (ASTM D-732)

1) 14 day: 3,700 psi

c. Flexural Strength (ASTM D-790)

1) 14 days: 6,700 ps

Tangent Modulus of Elasticity in Bending .min.

2) 14 days: 750,000 psi

d. Bond Strength ASTM C-882

14 days (moist cure) min.

1) Hardened Concrete to Hardened Concrete 2,600 psi

e. Water Absorption (ASTM D-570), 7 day

1) 24 hour immersion 0.11%

f. Tensile Properties (ASTM D-638) min.

1) 7 day Tensile Strength 4,300 psi

Elongation at Break 1.3%

2) 14 day Modulus of Elasticity 410,000 psi

2.07 FLUID FLUID APPLIED WATERPROOFING

A. Use Fluid Applied Waterproofing for roof and vertical wall cracks as defined in this specification.

B. Expanding polyurethane chemical grout shall be Sikafix HH Plus by Sika Corporation, as specified in Section 07 14 00 Fluid Applied Waterproofing.

2.08 ELASTOMERIC JOINT SEALANTS

A. Use Elastomeric Joint Sealants for Floor Slab and Sloped Slab Cracks as defined in this specification.

B. Elastomeric Joint Sealants shall be Sikaflex 2c NS EZ Mix + by Sika Corporation, including Sikagard 62 primer as specified in Section 07 92 13 Elastomeric Joint Sealants.

2.09 CONCRETE TOPPING

A. Concrete Topping for scaled roof concrete repair shall be a polymer - modified, portland cement mortar/concrete.

B. Comply with the requirements of Section 03 10 00, Article 2.04 ,Parts B and C.

2.10 PROTECTIVE COATING

A. Waterproofing

1. Provide a 2-component, polymer-modified, cementitious waterproofing and protective slurry mortar for concrete.

2. Waterproofing shall be

a. Sika Top Seal 107, by Sika Corporation,

b. Or approved equal.

3. Performance Criteria

a. Properties of the mixed polymer-modified portland cement coating:

1) Pot Life: Approx. 60 minutes at 68F

Approx. 30 minutes at 86F

2) Color: gray or white

b. Properties of the cured polymer-modified portland cement coating:

1) Tensile Strength (ASTM C-307) 28 days

Type White 870 psi

Type Gray 990 psi

2) Bond Strength (ACI 503R-30 Modified): Pull-off test

28 days 180 psi

3) Moisture Vapor permeability (ASTM E96)

28 days 18 perms

4) Compressive Strength (ASTM D-695) at 28 days

Type White 3000 psi

Type Gray 3400 psi

5) Flexibilty (ASTM D522 Modified)

Approximately 25%

6) Carbon Dioxide Diffusion

Coefficient (uCO2) Approx. 35,000 equivalent to 6 inches of concrete

7) The material shall not produce a vapor barrier.

8) The material meets the chemical requirements in accordance with ANSI/NSF Standard 61- potable water approval.

9) The material shall be thermally compatible with portland cement mortar and concrete.

2.11 MANUFACTURED ROOF EXPANSION JOINT

A. Manufactured roof expansion joint shall be Sika DSM-DS System as specified in Section 07 71 29 Manufactured Roof Expansion Joint.

PART 3 -- EXECUTION

3.01 REPAIR SEQUENCING

A. Follow the Repair and Rehabilitation Preliminary Work previously outlined.

B. Unless otherwise indicated, perform work related to Repair and Rehabilitation in the following sequence, with no activity in an area being started until previous activities in that area have been completed, including curing, cleanup, and the like:

1. Removal of equipment, miscellaneous metals, and other surface features that would interfere with the repair.

2. Roof preparation using pressure washing or other method as required by the repair product manufacturer.

3. Vertical and overhead surface preparation using chipping hammer, pressure washing or other method as required by the repair product manufacturer.

4. Demolition and repair of reinforcement steel

5. Application of bonding agent and anti-corrosion coating.

6. Spalled and delaminated concrete repair.

7. Application of surface applied corrosion inhibitor.

8. Crack repair including:

    a. Structural Cracks

        1) All cracks in beams and columns.

        2) Repair structural cracks with epoxy resin (this Section).

    b. Roof and Vertical Wall Cracks

        1) Cracks in concrete vertical walls and roofs that provide a pathway for water to migrate.

        2) Repair roof and vertical wall cracks with polyurethane chemical grout (Section 07 14 00 Fluid Applied Waterproofing).

    c. Floor Slab and Sloped Slab Cracks

        1) Cracks in concrete floor slabs and sloped slabs that provide a pathway for water to migrate.

        2) Repair Floor slab and sloped slab cracks with elastomeric joint sealant (Section 07 92 13 Elastomeric Joint Sealants).

9. Scaled concrete repair of the exterior roof (bid alternate).

    a. Perform additional roof preparation, including pressure washing or other approved methods, as required by the repair product manufacturer.

10. Application of protective coatings (waterproofing).

11. Manufactured roof expansion joint.

C. Limit the size of the repair area in order to permit the repairs to be performed together, without sacrificing the quality of the individual repairs.

3.02 GENERAL

A. Repair techniques will be reviewed during the pre-construction meeting between the Contractor, Engineer, Inspector, and Owner.

B. Apply repair materials in strict accordance with the manufacturer's printed instructions, including preparation as well as temperature and moisture requirements throughout application and curing.

C. Protect adjacent portions of the structure, including all valves, pipes, mechanical equipment, and filter media from debris generated by repair activities.

D. For portions of the structure that are not identified to be repaired, maintain in their original condition.

3.03 STRUCTURAL STABILITY

A. Use caution not to weaken the structural capacity of a beam, column, wall, slab, walkway, or other concrete member during concrete removal.

B. For severely deteriorated concrete members, consult with the Engineer before removing a major portion of any structural member.

C. Shoring may be required in order to support the structure and to protect workers.

3.04 SHORING

A. Provide shoring below prior to the start of localized repairs, including surface preparation and concrete removal.

B. Shoring shall adequately distribute the load in such a manner as to avoid damage to the structure.

C. Maintain the shoring in place until all localized repairs are completed and structurally repaired areas have achieved 70% of their design strengths.

3.05 OFF-SITE DISPOSAL

A. Provide off-site disposal of debris generated as a result of repair procedures.

3.06 REPAIR PROCEDURES, GENERAL

1. Removal of equipment, miscellaneous metals, and other surface features that would interfere with the repair.

    a. Identify all equipment, appurtenances, conduits, pipes, anchors, brackets, embedded metals, and electrical components within repair areas.

    b. Coordinate with Owner for disconnection steps, temporary support, relocation, and protection means.

3.07 ROOF PREPARATION

A. Protective coating (waterproofing).

1. Substrate must be clean, sound, and free of surface contaminants. Remove dust, laitance, grease, oils, curing compounds, form release agents and all foreign particles by mechanical means. An open-textured, sandpaper-like substrate is ideal. Substrate shall be in accordance with ICRI Guideline No. 03732 for coatings and fall within Concrete Surface Profile No. 4 (CSP4). All surfaces must be saturated surface dry (SSD), with no standing water at time of application.

3.08 SPALLED AND DELAMINATED CONCRETE REPAIR

A. Surface Preparation

1. Concrete surfaces must be clean and sound. Remove all deteriorated concrete, dirt, dust, oil, grease, contaminants and other bond-inhibiting materials from the area to be repaired.

2. Be sure the repair area is not less than 1/2 inch (12 mm) in depth for placement of a Neat mix. Be sure the repair area is not less than 1 inch (25 mm) in depth for placement of an Extended mix.

3. Preparation work should be done by high pressure water blasting, scabbling, or other appropriate mechanical means. Obtain an exposed aggregate surface with a minimum surface profile of ±1/8 inch (3 mm) [ICRI CSP-6 to CSP-7] on clean, sound concrete.

4. To ensure optimum repair results, the effectiveness of decontamination and substrate preparation can be assessed by a Pull-Off test (i.e. a Tensile Adhesion test per ASTM C 1583).

5. Saw cutting the perimeter edges (framing) of the repair area is required,

6. Substrate should be saturated surface dry (SSD) with clean water prior to application. No standing water should remain during application.

B. Framing

1. Where required, sawcut preliminary boundaries to a depth of at least 1/2-in up to 1-in deep.

2. Perform sawcuts at a dove tail angle.

3. Construct sawcuts in maximum ¼-in increments.

4. After each incremental cut, inspect the cut surface in order to ensure that the existing reinforcement has not been cut.

5. If at any depth the reinforcement becomes exposed, terminate the sawcut and notify the Engineer.

C. Reinforcement

1. Remove concrete from around reinforcement when the rebar is rusted, more than half the rebar perimeter is already exposed, the concrete bond around the rebar is broken, or if the concrete is unsound or honey-combed.

2. Reinforcing Steel Should be thoroughly prepared by mechanical cleaning to remove all traces of rust and scale. Where corrosion has occurred, the steel should be high-pressure washed with clean water after mechanical cleaning. Apply bonding agent and anti-corrosion coating.

3. Consult with the Engineer before adding or replacing rebar. Adding or replacing rebar shall be done in accordance with Section 03 21 00 Reinforcement Bars.

D. Repairing Surface Defects

1. Clean the concrete surface after removing unsound concrete, repairing cracks, and cleaning the reinforcement.

2. Ensure that the concrete surface and reinforcement are free of form-release agents, curing compounds, surface hardeners, oils, grease, chemicals, and other contaminants.

3. Remove dust, including new dust generated by surface preparation or scarifying.

4. Prior to application of the bonding agent, apply anti-corrosion coating to exposed rebar in accordance with the manufacturer's recommendations, allow the coating to dry, reapply the coating, and allow to dry again.

5. Prior to applying the repair mortar, apply bonding agent in accordance with the manufacturer's recommendations.

E. Repair Mortar

1. Apply repair mortar in accordance with the manufacturer's recommendations.

2. The thickness of each lift of repair mortar shall be in accordance with the manufacturer's recommendations, with the minimum thickness being not less than ¼-in.

3. Fully consolidate the repair mortar, working the material into the substrate to completely fill all pores and voids in the area to be filled.

4. Bring the repair surface into alignment with the adjacent existing surfaces in order to provide a uniform, even surface, or to provide 2-in minimum cover as needed. If surface cannot be uniform, provide a smooth transition between surfaces.

5. Float-finish the repaired surface using wood or sponge floats.

6. For repaired surfaces to receive a protective coating, brush-finish the surface in order to produce a roughened substrate for the coating.

7. Minimum and maximum ambient and surface temperatures shall be as recommended by repair material manufacturer.

8. Curing

    a. Provide curing according to manufactures' recommendations.

    b. If the repair mortar is not to receive waterproofing, provide curing for a minimum cure period of 7 days.

    c. During cold weather, maintain the repair material temperature above 50 deg F for at least 3 days after placement.

3.09 DEMOLITION AND REPAIR OF REINFORCEMENT STEEL.

A. Demolition and repair of reinforcement steel shall be as specified in Section 03 21 00 Reinforcement Bars.

3.10 APPLICATION OF BONDING AGENT AND ANTI-CORROSION COATING.

A. Mixing and Application

1. Mixing the epoxy resin: Shake contents of Components “A” and Component “B”. Completely empty both components into a clean, dry mixing pail. Mix thoroughly for 30 seconds using a jiffy paddle with a lowspeed (400-600 rpm) drill. Slowly add the entire contents of Component “C” while continuing to mix for 3 minutes until uniform with no lumps. Mix only that quantity that can be applied within its pot life.

2. Placement procedure:

a. Apply to prepared steel surface with a stiff-bristle brush, or “hopper type” spray equipment at 20 mils minimum thickness. Properly coat the underside of the totally exposed steel. Allow to dry (approx. 2 - 3 hours) then apply a second coat at 20 mils minimum thickness. Allow drying again before placing repair mortar.

3. Adhere to all limitations and cautions for the epoxy resin/portland cement adhesive in the manufacturers current printed literature.

B. Cleaning

1. The uncured epoxy resin/portland cement adhesive can be cleaned from tools with water. The cured epoxy resin/portland cement adhesive can only be removed mechanically.

2. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

3.11 APPLICATION OF SURFACE APPLIED CORROSION INHIBITOR.

A. Application shall as specified in Section 03 91 13 Surface Applied Corrosion Inhibitor.

3.12 CRACK REPAIR

A. Structural Cracks

1. Efflorescence

a. Prior to the crack repair, clean efflorescence from the cracks and the surrounding area.

b. Clean the efflorescence by light pressure washing or scrubbing.

2. Perform structural crack repairs by pressure injection in accordance with the manufacturer’s directions, and in accordance with the following basic procedure:

a. Mixing and Application

1) Mixing the epoxy resin adhesive for sealing the cracks & porting devices: Premix each component. Proportion one parts by volume of Component “A” to one part Component “B” into a clean, dry mixing pail. Mix thoroughly for 3 minutes with a jiffy paddle on a low-speed (400-600 rpm) drill or dispense from a ready to use prepackaged coaxil cartridge. Mix only that quantity of material that can be used within its potlife (25-35 minutes 73F).

b. Mixing of the epoxy resin adhesive used for the pressure injection grouting:

1) Manual: Premix each component. Proportion two parts by volume of Component “A” to one part Component “B” into a clean, dry mixing pail. Mix thoroughly for 3 minutes with a jiffy paddle on a low-speed (400-600 rpm) drill. Mix only that quantity of material that can be used within its pot life (20-30 minutes 73F).

c. Pressure Injection to be performed prior to application of protective coating to the concrete roof.

d. Placement procedure:

1) The epoxy resin adhesive for sealing the cracks & porting device: Set the porting devices as required by the equipment manufacturer. Spacing of the porting devices shall be accomplished as required to achieve the travel of the epoxy resin for the pressure injection grouting between ports and fill the cracks to the maximum. On structures open on both sides, provide porting devices on opposite sides at staggered elevations. Apply the mixed epoxy resin adhesive for sealing over cracks and around each porting device to provide an adequate seal to prevent the escape of the epoxy resin adhesive for the injection grouting. Where required by the Engineer, apply the epoxy resin adhesive for sealing in such a manner that minimal defacing or discoloration of the substrate shall result.

2) The epoxy resin adhesive for the pressure injection grouting:

a) Manual: Load the mixed epoxy resin adhesive for grouting into a disposable caulking cartridge or bulk-loading caulking gun. Inject the prepared cracks with a constant pressure in order to achieve maximum filling & penetration without the inclusion of air pockets or voids in the epoxy resin adhesive. Begin the pressure injection at the widest part of the crack being injected and continue until there is the appearance of epoxy resin adhesive at an adjacent port, thus indicating travel. When travel is indicated, the decision to discontinue or continue the pressure injection from that port should be made by the contractor based on his experience, with the approval of the Engineer. Continue procedure until pressure injectable cracks has been filled.

b) Automated: Dispense the epoxy resin adhesive for grouting under constant pressure in accordance with procedures recommended by the equipment manufacturer as required to achieve maximum filling and penetration of the prepared cracks without the inclusion of air pockets or voids in the epoxy resin adhesive. The pressure injection of single or multiple ports, by use of a manifold system, is possible. This decision should be made by the Contractor, with the approval of the Engineer. Continue the approved procedure until all pressure injectable cracks have been filled.

e. If penetration of any cracks is impossible, consult the Engineer before discontinuing the injection procedure. If modification of the proposed procedure is required to fill the cracks, submit said modification in writing to the Engineer for acceptance prior to proceeding.

f. Adhere to all limitations and cautions for the epoxy resin adhesive in the manufacturers current printed literature.

3. Cleaning

a. After the epoxy resin adhesive for grouting has cured, the epoxy resin adhesive for sealing cracks and porting devices shall be removed as required by the Engineer. Clean the substrate in a manner to produce a finish appearance acceptable to the owner.

b. The uncured epoxy resin adhesive can be cleaned from tools with approved solvent. The cured epoxy resin adhesive can only be removed mechanically.

c. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

B. Roof and Vertical Wall Cracks

1. Roof and Vertical Wall Cracks shall be repaired as specified in Section 07 14 00 Fluid Applied Waterproofing.

C. Floor Slab and Sloped Slab Cracks

1. Floor Slab and Sloped Slab Crack shall be repaired as specified in Section 07 92 13 Elastomeric Joint Sealants

2. Concrete topping for scaled concrete repair (bid alternate).

a. Proceed with bid alternate work only after receiving written approval.

b. Boundaries

1) Follow the Repair and Rehabilitation Preliminary Work and mark preliminary boundaries.

2) Avoid excessive or complex edge conditions.

3.13 ADDITIONAL SURFACE PREPARATION FOR SCALED CONCRETE REPAIR

A. Comply with Section 03 10 00, Article 3.06, Parts 3.a through 3.e.

3.14 APPLICATION OF PROTECTIVE COATINGS (WATERPROOFING).

A. Mixing and Application

1. Mixing: Under normal circumstances, full quantities of both components are mixed together, a slurry consistency will result. For a trowelable consistency use only 90% of component A. Mix in a clean container by slowly adding the powder component to the liquid component and mixing with a slow speed (400-600rpm) drill and mixing paddle.

2. Coating Application: Apply trowel, notched trowel, stiff bristle brush, or spray equipment. Work material into the prepared substrates, filling all pores and voids.For brush grade: Apply first coat, with horizontal brush strokes and leave to harden (4 to 8 hours). Apply second coat with vertical brush stokes.

3. For trowel consistency: Apply the first coat with a notched trowel and leave to harden (4 to 8 hours). Apply the second coat with a flat trowel.

4. For spray application: Use a hopper gun spray equipment, textured sprayer (e.g. Texspray E110c by Graco), or a rotor/stator pump equipment. Allow the first coat to harden (4 to 8 hours) prior to the application of the second coat. As soon as the mortar layer starts to set, a uniform surface with a fine sponge or a plastic trowel.

5. When applying the coating, never stop the application until the entire surface has been coated. Always stop application at an edge, corner, or joint. Never let a previously coated film dry; always coat into a wet film. Always apply the coating at a 45^{o} angle to an edge, corner, or joint.

6. Adhere to all limitations and cautions for the polymer-modified cement coating in the manufacturer's printed literature.

B. Cleaning

1. The uncured polmer-modified portland cement coating can be cleaned from tools with water. The cured polymer-modified portland cement coating coating can only be r removed mechanically.

2. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

C. Manufactured roof expansion joint.

a. Installation shall be as specified in Section 07 71 29 Manufactured Roof Expansion Joint.

END OF SECTION

SECTION 03 21 00 – REINFORCEMENT BARS

PART 1 -- GENERAL

1.01 SUMMARY

A. Provide reinforcement steel and appurtenant Work, complete and in place, in accordance with the Contract Documents.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Reference Specifications

01 33 00	Submittal Procedures

B. Reference Standards

1. The edition of the standards applicable to the Work shall be those editions referenced by the 2021 International Building Code (IBC) If the standard is not referenced by the IBC, nor an IBC referenced standard listed below, the edition of the standard applicable to the Work shall be the edition in effect on the date of signing and sealing of the contract specifications.

American Concrete Institute (ACI)	
ACI 117	Specification for Tolerances for Concrete Construction and Materials
ACI 318	Building Code Requirements for Structural Concrete
ASTM International (ASTM)	
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A 706	Low Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A 1064	Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
American Welding Society (AWS)	
AWS D1.4	Structural Welding Code – Reinforcing Steel
NSF/ANSI 61	Drinking Water System Components – Health Effects

1.03 CONTRACTOR SUBMITTALS

A. Furnish submittals in accordance with the requirements of Section 01 33 00 – Submittal Procedures.

B. Shop Drawings

1. Furnish shop bending diagrams, placing lists, and drawings of reinforcement steel prior to fabrication.

2. Diagrams

a. The shop bending diagrams shall show the actual lengths of bars to the nearest inch, measured to the intersection of the extensions (tangents for bars of circular cross section) of the outside surface.

b. Include bar placement diagrams that clearly indicate the dimensions of each bar splice.

3. Reinforcement

a. Details of the concrete reinforcement steel and concrete inserts shall be submitted at the earliest possible date after receipt by the Contractor of the Notice to Proceed.

b. Said details of reinforcement steel for fabrication and erection shall conform to the CRSI Manual of Standard Practice, and the indicated requirements.

c. Mill certificates, including reinforcing steel yield and tensile strength test data.

4. Welding

a. If existing reinforcing to new replacement reinforcing is to be spliced by welding at any location, submit mill test reports containing the information necessary for determination of the carbon equivalent per AWS D1.4.

b. Submit a written welding procedure for each type of weld for each size of bar which is to be spliced by welding; merely a statement that AWS procedures will be followed is not acceptable.

c. If reinforcement steel is spliced by welding at any location, submit certifications of procedure qualifications for each welding procedure and certification of welder qualifications, for each welding procedure and for each welder performing on the Work.

1.04 QUALITY ASSURANCE

A. Welding

1. Materials Testing

a. Welding of existing reinforcing steel to new reinforcing steel shall comply with the requirements of the American Welding Society (AWS) D1.4/D1.4M, Structural Welding Code—Reinforcing Steel. Prior to any welding, the Contractor shall obtain sound, representative samples of the existing reinforcing steel and submit them to a qualified metallurgical testing laboratory for determination of chemical composition, carbon equivalent (CE), and mechanical properties. Welding shall not begin until test results have been reviewed and accepted by the Engineer.

b. If testing indicates that the existing reinforcing steel is not weldable or requires special procedures, the Contractor shall immediately stop work and notify the Engineer for direction.

c. The costs of testing will be paid by the Owner.

2. Weld Procedure

    a. The Contractor shall provide a Welding Procedure Specification (WPS) and a Procedure Qualification Record (PQR) specifically developed for the combination of existing and new reinforcing steel. The WPS shall address metallurgical compatibility, preheat requirements, interpass temperature, electrode selection, and any limitations required by the verified material properties. Only low hydrogen electrodes suitable for the tested reinforcing steel shall be used.

    b. All welders performing reinforcing steel welding shall be certified in accordance with AWS D1.4 for the weld types and positions required. The Contractor shall submit welder certifications, the WPS, the PQR, and the metallurgical test reports for review prior to the start of welding.

    c. Repair welds that fail to meet AWS D1.4.

B. Once the work is identified the Contractor shall consult with the Engineer prior to the work occurring to ensure suitability of repair method selected, and the extent of the repair required. This will require the Contractor to prepare the work and the Engineer to inspect the prepared surfaces prior to the work being completed.

C. Rehabilitation and Repair Preliminary Sequencing

1. The Contractor shall mark the estimated boundaries of the work and shall review these limits with the Inspector prior to commencing work activities.

2. Remove damaged concrete and prepare the surfaces for rehabilitation and repair.

3. Contractor shall consult with the Engineer and review the prepared surfaces to ensure suitability of repair method selected, and the extent of the repair required prior to the rehabilitation and repair work occurring.

4. Once reviewed and approved, rehabilitation and repair as outlined in the contract documents, or as otherwise directed by the Engineer, shall proceed.

5. Daily Progress and Quantity Reports

    a. Daily progress of each type of repair shall be tracked and reported using bid price units. These quantities shall be reviewed and approved by the City's inspector. Once approved a record of the agreed upon quantities shall be signed by both the Contractor and the Inspector.

1.05 PRE-INSTALLATION CONFERENCE

A. Prior to scheduled commencement of the removal, repair, and rehabilitation and other associated work, to correct the deteriorated features of the water storage tank, conduct a meeting at the project site with the installer, Engineer, Owner, Owner's representative manufacturer's representative, inspector, and any other persons directly involved with the performance of the Work.

1. The main purpose of this meeting is to review foreseeable methods and procedures related to the Work.

2. Schedule meeting at least 2 weeks in advance.

3. Meetings for related work may be scheduled on the same day to optimize attendance. It is anticipated that all preinstallation conferences can be held in a minimum of one day and a maximum of two.

4. Manufacturer's representative shall ensure that the Contractor is fully trained in the use of the materials specified, and the methods of installation required.

5. The Installer shall record conference discussions and include decisions and agreements reached (or disagreements) and furnish copies of recorded discussions to each attending party.

PART 2 -- PRODUCTS

2.01 MATERIAL REQUIREMENTS

A. Materials that may remain or leave residues on or within the concrete shall be certified as compliant with NSF/ANSI 61.

2.02 REINFORCEMENT STEEL

A. Existing reinforcement steel that requires repair shall have samples removed and tested to determine suitable replacement materials and methods of connection and coupling. Where applicable the following shall apply.

1. Deformed Bar Reinforcement.

a. Deformed bar reinforcement shall conform to ASTM A615 for Grade 60 reinforcement, unless otherwise indicated.

b. Welded Reinforcement

1) Deformed bar reinforcement that is welded shall conform to ASTM A706 for Grade 60 reinforcement, unless otherwise indicated.

2) The carbon equivalent in reinforcing that is welded shall not exceed 0.55 percent.

2.03 WELDED SPLICES

A. Welded splices shall be provided where indicated and where approved by the Engineer.

B. Materials as required to conform the welded splices to AWS D1.4 shall be provided.

PART 3 -- EXECUTION

3.01 GENERAL

A. Reinforcement steel, welded wire fabric, couplers, and other appurtenances shall be fabricated, and placed in accordance with the Building Code and the indicated supplementary requirements.

3.02 FABRICATION

A. General

1. Reinforcement steel shall be accurately formed to the dimensions and shapes required for the repair.

2. Where new reinforcing is required to be welded to existing reinforcing and the existing bar diameter is not available, provide the next larger nominal bar size. Downsizing is not permitted.

3. Bars shall be bent cold.

4. Bars shall be bent in accordance with the requirements of ACI 318.

5. Fabricate reinforcement bars for structures in accordance with accepted bending diagrams, placing lists, and placing drawings.

B. Fabricating Tolerances

1. Bars used for concrete reinforcement shall conform to the following fabricating tolerances:

a. Sheared Length: plus and minus 1-in

b. Depth of Truss Bars: plus zero, minus ½-in

c. Stirrups, Ties and Spirals: plus and minus ½-in

d. Other Bends: plus and minus 1-in

3.03 PLACEMENT

A. Reinforcement steel shall be accurately positioned as indicated and shall be supported and wired together to prevent displacement using annealed iron wire ties or suitable clips at intersections.

B. Reinforcement steel shall be supported by concrete, plastic or metal support spacers, or metal hangers that are sufficiently strong and rigid to prevent any displacement of the reinforcement steel.

3.04 SPLICING

A. General

1. Reinforcement bar splices shall only be used as indicated or approved locations.

2. When it is necessary to splice reinforcement at points other than where indicated, the character of the splice shall be as reviewed and accepted by the Engineer.

3. Unless otherwise indicated, dowels shall match the size and spacing of the spliced bar.

B. Bending or Straightening

1. Reinforcement shall not be straightened or re-bent in a manner which will injure the material.

2. Bars shall be bent or straight as indicated.

3. Bars shall be bent cold, unless otherwise permitted by the Engineer.

4. No bars partially embedded in concrete shall be field-bent except as indicated or specifically permitted by the Engineer.

3.05 CLEANING AND PROTECTION

A. Reinforcement steel shall always be protected from conditions conducive to corrosion until concrete has been placed around it.

B. The surfaces of reinforcement steel and other metalwork to be in contact with concrete shall be thoroughly cleaned of dirt, grease, loose scale and rust, grout, mortar, and other foreign substances immediately before the concrete is placed.

C. Where there is delay in depositing concrete, the reinforcement shall be re-inspected and, if necessary, re-cleaned.

END OF SECTION

SECTION 03 91 13 – SURFACE APPLIED CORROSION INHIBITOR

PART 1 -- GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Provide a Surface Applied Corrosion Inhibitor on concrete in order to reduce the effects of corrosion.

1. Work includes substrate preparation as outlined in Section 03 01 00 Maintenance of Concrete.

2. Where applicable, crack repair shall be completed prior to work to repair surface defects and in accordance with the approved repair sequence.

1.03 PERFORMANCE REQUIREMENTS

A. The Surface Applied Corrosion Inhibitor is intended to mitigate active corrosion, and/or delay the onset of corrosion.

1. System shall perform as a corrosion inhibitor.

2. Manufacturer shall provide all Surface Applied Corrosion Inhibitor materials that are physically and chemically compatible when installed in accordance with manufacturer’s current application requirements.

1.04 SUBMITTALS

A. Submittals: Comply with project requirements for submittals as specified in Division 01.

B. Product Data:

1. Materials list of items proposed to be provided under this Section.

2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.

1.05 QUALITY ASSURANCE

A. Installer Qualifications:

1. Installer shall have completed at least 3 similar projects in the last 5 years.

2. Installer shall designate a single individual as project foreman who shall be on site at all times during installation.

B. Applicable Regulations: Comply with local code and requirements of authorities having jurisdiction. Do not exceed VOC regulations as established by the State in which they are being installed; including total VOC content, in grams per liter, for all system components (i.e. primers, adhesives, coatings, and similar items.)

C. Rehabilitation and Repair Preliminary Sequencing

1. The Contractor shall mark the estimated boundaries of the work and shall review these limits with the Inspector prior to commencing work activities.

2. Remove damaged concrete and prepare the surfaces for rehabilitation and repair.

3. Contractor shall consult with the Engineer and review the prepared surfaces to ensure suitability of repair method selected, and the extent of the repair required prior to the rehabilitation and repair work occurring.

4. Once reviewed and approved, rehabilitation and repair as outlined in the contract documents, or as otherwise directed by the Engineer, shall proceed.

5. Daily Progress and Quantity Reports

a. Daily progress of each type of repair shall be tracked and reported using bid price units. These quantities shall be reviewed and approved by the City's inspector. Once approved a record of the agreed upon quantities shall be signed by both the Contractor and the Inspector.

1.06 PRE-INSTALLATION CONFERENCE

A. Prior to scheduled commencement of the removal, repair, and rehabilitation and other associated work to correct the deteriorated features of the water storage tank, conduct a meeting at the project site with the installer, Engineer, Owner, Owner's representative manufacturer's representative, inspector, and any other persons directly involved with the performance of the Work.

1. The main purpose of this meeting is to review foreseeable methods and procedures related to the Work.

2. Schedule meeting at least 2 weeks in advance.

3. Meetings for related work may be scheduled on the same day to optimize attendance. It is anticipated that all preinstallation conferences can be held in a minimum of one day and a maximum of two.

4. Manufacturer's representative shall ensure that the Contractor is fully trained in the use of the materials specified, and the methods of installation required.

5. The Installer shall record conference discussions and include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party.

1.07 DELIVERY, STORAGE AND HANDLING

A. SURFACE APPLIED CORROSION INHIBITOR materials must be delivered in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged material must be removed from the site immediately.

B. Store SURFACE APPLIED CORROSION INHIBITOR materials off the ground and protect from rain, freezing or excessive heat until ready for use.

C. Condition the specified product as recommended by the manufacturer.

1.08 PROJECT CONDITIONS

A. Environmental Conditions: Do not apply material if it is raining or snowing or if such conditions appear to be imminent. Minimum application temperature is 40 degrees F (5 degrees C) and rising.

B. Protection: Precautions should be taken to avoid damage to any surfaces near the work zone due to mixing and handling of the specified material.

1.09 WARRANTY

A. Warranty: Provide manufacturer’s standard warranty for each type of product. Warranty shall include manufacturer’s statement that materials in contact with another have been tested and verified to be compatible.

PART 2 -- PRODUCTS

2.01 PRODUCT

A. Sika FerroGard 903 by Sika Corporation,

B. Or Equal.

2.02 PROPERTIES

A. Organic and inorganic in nature and environmentally safe.

B. Water based.

C. Shall not contain calcium nitrite.

D. Shall not form a vapor barrier.

E. Shall be a mixed inhibitor.

F. The material shall have ANSI 61 potable water listing.

G. Viscosity (Brookfield Viscometer, Spindle #1, Speed 100) 15 cps.

H. Color: Pale Yellow

I. Density: 1.13 (9.4 lbs./ gal.)

J. PH: 11 (+/-1)

PART 3 -- EXECUTION

3.01 EXAMINATION

A. Verify that surfaces and conditions are ready to accept the Work of this section. Verify surfaces are clean, dry, sound and free of voids, deformations, protrusions and contaminants that may inhibit application or performance of the elastomeric coatings Notify Engineer in writing of any discrepancies. Commencement of the Work in an area shall mean Installer's acceptance of the substrate.

3.02 PREPARATION

A. Verify that the surfaces are clean and open texture.

B. Substrates must be clean, sound, dry, and absorbent free of surface contaminants or other contaminants deleterious to the penetration of the Surface Applied Corrosion Inhibitor. Remove dust, laitance, and grease, oils, curing compounds, form release agents existing coatings and all foreign particles by mechanical means. Substrate shall be in accordance with ICRI Guideline No. 03732 for sealers and fall within CSP1 to CSP3.

3.03 APPLICATION OF CONCRETE REPAIR AND PATCHING MATERIALS

A. Fill all visible hairline cracks and surface defects with appropriate Sika repair mortar, leveling mortar or surface filler prior to applying coating primer. Bugholes or irregularities of substrate shall be leveled with specified leveling mortar or surface fillers as appropriate.

3.04 CRACK TREATMENT FOR CONCRETE

A. For non-structural cracks, 12 mils or less apply the Surface Applied Corrosion Inhibitor in accordance with the Product Data Sheet.

B. For non-structural cracks greater than 12 mils rout and seal the crack to a 1/4 inch by 1/4 inch profile and properly seal with a flexible, specified elastomeric joint sealant.

C. For structural static cracks, inject with a suitable epoxy.

3.05 APPLICATION OF SURFACE APPLIED CORROSION INHIBITOR

A. The Surface Applied Corrosion Inhibitor is delivered ready to be used. No mixing is required and do not dilute on site.

B. Coverage is entirely dependent on the porosity of the substrate. Normally the consumption is achieved with 2 coats. Extremely porous substrates may only require 1 coat, very dense substrates may require 3 coats. To ensure proper penetration, a field mock up is recommended.

C. Placement Procedure: The Surface Applied Corrosion Inhibitor shall be applied liberally and allowed to soak into the substrate. This shall be accomplished by the use of brushes, rollers, low pressure gun or airless spray equipment.

D. On vertical surfaces, apply the product from the top down in successive passes until the targeted consumption for the first coat is achieved.

E. Successive passes are done when the concrete surface still has a matt appearance from the product, but is no longer wet (e.g. when placing the bare hand on the surface and removing it, no wetness on the hand is observed). The concrete surface is assumed to be saturated with the SURFACE APPLIED CORROSION INHIBITOR when it remains “wet” in appearance for at least 5 seconds.

F. The following coat can then be applied when the concrete is completely dry.

G. On horizontal surfaces, saturate the substrate by continuous spray (airless or low pressure gun) or flooding technique and allow to have “wet” look for at least 5 seconds.

H. On soffit areas, apply the material with a continuous spray and saturate the substrate until surface keeps its “wet” look for at least 5 seconds.

I. Adhere to all limitations and cautions for the SURFACE APPLIED CORROSION INHIBITOR product as stated in the manufacturers printed literature.

3.06 FIELD QUALITY CONTROL

A. Notify Engineer when sections of work are complete.

B. Cooperate with Owner’s inspection agency as applicable, who will observe substrate and coating installation and provide written documentation of observations.

3.07 CLEANING

A. Remove uncured materials from tools or other surfaces with an approved solvent.

B. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

END OF SECTION

SECTION 05 05 19 – POST-INSTALLED CONCRETE ANCHORS

PART 1 -- GENERAL

1.01 SUMMARY

A. Provide post-installed anchors and appurtenances, complete and in place, as indicated in accordance with the Contract documents.

B. Unless otherwise indicated, drilled concrete anchors shall be adhesive anchors.

C. Section Includes:

1. Adhesive anchors

1.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

A. Definitions

1. Adhesive anchor: a post-installed anchor that is embedded into a structural concrete element and transfers load to the concrete element through a chemical bonding agent.

B. Reference Specifications

01 33 00	Submittal Procedures
03 01 00	Maintenance of Concrete
03 21 00	Reinforcement Bars
05 50 00	Metal Fabrications

C. Reference Standards

1. The edition of the standards applicable to the Work shall be the edition referenced by the 2021 International Building Code (IBC If the standard is not referenced by the IBC, nor an IBC referenced standard listed below, the edition of the standard applicable to the Work shall be the edition in effect on the date of signing and sealing of the contract specifications.

American Concrete Institute (ACI)	
ACI 318	Building Code Requirements for Structural Concrete and Commentary
ACI 350	Code Requirements for Environmental Engineering Concrete Structures and Commentary
ACI 355.2	Qualification of Post Installed Mechanical Anchors in Concrete and Commentary
ACI 355.4	Qualification for Post-Installed Adhesive Anchors in Concrete and Commentary
American Society of Civil Engineers (ASCE)	
ASCE 7	ASCE/SEI 7 - Minimum Design Loads for Buildings and Other Structures

ASCE 41	ASCE/SEI 41 - Seismic Evaluation and Retrofit of Existing Buildings
International Code Council (ICC)	
IBC	International Building Code
ICC ES AC193	Mechanical Anchors in Concrete Elements
ICC ES AC308	Post Installed Adhesive Anchors in Concrete Elements
NSF International (NSF)	
NSF/ANSI 61	Drinking Water System Components - Health Effects

1.03 SUBMITTALS

A. Furnish submittals in accordance with Section 01 33 00 – Submittal Procedures.

B. Submit the following:

1. Product data and technical information

2. Safety Data Sheets (SDS) for adhesives

3. Manufacturer’s literature containing installation instructions and appropriate uses for each type of post-installed anchor and location of use

4. Current International Code Council Evaluation Service (ICC-ES) or International Association of Plumbing and Mechanical Officials Uniform Evaluation Service (IAPMO-UES) Evaluation Reports

5. Certification for each installer demonstrating that they have been qualified in accordance with the Quality Assurance requirements below

1.04 QUALITY ASSURANCE

A. Before installing adhesive anchors in the Work, anchor installers shall be trained and qualified at the Site by the manufacturer's representative. Training and qualification for each installer shall include at least:

1. Hole drilling procedure, hole preparation and cleaning techniques, adhesive injection technique and dispenser training/maintenance, rebar dowel preparation and installation, and proof loading if required.

2. Each installer shall be re-qualified every 6 months for the duration of the project by the same qualifying procedure.

B. Before installing mechanical anchors in the Work, anchor installers shall be trained and qualified at the Site by the manufacturer's representative. Training and qualification for each installer shall include at least:

1. Hole drilling procedure, hole preparation and cleaning techniques, and torquing.

2. Each installer shall be re-qualified every 6 months for the duration of the project by the same qualifying procedure.

C. Defective anchors noted by the Special Inspector shall be replaced and re-installed by the Contractor without any additional compensation.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to job site in manufacturer's or distributor's packaging undamaged, complete with installation instructions.

B. Protect and handle materials in accordance with manufacturer's recommendations to prevent damage or deterioration.

C. Anchoring adhesives shall be stored at temperatures prescribed by the manufacturer and must not be used beyond the expiration date.

1.06 SITE CONDITIONS

A. Post-installed anchors shall be installed in concrete having a minimum age of 21 days at time of anchor installation.

B. The anchor or fastener coating, plating, or steel type must provide suitable corrosion resistance for the environment in which the anchor or fastener is installed. Anchors, nuts, and washers in the locations listed below shall be fabricated from type 304 stainless steel:

1. submerged locations

2. inside hydraulic structures below the top of the structure

3. locations indicated or designated by the Engineer to be provided with stainless steel anchors.

PART 2 -- PRODUCTS

2.01 ADHESIVE ANCHORS

A. Adhesive anchors for concrete shall be:

1. SET-3G by Simpson Strong-Tie.

2. Or approved Equal.

B. General

1. The adhesive anchor system shall consist of: 1) adhesive product; and 2) threaded rod or reinforcing bar insert. The complete system shall be compatible as required by the adhesive manufacturer.

2. Adhesives shall be injectable, two-component, cartridge-type systems dispensed and mixed through a static mixing nozzle supplied by the manufacturer.

3. The evaluation report issued by ICC-ES or IAPMO-UES shall state the acceptability of the adhesive anchor for the intended purpose and location.

4. Adhesive anchors shall be permitted when regular ambient temperatures are consistent with manufacturer's recommendation for long and short term temperatures.

5. Adhesive anchors shall not be used where anchors are subject to vibration or fire.

6. Adhesive anchors shall not be used in overhead applications, unless specifically called out on the construction documents.

7. Where required, adhesive shall be capable of being used in submerged applications once cured.

8. Adhesive shall have a current NSF/ANSI 61 listing

C. Adhesive Anchors in Concrete

1. Threaded rod inserts shall meet the requirements of Section 05 50 00 - Metal Fabrications.

2. Adhesive for use in concrete adhesive anchors shall be certified for use in resisting seismic loads in cracked concrete applications in accordance with ICC-ES AC308.

3. Where not detailed on the drawings, adhesive anchors shall be designed in accordance with ACI 318 as amended by the specific design provisions of ICC-ES AC308.

4. Adhesive anchors shall have an evaluation report issued by ICC-ES or IAPMO-UES and have been tested and qualified for performance in cracked and uncracked concrete in accordance with ICC-ES AC308 and ACI 355.4. Adhesive anchors to be used for structures, nonbuilding structures and/or nonstructural components assigned to Seismic Design Categories C through F shall have been tested and qualified for earthquake loading performance in cracked and uncracked concrete in accordance with ICC-ES AC308 and ACI 355.4.

PART 3 -- EXECUTION

3.01 INSTALLATION REQUIREMENTS

A. Post-installed anchors shall be installed in strict accordance with the manufacturer's instructions, the ICC-ES or IAPMO-UES report, and project specific design requirements indicated on the Contract Documents or in the design calculations provided by the Contractor.

B. Where holes are drilled in concrete, holes shall be accurately drilled and aligned, and the holes shall be cleaned in accordance with the manufacturer's recommendations.

C. Acceptable installation and performance temperature ranges shall be verified with manufacturer's literature prior to installation. Minimum substrate temperatures shall be maintained during the full curing period as required by the manufacturer.

D. Adhesive anchors shall not be loaded until the adhesive has reached its indicated strength in accordance with the manufacturer's instructions.

E. The Contractor shall locate existing items and identify the position of reinforcing steel and other embedded items prior to drilling holes. Care shall be exercised in drilling to avoid damaging existing reinforcing or embedded items. The location of drilled holes shall be adjusted to avoid drilling through or cutting any existing reinforcing bars or embedded items. Notify the Engineer if reinforcing steel or other embedded items are encountered during drilling. Take precautions as necessary to avoid damaging prestressing tendons, electrical and communications conduit, and piping.

F. Bending of and welding to post installed anchors is not allowed.

G. Identification of reinforcing steel and/or embedded items, relocation of drilled holes and adjustments or modifications to anchored or fastened items shall be considered part of the Work and shall be provided at no additional cost to the Owner.

H. All abandoned drilled holes shall be repaired in accordance with Section 03 01 00 – Maintenance of Concrete at no additional cost to the Owner.

END OF SECTION

SECTION 05 50 00 – METAL FABRICATIONS

PART 1 -- GENERAL

1.01 SUMMARY

A. Provide miscellaneous metalwork and appurtenances, complete and in place, as indicated in accordance with the Contract Documents.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Referenced Specifications

01 33 00	Submittal Procedures

B. References herein to "Building Code" shall mean the 2021 International Building Code (IBC). The edition of the standards applicable to the Work shall be those editions referenced by the IBC. If the standard is not referenced by the IBC, nor an IBC - referenced standard listed below, the edition of the standard applicable to the Work shall be the edition in effect on the date of award of this contract.

American Association of State Highway and Transportation Officials (AASHTO)	
AASHTO	LRFD Bridge Design Specifications
American Institute of Steel Construction (AISC)	
AISC	Steel Construction Manual
AISC	Detailing for Steel Construction
American Iron and Steel Institute (AISI)	
AISI S100	North American Specification for the Design of Cold - Formed Steel Structural Members
ASTM International (ASTM)	
ASTM A193	Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications
ASTM A194	Standard Specification for Carbon Steel, Alloy Steel, and Stainless Steel Nuts for Bolts for High Pressure or High Temperature Service
American Welding Society (AWS)	
AWS B1.5	Standard for the Qualification of Welding Inspectors
AWS D1.6	Structural Welding Code – Stainless Steel
AWS D1.8	Structural Welding Code-Seismic Supplement
AWS QC1	Qualification and Certification of Welding Inspectors
International Code Council (ICC)	
IBC	2021 International Building Code

1.03 CONTRACTOR SUBMITTALS

A. Furnish submittals in accordance with the requirements of Section 01 33 00 – Submittal Procedures.

B. Shop Drawings

1. Shop Drawings shall include, material confirmation, anchor bolt layouts, schedules for fabrication procedures.

C. Anchor Submittals

1. For post installed anchors in concrete, refer to Section 05 05 19– Post Installed Concrete Anchors.

1.04 QUALIFICATIONS OF FABRICATOR

A. The Work shall be performed by an experienced firm customarily engaged in performing similar fabrication work.

B. The firm shall have completed at least 3 similar projects in the last 5 years.

1.05 PRE-INSTALLATION CONFERENCE

A. Prior to scheduled commencement of the removal, repair, and rehabilitation and other associated work to correct the deteriorated features of the water storage tank, conduct a meeting at the project site with the installer, Engineer, Owner, Owner's representative manufacturer's representative, inspector, and any other persons directly involved with the performance of the Work.

1. The main purpose of this meeting is to review foreseeable methods and procedures related to the Work.

2. Schedule meeting at least 2 weeks in advance.

3. Meetings for related work may be scheduled on the same day to optimize attendance. It is anticipated that all preinstallation conferences can be held in a minimum of one day and a maximum of two.

4. Manufacturer's representative shall ensure that the Contractor is fully trained in the use of the materials specified, and the methods of installation required.

5. The Installer shall record conference discussions and include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party.

PRODUCTS

1.06 GENERAL REQUIREMENTS

A. Stainless Steel

1. Unless otherwise indicated, stainless steel metalwork and bolts shall be fabricated from Type 304 stainless steel.

1.07 STAINLESS STEEL REINFORCING PLATE

A. Plate shall be smooth on both faces.

B. Plate shall be fabricated (welded or bent) to conform to the contours of the existing concrete surface.

C. Unless indicated otherwise, the minimum plate thickness shall be as indicated on the drawings.

PART 2 -- EXECUTION

2.01 FABRICATION AND INSTALLATION REQUIREMENTS

A. Fabrication and Erection: Except as otherwise indicated, the fabrication and erection of structural steel shall conform to the requirements of the American Institute of Steel Construction "Manual of Steel Construction."

2.02 WELDING

A. Method

1. Welding shall be performed by the metal-arc method or gas-shielded arc method as described in the American Welding Society "Welding Handbook" as supplemented by other pertinent standards of the AWS.

2. The qualification of the welders shall be in accordance with the AWS Standards.

B. Quality

1. In assembly and during welding, the component parts shall be adequately clamped, supported, and restrained in order to minimize distortion and for control of dimensions.

2. Weld reinforcement shall be as indicated by the AWS Code.

3. Upon completion of welding, remove weld splatter, flux, slag, and burrs left by attachments.

4. Welds shall be repaired in order to produce a workmanlike appearance, with uniform weld contours and dimensions.

5. Sharp corners of material that is to be painted or coated shall be ground to a minimum of 1/32-in on the flat.

END OF SECTION

SECTION 07 14 00 – FLUID APPLIED WATERPROOFING

PART 1 -- GENERAL

1.01 SUMMARY

A. Section Includes:

1. This specification includes crack repair of Roof and Vertical Wall Cracks that provide a pathway for water to migrate..

2. Crack repair shall be completed prior to work to repair surface defects and in accordance with the approved repair sequence.

1.02 SUBMITTALS

A. Submit Shop Drawings, product data and samples in accordance with Section 01 33 00 - Submittal Procedures.

1.03 ACTION SUBMITTALS

A. Product Data

1. Submit manufacturer's product data including installation instructions.

2. Submit manufacturer's statement of product compatibility with substrate and adjacent materials.

B. Closeout Submittal

1. Submit warranty in accordance with Section 01 77 00 - Project Closeout.

1.04 QUALIFICATIONS OF CONCRETE RESTORATION FIRMS

A. The Work shall be performed by an experienced firm customarily engaged in performing similar repair work on cast-in-place concrete structures.

B. The firm shall have completed at least 3 similar projects in the last 5 years.

C. The firm shall be certified by the manufacturer of the repair materials.

1.05 QUALITY ASSURANCE

A. Manufacturing qualifications: The manufacturer of the specified product shall be ISO 9001:2008 certified and have in existence a recognized ongoing quality assurance program independently audited on a regular basis.

B. Contractor qualifications: Contractors shall be qualified in the field of concrete repair and protection with a successful track record of 5 years or more. Contractor shall maintain qualified personnel who have received product training by the manufacturer’s representative.

C. Install materials in accordance with all safety and weather conditions required by manufacturer or as modified by applicable rules and regulations of local, state and federal authorities having jurisdiction. Consult Material Safety Data Sheets for complete handling recommendations.

D. Provide products which comply with all state and local regulations controlling use of volatile organic compounds (VOCs).

1.06 REPAIR AND REHABILITATION PRELIMINARY WORK

A. The Contractor shall mark the estimated boundaries of the work and shall review these limits with the Inspector prior to commencing work activities.

B. Contractor shall consult with the Engineer and review the prepared surfaces to ensure suitability of repair method selected, and the extent of the repair required prior to the rehabilitation and repair work occurring.

C. Once reviewed and approved, rehabilitation and repair as outlined in the contract documents, or as otherwise directed by the Engineer, shall proceed.

1.07 DAILY PROGRESS AND QUANTITY REPORTS

A. Daily progress of each type of repair shall be tracked and reported using bid price units. These quantities shall be reviewed and approved by the City's inspector. Once approved a record of the agreed upon quantities shall be signed by both the Contractor and the Inspector.

1.08 PRE-INSTALLATION CONFERENCE

A. Prior to scheduled commencement of the removal, repair, and rehabilitation and other associated work to correct the deteriorated features of the water storage tank, conduct a meeting at the project site with the installer, Engineer, Owner, Owner's representative manufacturer's representative, inspector, and any other persons directly involved with the performance of the Work.

1. The main purpose of this meeting is to review foreseeable methods and procedures related to the Work.

2. Schedule meeting at least 2 weeks in advance.

3. Meetings for related work may be scheduled on the same day to optimize attendance. It is anticipated that all preinstallation conferences can be held in a minimum of one day and a maximum of two.

4. Manufacturer's representative shall ensure that the Contractor is fully trained in the use of the materials specified, and the methods of installation required.

5. The Installer shall record conference discussions and include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party.

1.09 DELIVERY, STORAGE, AND HANDLING

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

B. Store and condition the specified product as recommended by the manufacturer..

1.10 CONDITIONS

A. Environmental Conditions: Do not apply material if it is raining or snowing or if they appear to be imminent.

B. Protection: Precautions should be taken to avoid damage to any surface near the work zone due to mixing and handling of the specified repair material. Protection

1.11 WARRANTY

A. Warranty

1. Provide a written warranty from the manufacturer against defects of materials for a period of one (1) year, beginning with date of substantial completion of the project.

PART 2 -- PRODUCTS

2.01 EXPANDING POLYURETHANE CHEMICAL GROUT

A. The grouting compound shall be a non- toxic, non-flammable, high flash point (325 F) hydrophilic polymer of the type which is applied in a crack or open joint by use of a packer. When the grout is mixed with water the material will expand up to 15 times its original volume and cure to a pale yellow closed cell polyurethane foam.

B. The use of injection packers is usually required for the application of the polyurethane chemical grout.

C. Expanding polyurethane chemical grout shall be**:**

1. SikaFix HH plus, by Sika Corporation,

2. SealBoss 1510, by SealBoss Concrete Solutions

3. Or approved equal

2.02 PERFORMANCE CRITERIA

A. Properties of the mixed polyurethane chemical grout

1. Pot Life: approximately 5 hours, providing no moisture enters the system

2. Mixed Viscosity: 500 - 700 cps ASTM D- 2196 A

3. Color: pale yellow

4. Flash point : 325 F

5. Density: 8.7 – 9.2 lbs./gal. ASTM D 3754- 95

6. Solids: 100%

7. Corrosiveness: Non- corrosive

B. Properties of the cured polyurethane chemical grout

1. Tensile Strength:

a. Elongation: 89 psi ASTM D-190-63 35%

2. Absorption: 12% After 6 months immersion

3. Shrinkage: Less than 4% ASTM D-1042

4. Density: 8.75 – 9.17 lbs./gal ASTM D3574

PART 3 -- EXECUTION

3.01 SURFACE PREPARATION

A. In order to identify active leak locations and perform leak stopping repairs from the ceiling side (interior surface) of the concrete roof, the contractor shall apply water to the exterior surface. Water application may be completed using hoses, sprinklers, or by adding temporary water retaining features such as sandbags, or other approved investigative method.

B. Expanding polyurethane chemical grout - When crack (s) is contaminated on the outside it will be necessary to clean the crack surface to exactly locate the crack. If the crack encounter high water flow, it will be necessary to seal the surface of the crack with a surface sealing material. The surface sealing can be done before or after drilling the injection holes. Then, begin drilling 5/8" diameter holes along the side of the crack at 45 angles. Drill the hole to intersect the crack midway through the substrate. Install the injection packers in holes.

1. Prior to product application moisture must be present. If concrete being injected contains insufficient moisture to activate the grout:

a. Inject the crack with a small amount of water prior to the application of the chemical grout.

b. Reapply water to the exterior surface. Use of alternative methods must be approved by the manufacturer.

3.02 MIXING AND APPLICATION

A. Mixing the polyurethane chemical grout for the injection of cracks:

1. The material can be agitated vigorously shaking the 5 gallon pail or by mixing thoroughly for about 2 minutes max. with low speed (400-600 rpm), drill and paddle, bung mixer.

Caution: Do not allow water to enter this mix and avoid “whipping” air into the material.

B. Placement procedure: set packers as required by the manufacturer.

1. Begin by drilling 5/8" diameter holes along the side of the crack at a 45° degree angle. Drill the hole to intersect the crack midway through the substrate. Spacing of the injection ports depends on crack width, but normal spacing varies from 6” to 36”. It is necessary to flush the drilled holes with water to remove drill dust from the holes and cracks, and insure that the crack is wet enough to react with the grout when introduced to the crack. On structures open on both sides, provide packers on opposite sides at staggered elevations. Install the injection packers in the holes.

2. If the crack or joint to be injected is ½” or greater at surface, pack an open cell polyurethane foam saturated with the mixed polyurethane chemical grout into the crack/ joints. Spray the saturated foam with a small amount of water to activate the grout and create a surface seal.

3. Injection pressure will vary from 200 psi to 2500 psi depending on the width of the crack, thickness of the concrete and condition of the concrete.

C. Placement Procedure: The polyurethane chemical grout for the pressure injection grouting.

1. Inject the prepared cracks with a minimum of 250 psi in order to achieve maximum filling and penetration without the inclusion of air pockets or voids in the polyurethane chemical grout. Begin the pressure injection at the lowest packer and continue until there is the appearance of the polyurethane chemical grout at an adjacent packer, thus indicating travel. When travel is indicated, a decision to discontinue or continue the pressure injection from that packer should be made by the contractor, based on his experience, with the approval of the engineer. Continue the procedure until all pressure-inject able cracks have been filled.

2. Pump polyurethane chemical grout for 45 seconds and then pause to allow the material to flow into all of the cracks and crevices. Watch for material flow and water movement to appear on the surface. When movement stops, begin injection into the next packer. When sealing vertical cracks, begin injecting at the bottom of the crack and work vertically. If site temperatures are extremely low, heat bands or heated water baths may be used on the pails, before and during use to maintain the products temperature. Re-inject to assure that all voids are properly sealed off.

3. If penetration of any cracks is impossible, consult the engineer before discontinuing the injection procedure. If modification of the proposed procedure is required to fill the cracks, submit said modification in writing to the engineer for acceptance prior to proceeding.

4. Adhere to all limitations and cautions for the polyurethane chemical grout as stated in the manufacturers current printed literature.

Caution: Expanding chemical grout is exerting outward pressures of up to 230 psi. The review of drawings of the area to be repaired is desirable.

3.03 CLEANING

A. Clean-up: Completely flush pump and hoses. Use sharp sided tool such as putty knife or trowel to remove excess material from walls, floors, etc. Wait for material to cure before removing. May be sanded off if necessary.

B. The uncured polyurethane chemical grout can be cleaned from tools with an approved solvent. The cured polyurethane chemical grout can only be removed mechanically.

C. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

END OF SECTION

SECTION 07 71 29 – MANUFACTURED ROOF EXPANSION JOINT

PART 1 -- GENERAL

1.01 SUMMARY

A. Section Includes

1. Bellows-type horizontal expansion joint seal.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Where reference is made to any of the below, the revision in effect at the time of bid opening shall apply.

B. Reference Specifications

01 33 00	Submittal Procedures

C. Reference Standards

1. State Building Code
2. International Building Code (IBC)
3. American Society of Testing Materials (ASTM)
4. National Roofing Contractor's Association (NRCA)
5. National Roofing and Waterproofing Manual.

1.03 SUBMITTALS

A. Furnish submittals in accordance with Section 01 33 00 – Submittal Procedures.

B. Product Data

1. Manufacturer's product data, installation methods, and maintenance instructions.

C. Shop Drawings

a. Indicate joint dimensions and adjacent repairs.

b. Provide details for transitions at crossing intersection.

D. Samples

1. The Contractor shall submit a sample for each for each joint seal.

1.04 QUALITY ASSURANCE

1. Manufacturer Qualifications:

a. Minimum 15 years experience in producing bellows type expansion joint.

2. Installer Qualifications:

    a. Installer shall have completed at least 3 similar projects in the last 5 years.

    b. Installer shall be trained, certified, and authorized by the Manufacturer to install the Manufacturer's product.

1.05 PRE-INSTALLATION CONFERENCE

A. Prior to scheduled commencement of the removal, repair, and rehabilitation and other associated work to correct the deteriorated features of the water storage tank, conduct a meeting at the project site with the installer, Engineer, Owner, Owner's representative manufacturer's representative, inspector, and any other persons directly involved with the performance of the Work.

    1. The main purpose of this meeting is to review foreseeable methods and procedures related to the Work.

    2. Schedule meeting at least 2 weeks in advance.

    3. Meetings for related work may be scheduled on the same day to optimize attendance. It is anticipated that all preinstallation conferences can be held in a minimum of one day and a maximum of two.

    4. Manufacturer's representative shall ensure that the Contractor is fully trained in the use of the materials specified, and the methods of installation required.

    5. The Installer shall record conference discussions and include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party.

1.06 WARRANTY

A. Manufacturer Warranty

    1. The Manufacturer shall warrant that the materials and accessories furnished in accordance with these specifications shall remain free from defects for a period of 1 year from date of shipment.

    2. At the time of Substantial Completion, the Manufacturer shall warrant that the installation is not defective in and conforms to the Manufacturer's erection drawings, except for reasonable variances not impairing the usefulness thereof.

B. Warranties Term

    1. The term of the warranties shall begin on the date of Substantial Completion, unless otherwise indicated.

1.07 REPAIR AND REHABILITATION PRELIMINARY WORK

A. Remove damaged materials and prepare the surfaces for repair and rehabilitation.

B. Contractor shall consult with the Engineer and review the prepared surfaces to ensure suitability of repair method selected, and the extent of the repair required prior to the rehabilitation and repair work occurring.

C. Once reviewed and approved, repair and rehabilitation as outlined in the contract documents, or as otherwise directed by the Engineer, shall proceed.

1.08 DAILY PROGRESS AND QUANTITY REPORTS

A. Daily progress of each type of repair shall be tracked and reported using bid form units. These quantities shall be reviewed and approved by the City's inspector. Once approved a record of the agreed upon quantities shall be signed by both the Contractor and the Inspector.

PART 2 -- PRODUCTS

2.01 DUAL-FACED SILICONE BELLOWS

A. Provide a precompressed, silicone coated and acrylic impregnated foam hybrid installed into field-applied epoxy adhesive, with dual-faced silicone bellows and silicone sealant band on watertight side.

B. Dual-Faced Silicone Bellows shall be:

1. DSM-DS System by Sika Emseal

2. Or approved equal

C. Performance Criteria

1. Plus or minus 50 percent, total 100 percent; pass ASTM E1399.

2. Abrasion resistance: Maximum 1 percent weight loss, tested to ASTM D4060.

D. Epoxy Adhesive and Silicone shall be furnished by joint seal manufacturer.

PART 3 -- EXECUTION

3.01 STORAGE, AND HANDLING

A. Storage

1. Store materials carefully in accordance with the Manufacturer's written instructions, in an area that is protected from deleterious elements, and in a manner that will prevent damage to the products.

B. Handling

1. Handle materials in strict accordance with Manufacturer's written instructions.

3.02 PREPARATION

A. Clean joints thoroughly; remove loose and foreign matter that could impair adhesion or performance.

3.03 INSTALLATION

A. Comply with manufacturer's written instructions for handling and installing roof expansion joints.

1. Install joint seal in accordance with Sika Emseal instructions and approved Shop Drawings.

2. Remove joint seal from precompressed packaging, immediately insert into joint, and allow to expand.

3. Use temporary retainers if required to maintain joint seals in position until expansion is complete.

3.04 CLEANING, FINISHING, AND PROTECTION

A. Cleaning shall be performed in accordance with the Manufacturer's written instructions.

1. The Contractor shall make adjustments required until accepted.

2. The Contractor shall remove scratches and blemishes to the satisfaction of the Engineer.

3. Damaged or defective items shall be removed and replaced at the direction of the Engineer.

END OF SECTION

SECTION 07 92 13 – ELASTOMERIC JOINT SEALANTS

PART 1 -- GENERAL

1.01 SUMMARY

A. Section Includes:

1. Sealants and caulking.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Where reference is made to any of the below, the revision in effect at the time of bid opening shall apply.

B. Reference Codes

01 33 00	Submittal Procedures

C. Reference Standards

ASTM International (ASTM)	
ASTM C 920	Elastomeric Joint Sealants
ASTM D 1752	Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction
Sealant, Waterproofing, and Restoration Institute (SWRI)	

1.03 SUBMITTALS

A. Furnish submittals in accordance with Section 01 33 00 – Submittal Procedures.

B. The Contractor shall coordinate color samples with other Sections through the submittal process, as required by the Engineer.

1.04 ACTION SUBMITTALS

A. Product Data

1. Manufacturer’s specifications, technical data, installation methods, and maintenance instructions, and the following:

2. Joint width and depth tables.

3. Manufacturer’s full range color charts, indicating custom color availability, for color selection by Owner.

B. Certifications:

1. Certification of installer qualifications demonstrating compliance with the qualifications requirements indicated. Include a list of 5 similar completed projects with addresses of the project location, date of project completion, and contact information of the consultant firm of record, general contractor and owner.

2. Certification by the Manufacturer's technical field representative that surfaces have been prepared and the products have been applied in accordance with the Manufacturer's recommendations.

3. Certification from an independent testing laboratory that the submitted materials meet the requirements of the references indicated.

C. Application Schedule

1. Furnish a detailed and complete application schedule indicating location and detail of installation.

D. Samples

1. When requested by the Engineer, submit samples of the materials proposed. Samples shall be clearly marked to show the Manufacturer's name, product identification, finish and color. New samples shall be resubmitted of each, as required, until approved by the Engineer. Upon approval, the samples shall become the standard for acceptance for the project with regard to color, finish, and quality of each item. Approval of samples shall not relieve the Contractor from compliance with the Contract Documents.

1.05 QUALITY ASSURANCE

A. Single Source Responsibility

1. Sealants and Caulking shall be provided by a single Manufacturer, each.

B. Qualifications

1. Manufacturer

a. Sealants and caulking Manufacturer shall have a minimum of 20 years of sealants and caulking manufacturing experience.

2. Installer

a. Installer shall have completed at least 3 similar projects in the last 5 years of similar size and scope, employing similar products, materials, applications, and performance requirements.

b. Installer shall be certified by the manufacturer of the repair materials.

C. Manufacturer's Technical Field Representative

1. The Contractor shall arrange for a Manufacturer's technical field representative to be on Site for at least 1 day, beginning at the start of surface preparation and continuing through application, to train the installers and to supervise the Work. The Manufacturer's technical field representative shall observe as necessary to certify in writing that the completed Work has been performed according to the Manufacturer's instructions.

D. Sealant and caulking Work shall comply with the following references:

1. SWRI.

2. ASTM C 920.

E. Rehabilitation and Repair Preliminary Sequencing

1. The Contractor shall mark the estimated boundaries of the work and shall review these limits with the Inspector prior to commencing work activities.

2. Remove damaged concrete and prepare the surfaces for rehabilitation and repair.

3. Contractor shall consult with the Engineer and review the prepared surfaces to ensure suitability of repair method selected, and the extent of the repair required prior to the rehabilitation and repair work occurring.

4. Once reviewed and approved, rehabilitation and repair as outlined in the contract documents, or as otherwise directed by the Engineer, shall proceed.

5. Daily Progress and Quantity Reports

a. Daily progress of each type of repair shall be tracked and reported using bid price units. These quantities shall be reviewed and approved by the City's inspector. Once approved a record of the agreed upon quantities shall be signed by both the Contractor and the Inspector.

1.06 PRE-INSTALLATION CONFERENCE

A. Prior to scheduled commencement of the removal, repair, and rehabilitation and other associated work to correct the deteriorated features of the water storage tank, conduct a meeting at the project site with the installer, Engineer, Owner, Owner's representative manufacturer's representative, inspector, and any other persons directly involved with the performance of the Work.

1. The main purpose of this meeting is to review foreseeable methods and procedures related to the Work.

2. Schedule meeting at least 2 weeks in advance.

3. Meetings for related work may be scheduled on the same day to optimize attendance. It is anticipated that all preinstallation conferences can be held in a minimum of one day and a maximum of two.

4. Manufacturer's representative shall ensure that the Contractor is fully trained in the use of the materials specified, and the methods of installation required.

5. The Installer shall record conference discussions and include decisions and agreements reached (or disagreements), and furnish copies of recorded discussions to each attending party.

1.07 WARRANTY

A. Manufacturer

1. Furnish Manufacturer’s 5-year written warranty to cover defects in materials, products, and manufacturing workmanship.

B. Special Warranty

1. The Contractor shall furnish separate, but concurrently running, 5-year written warranty to cover labor.

C. Warranties shall be non-prorated for the entire warranty period.

D. The term of the warranties shall begin on the date of Substantial Completion.

PART 2 -- PRODUCTS

2.01 GENERAL

A. Sealant and caulking, including compressible filler and joint backing, shall be recommended by the Manufacturer for the installation indicated.

B. Sealant and caulking, including compressible filler and joint backing, shall be suitable for, and compatible with, the required installation.

C. Sealant and caulking, including compressible filler and joint backing, shall be suitable for, and compatible with, the substrates and surfaces indicated.

D. Colors for sealants and caulking above grade and exposed to view shall be selected by the Owner from Manufacturer’s full color range, including custom colors.

2.02 INTERIOR AND EXTERIOR SEALANTS

A. Manufacturer and Product, or Equal:

1. Subject to the requirements indicated, provide Manufacturer and product listed below, or equal:

a. Sikaflex 2c NS EZ Mix + by Sika Corporation, including Sikagard 62 primer as recommended by Manufacturer.

B. Description:

1. A 2-component, premiumgrade, polyurethane-based, elastomeric sealantvertical and horizontal surfaces.

2. Product shall meet ASTM C920, Type M, Grade NS, Class 25, Use T_2 (requiring appropriate total recessed joint design considerations), NT, I, A, G, M and O.

3. Product shall be compliant with NSF/ANSI 61 "Drinking Water System Components - Health Effects" for potable water contact after full cure (reference: IAPMO R&T File No. K-12483).

2.03 JOINT BACKING (BACKER ROD)

A. Description:

1. Joint backing for joints in structure shall be approved, resilient, closed cell polyethylene rods of diameters to suit joint conditions. Joint backing shall comply with ASTM C 1330 and ASTM D 5249.

2. Where joint depth will not allow for a rod and still provide 3/8-in minimum depth of sealant, provide approved bond breaker tape at the bottom of the joint.

3. Joint backing shall be compatible with sealant Manufacturer's product and shall not stain the sealant nor the materials to which applied.

2.04 EXPANSION JOINT FILLER

A. Manufacturer and Product, or Equal:

1. Subject to the requirements indicated, provide Manufacturer and product listed below, or equal:

a. W.R. Meadows, Fibre Expansion Joint.

B. Description:

1. Expansion Joint Filler in structure shall be Resilient, flexible, non-extruding, expansion-contraction joint filler. Cellular fibers securely bonded together, uniformly saturated with asphalt. Joint filler shall conform to the following standards and have the following requirements:

a. ASTM D1751.

b. AASHTO M 213.

c. FAA Spec Item P-610-2.7.

d. COE CRD-C 508.

e. Resilience: When compressed to half of original thickness, recover to a minimum of 70% of original thickness. Where joint depth will not allow for a rod and still provide 3/8-in minimum depth of sealant, provide approved bond breaker tape at the bottom of the joint.

2. Expansion joint filler shall be used as part of a system of materials to be placed in the joints as shown on the contract drawings, and in a manner that the material will not come into contact with potable water.

PART 3 -- EXECUTION

3.01 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Site in Manufacturer's original, unopened packages, containers, or bundles with labels intact, which clearly identify contents.

B. Store materials carefully in accordance with the Manufacturer's written instructions, in an area that is protected from deleterious elements, and in a manner that will prevent damage to the products.

C. Handle materials in strict accordance with Manufacturer's written instructions.

3.02 APPLICATION SCHEDULE

A. Joints noted as "caulk," "caulking," or "sealant" shall be caulked as specified herein.

B. Joints to be caulked or sealed include through-bolt holes, door frames, louver and ventilator frames, joints between openings where items pass through exterior walls, concrete masonry, or combination of these surfaces, and as otherwise indicated or required for watertightness, weatherproofing, or airtightness.

1. Sealants and caulking shall be provided at both exterior and interior surfaces of exterior wall penetrations.

C. Sealants and caulking shall be provided at exterior wall joints, between adjacent materials, joints between frames or louvers and adjacent materials, copings, caps, sills, masonry control joints, and other joints and penetrations indicated or required for the completion of the Work.

D. Sealants and caulking shall be provided at interior joints between frames and masonry, at tops of masonry walls, between masonry and structural concrete, floor joints in tile, joints in rooms to be airtight, and other joints and penetrations on the Contract Drawings or as required for the completion of the Work.

E. Sealants and caulking shall also be installed elsewhere, where indicated on the Contract Drawings.

3.03 PROJECT CONDITIONS

A. Comply with Manufacturer's written instructions, and referenced standards, for environmental conditions before, during, and after installation.

B. Protect surrounding Work from damage that may result from operations under this Section.

3.04 INSPECTION

A. The Contractor shall be totally responsible for the proper performance and completion of the Work under this Section.

B. Systems and components shall be inspected before installation.

1. Damaged or defective items shall be rejected and marked as such and shall be removed from the Site.

C. The Contractor shall verify dimensions, tolerances, and method of attachment with adjacent Work.

1. Examine substrates, areas, and conditions where sealants and caulking will be installed for compliance with the requirements for installation, taking into account tolerances, and other conditions affecting performance of installed sealants and caulking.

a. Surfaces to receive sealants and caulking, including compressible filler and joint backing, shall be dry, free of oil, dirt, dust and other contaminants and loose materials, and shall be in the proper condition as indicated by the Manufacturer prior to the application of the sealant and caulking materials.

b. Masonry, concrete, and cementitious products shall have been completely cured and the surface shall be dry and free from frost at the time of application.

c. Joint shapes and sizes shall be as indicated. Where not indicated, joint shapes and sizes shall be as necessary for job conditions, as directed by the Engineer.

2. Notify the Engineer in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected in an acceptable manner.

3. Commencement of the installation by the Contractor shall indicate Contractor's acceptance of the substrate, areas, and conditions.

3.05 SURFACE PREPARATION

A. Surface preparation shall be in compliance with the applicable references and with the Manufacturer's written instructions.

B. Coatings, including curing compounds, form release agents, and other substances shall be removed as recommended by the sealant and caulking Manufacturer.

C. Protrusions, bumps, ridges, and loose substrate surface materials shall be removed by sanding or grinding.

D. Laitance, efflorescence, and loose mortar shall be removed from the joint cavity.

E. Ferrous metal surfaces shall be cleaned of rust, mill scale, and other coatings by wire brush, grinding, or sandblasting.

F. Protective coatings shall be removed from surfaces to receive sealants and caulking.

1. Solvents used to remove protective coating shall be as recommended by the sealant and caulking Manufacturer, shall be compatible with the adjacent materials and surfaces, shall not damage adjacent finishes, and shall be non-staining.

G. Bituminous or resinous materials shall be removed from surfaces to receive sealants and caulking.

H. Immediately before application of sealant and caulking materials, scrape surfaces to be covered free from foreign materials and brush clean.

I. Substrate shall be swept to remove all loose materials prior to beginning sealant and caulking installation.

3.06 PREPARATION

A. Sequence installation properly with the installation and protection of other WORK, so that neither will be damaged by the installation of the other.

3.07 INSTALLATION

A. Installation shall comply with the requirements of the Contract Documents, with applicable references, and with Manufacturer's written instructions. Where a conflict occurs among these requirements, the more stringent shall apply, as directed by the Engineer.

B. Primer, if recommended by the Manufacturer for the application, shall be applied per the Manufacturer's recommended procedures.

1. Primer shall be used on concrete masonry units, wood, or other porous surfaces in accordance with instructions furnished with the sealant. Primer shall be applied to the joint surfaces to be sealed. Surfaces adjacent to joints shall not be primed.

C. Multi-component sealants shall be mixed according to Manufacturer's printed instructions. Sealant in guns shall be applied with a nozzle of proper size to fit the width of joint. Sealant shall be installed to the required depth without displacing the backing. Unless otherwise indicated or recommended by the Manufacturer, the installed sealant shall be tooled so that the surface is uniformly smooth and free of wrinkles and to assure full adhesion to the sides of the joint. Sealants shall be installed free of air pockets, foreign embedded matter, ridges, and sags. Sealer shall be applied over the sealant if recommended by the sealant Manufacturer.

D. Sealant depth in joints shall be half of the width of joint, but not less than 1/8-in deep and ¼-in wide nor more than 1/2-in deep and 1-in. For joints greater than 1-in wide, provide sealant in a 2 to 1 width-to-depth ratio.

E. Joints shall have a rigid filler material installed to proper depth prior to application of sealant.

F. Masking film shall be placed on the finish surface on one or both sides of a joint cavity to protect adjacent finish surfaces from primer or sealant smears. Masking shall be removed as soon as possible after joint has been filled and tooled.

G. Backing shall be installed to provide the indicated sealant depth. The installation tool shall be shaped to avoid puncturing the backing.

H. Bond-breaker shall be applied to fully cover the bottom of the joint without contaminating the sides where sealant adhesion is required.

I. A full bead of sealant shall be applied into the joint under sufficient pressure, with the nozzle drawn across sealant, to completely fill the void space and to ensure complete wetting of contact area to obtain uniform adhesion. During application, the tip of the nozzle shall be kept at the bottom of the joint thereby forcing the sealant to fill from the bottom to the top. Sealants shall be tooled immediately after exposure with a caulking tool or soft bristled brush moistened with solvent. The finished sealant-filled joint shall be slightly concave unless otherwise indicated.

3.08 CLEANING, FINISHING, AND PROTECTION

A. Adhesive papers used for masking which become firmly bonded when exposed to heat and/or light shall not be used.

1. Remove masking film and temporary labels as soon as possible after installation. Films and labels left in place after installation shall be the responsibility of the Contractor.

2. Residue shall not be left on any surfaces.

3. The surfaces of materials adjoining caulked joints shall be cleaned free of smears of sealant or other soiling due to caulking operations.

B. Sealants and caulking shall be protected from damage from subsequent construction operations.

C. The Contractors shall make adjustments required until accepted.

D. Damaged or defective items shall be removed and replaced at the direction of the Engineer.

E. When sealant and caulking Work is completed, remove unused materials, containers, and equipment, and clean the Site of sealant and caulking debris.

END OF SECTION