



City of Tacoma, WA

**TACOMA POWER/POWER SHARED SERVICES**

**REQUEST FOR BIDS**

**FACILITIES GENERAL ON-CALL CONSTRUCTION SERVICES**

**SPECIFICATION NO. PS24-0149F**



**City of Tacoma  
Tacoma Power/Power Shared Services**

**REQUEST FOR BIDS PS24-0149F  
Facilities General On-Call Construction Services**

**Submittal Deadline: 11:00 a.m., Pacific Time, Tuesday, August 13, 2024**

Submittals must be received by the City's Procurement and Payables Division prior to 11:00 a.m. Pacific Time. For electronic submittals, the City of Tacoma will designate the time of receipt recorded by our email, [sendbid@cityoftacoma.org](mailto:sendbid@cityoftacoma.org), as the official time of receipt. This clock will be used as the official time of receipt of all parts of electronic bid submittals. Late submittals will be returned unopened and rejected as non-responsive.

**Submittal Delivery:** Sealed submittals will be received as follows:

**By Email:**

[sendbid@cityoftacoma.org](mailto:sendbid@cityoftacoma.org)

Maximum file size: 35 MB. Multiple emails may be sent for each submittal.

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

**Solicitation Documents:** An electronic copy of the complete solicitation documents may be viewed and obtained by accessing the City of Tacoma Purchasing website at [www.TacomaPurchasing.org](http://www.TacomaPurchasing.org).

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

**Pre-Bid Meeting:** A pre-bid meeting will be held at the date and time specified in the calendar of events, 1:00 P.M., in Conference Room ABN-M1(main floor) of the Tacoma Public Utilities Administrative Building North, 3628 S 35th St, Tacoma, WA .

**Project Scope:** This project includes minor construction, repair, renovation, alterations, and maintenance projects on an as-needed basis as may be required for Tacoma Public Utilities Administration Complex (Utility Center). Occasionally work will be required at Tacoma Power's service area facilities or hydroelectric projects.

**Estimate:** \$3,800,000

**Paid Sick Leave:** The City of Tacoma requires all employers to provide paid sick leave as set forth in Title 18 of the Tacoma Municipal Code and in accordance with State of Washington law.

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

**Title VI Information:**

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

**Additional Information:** Requests for information regarding the specifications may be obtained by contacting Aaron Bratton, Senior Buyer by email to [abratton@cityoftacoma.org](mailto:abratton@cityoftacoma.org).

**Protest Policy:** City of Tacoma [protest policy](#), located at [www.tacomapurchasing.org](http://www.tacomapurchasing.org), specifies procedures for protests submitted prior to and after submittal deadline.


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

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## SUBMITTAL CHECK LIST

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

<p><b>The following items make up your complete electronic submittal package (include all the items below):</b></p>	
<p><b>Signature Page (Appendix B)</b> To be filled in and executed by a duly authorized officer or representative of the bidding entity. If the bidder is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.</p>	
<p><b>Price Proposal Form (Appendix B)</b> The unit prices bid must be shown in the space provided. Check your computations for omissions and errors.</p>	
<p><b>Bid Bond (Appendix B)</b></p>	
<p><b>Certification of Compliance with Wage Payment Statutes (Appendix B)</b> Bidder shall complete this form in its entirety to ensure compliance with state legislation (SHB 2017).</p>	
<p><b>State Responsibility and Reciprocal Bid Preference Information (Appendix B)</b> Bidder shall complete this form in its entirety to ensure compliance with state legislation (SHB 2010).</p>	
<p><b>EIC Utilization Form (Appendix B)</b></p>	
<p><b>Record of Prior Contracts Form (Appendix B)</b></p>	
<p><b>List of Subcontractor Categories of Work (Appendix B)</b></p>	
<p><b>Content listed under Section 1. Minimum Requirements</b></p>	
<p><b>After award, the following documents will be executed:</b></p>	
<p><b>City of Tacoma Contract (See sample in Appendix C)</b> Must be executed by the successful bidder.</p>	
<p><b>Certificate of Insurance and related endorsements (Appendix D)</b> Shall be submitted with all required endorsements</p>	
<p><b>Payment and Performance Bonds (See samples in Appendix C)</b> Payment Bond and Performance Bond: Must be executed by the successful bidder and his/her surety company</p>	

General Release (See sample in Appendix C)	
LEAP Program/EIC Requirements and Forms (Appendix D)	

## **SPECIAL NOTICE TO BIDDERS**

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

### **I. STATE OF WASHINGTON**

#### **A. RESPONSIBILITY CRITERIA – STATE OF WASHINGTON**

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

1. Have a current certificate of registration as a contractor in compliance with chapters 18.27 RCW, 18.106 RCW, 70.87 RCW, 19.28 RCW, which must have been in effect at the time of bid submittal;
2. Have a current Washington Unified Business Identifier (UBI) number;
3. If applicable:
  - a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
  - b. Have a Washington Employment Security Department number, as required in Title 50 RCW;
  - c. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW and;
4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).
5. Have received training on the requirements related to public works and prevailing wage under this chapter and chapter 39.12 RCW and must designate a person or persons to be trained on these requirements. The training must be provided by the department of labor and industries or by a training provider whose curriculum is approved by the department. Bidders that have completed three or more public works projects and have had a valid business license in Washington for three or more years are exempt from this subsection.

#### **B. RECIPROCAL PREFERENCE FOR RESIDENT CONTRACTORS:**

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

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

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

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

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

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

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

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

### **C. SUBCONTRACTOR RESPONSIBILITY**

1. The Contractor shall include the language of this subcontractor responsibility section in each of its first tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. The requirements of this section apply to all subcontractors regardless of tier.
2. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:
  - a. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
  - b. Have a current Washington Unified Business Identifier (UBI) number;
  - c. If applicable, have:
    - i. Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
    - ii. A Washington Employment Security Department number, as required in Title 50 RCW;
    - iii. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
    - iv. An electrical contractor license, if required by Chapter 19.28 RCW;
    - v. An elevator contractor license, if required by Chapter 70.87 RCW and;
3. Not be disqualified from bidding on any public works contract under RCW 39.06.010 (unlicensed or unregistered contractors) or 39.12.065(3) (prevailing wage).



## **II. CITY OF TACOMA**

### **A. SUPPLEMENTAL RESPONSIBILITY CRITERIA – CITY OF TACOMA:**

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

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

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

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

The City may require bidders to furnish information, sworn or certified to be true, to demonstrate compliance with the City responsibility criteria set forth above. If the city manager or director of

utilities is not satisfied with the sufficiency of the information provided, or if the prospective respondent does not substantially meet all responsibility requirements, any submittal from such respondent must be disregarded.

**B. ADDITIONAL SUPPLEMENTAL CRITERIA**

See section 1. Minimum Requirements.

**C. MODIFICATIONS TO SUPPLEMENTAL CRITERIA**

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

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

**D. DETERMINATION OF BIDDER RESPONSIBILITY**

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

## **1. MINIMUM REQUIREMENTS**

The information below is **required to be included** with your submittal package and will be used to determine the Contractor's minimum experience. Failure to submit this information will be grounds for bid rejection.

The City shall be the sole judge in determining if the prospective Contractor meets the minimum requirements. The City reserves the right to take whatever action it deems necessary to ascertain the ability of the bidder to perform the work satisfactory.

1. Experience and success of both company and superintendent completing at least three (3) projects of similar scope, complexity, and overall cost. A detailed list of comparable projects with a current list of contacts shall be submitted with the bids.
2. A minimum of seven (7) documented years of experience in building or facilities construction supervision by superintendent. Bidders shall submit a resume of named superintendent with their bids.

## **2. GENERAL PROVISIONS**

City of Tacoma General Provisions apply. (See Appendix D)

## **3. INSURANCE REQUIREMENTS**

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

## **4. DESCRIPTION OF WORK**

The City of Tacoma (City) / Tacoma Public Utilities (TPU) is soliciting bids to establish one or more contracts with qualified vendors to fulfill the City's needs for the Facilities General On-Call Construction Contract. Refer to Appendix A for the complete summary of work. Contract(s) will be awarded to the lowest responsive and responsible bidder(s) based on price, product quality and availability.

It is the responsibility of the Contractor to ensure all scope of work elements required to provide a complete and operational facility is incorporated into their proposal. Facilities Planning anticipates utilization of the contract services at a rate for an estimated maximum total of \$3,800,000. The rate of use of these services is largely dictated by the amount of unplanned work.

## **5. ANTICIPATED CONTRACT TERM**

The contract will be for a three-year period with the option to renew the contract with one additional one-year option to extend, for a total contract period of four-years. The City reserves the right to cancel the contract for any reason, by written notice, as stipulated in the contract.

## 6. CALENDAR OF EVENTS

This is a tentative schedule only and may be altered at the sole discretion of the City.

Contract may be issued after Public Utility Board and/or City Council approval.

The anticipated schedule of events concerning this RFB is as follows:

Advertise:	<b>7/8/2024</b>
Pre-Bid Meeting:	<b>7/15/2024</b>
Question Deadline:	<b>7/18/2024</b>
City response to Questions:	<b>7/24/2024</b>
Submittal Due Date:	<b>8/13/2024</b>
Anticipated Award Date, on or about:	<b>August 2024</b>
Public Utility Board/City Council Approval, on or about:	<b>September 2024</b>

## 7. INQUIRIES

- 7.1 Questions can be submitted to *Aaron Bratton*, Senior Buyer, via email to [abratton@cityoftacoma.org](mailto:abratton@cityoftacoma.org). Subject line to read:  
PS24-0149F – Facilities General On-Call Construction Services – *VENDOR NAME*
- 7.2 Questions are due by 3 pm on the date included in the Calendar of Events section.
- 7.3 Questions marked confidential will not be answered or included.
- 7.4 The City reserves the discretion to group similar questions to provide a single answer or not to respond when the requested information is confidential.
- 7.5 The answers are not typically considered an addendum.
- 7.6 The City will not be responsible for unsuccessful submittal of questions.
- 7.7 Written answers to questions will be posted alongside these specifications at [www.tacomapurchasing.org](http://www.tacomapurchasing.org).

## 8. PRE-BID MEETING

A pre-bid meeting will be held at the date specified in the calendar of events at 1:00 P.M., in Conference Room ABN-M1(main floor) of the Tacoma Public Utilities Administrative Building North, 3628 S 35th St, Tacoma, WA.

## 9. DISCLAIMER

The City is not liable for any costs incurred by the Respondent for the preparation of materials or a proposal submitted in response to this RFB, for conducting any presentations to the City, or

any other activities related to responding to this RFB, or to any subsequent requirements of the contract negotiation process.

## **10. RESPONSIVENESS**

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

## **11. AWARD**

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

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

All other elements or factors, whether or not specifically provided for in this specification, which would affect the final cost to and the benefits to be derived by the City will be considered in determining the award of the contract. The final award decision will be based on the best interests of the City.

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

1. Compliance with specification.
2. Proposal prices, listed separately if requested, as well as a lump sum total
3. Time of completion/delivery.
4. Warranty terms.
5. Bidder's responsibility based on, but not limited to:
  - a) Ability, capacity, organization, technical qualifications and skill to perform the contract or provide the services required.
  - b) References, judgment, experience, efficiency and stability.
  - c) Whether the contract can be performed within the time specified.
  - d) Quality of performance of previous contracts or services.

## 12. PREVAILING WAGE INFORMATION

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

The project sites are located in Grays Harbor, King, Lewis, Mason, and Pierce County/Counties.

The effective date for prevailing wages on this project will be that in effect on the beginning date for each contract year with these exceptions:

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

Except for janitorial contracts, these rates shall apply for the duration of the contract unless otherwise noted in the solicitation.

Look up prevailing rates of pay, benefits, and overtime codes from this link:

<https://secure.lni.wa.gov/wagelookup/>

## REQUIRED FILINGS

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

1. A Statement of Intent to Pay Prevailing Wages must be filed with and approved by L&I upon award of contract.
2. An Affidavit of Wages Paid must be filed with and approved by L&I upon job completion.
3. For on-call contracts, retainage can be released annually. Please see the Intent-Affidavit Info for On-Call Contracts in Appendix D.

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

## 13. BID BONDS

The attached Bid Bond (Appendix B) must be executed by the person legally authorized to sign the bid and must be properly signed by representatives of the surety company unless the bid is accompanied by a certified check or cashier's check.

- 13.1** If a Bid Bond is used, the form furnished by the City must be followed; no variation from the language thereof will be accepted. The amount of the Bid Bond must be not less than five percent (5%) of the total amount bid; and, if shown in dollars and cents, the amount of said Bid Bond must be not less than the required five percent; or in lieu of dollars and cents, the bond may be completed by inserting therein, "five percent of the amount of the accompanying proposal". Bid Bonds will not be returned. Bid Bond should be submitted electronically with bid submittal. Hard copies should be postmarked no later than the submittal date.
- 13.2** If a certified or cashier's check is provided by the successful Respondent(s), the amount of their check will be refunded after award of the Contract, City's receipt of the signed Contract, and acceptance of the Performance Bond, if applicable. Unsuccessful Respondents providing certified checks will be refunded the amount of their check upon award of the Contract.
- 13.3** Failure to furnish a Bid deposit of a minimum of 5 percent shall make the bid nonresponsive and shall cause the bid to be rejected by the City.

A deposit of at least 5 percent of the total Bid shall accompany each Bid. This deposit may be cash, certified check, cashier's check, or a proposal bond (Surety bond). Any proposal bond shall be on the Contracting Agency's form and shall be signed by the Bidder and the Surety. A proposal bond shall not be conditioned in any way to modify the minimum 5 percent required. The Surety shall: (1) be registered with the Washington State Insurance Commissioner, and (2) appear on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner.

The failure to furnish a Bid deposit of a minimum of 5 percent shall make the Bid nonresponsive and shall cause the Bid to be rejected by the Contracting Agency.

If submitting your bid electronically, A scanned version of the original bid bond or cashier's check shall accompany your electronic bid submittal. The original bid bond or cashier's check shall be sent to the Contracting Agency and received by the Contracting Agency within 7 calendar days of the bid opening or the bidder may be deemed non-responsive.

Original bid bonds or cashier's check will be delivered to:

City of Tacoma Procurement & Payables Division

Tacoma Public Utilities

3628 South 35th Street

Tacoma, WA 98409

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

#### **14. PAYMENT AND PERFORMANCE BOND**

A payment and performance bond, including power of attorney, for this project is required in the amount of 25 percent of the Contract total.

- 14.1** The City's payment and performance bond forms must be used.
- 14.2** The payment and performance bonds must be executed by a surety company licensed to do business in the state of Washington.
- 14.3** The cost of a payment and performance bonds must be included in submittal prices. Bonds will not be paid as a separate line item.
- 14.4** For a supply-type contract, a certified cashier's check or cash may be substituted for the bonds; however, this cash or check must remain with the City through the guarantee period and any interest on said amount shall accrue to the City.

The same bonds can remain in place over the life of the contract and annual status inquiries can be directed to Aaron Bratton via email to [abratton@cityoftacoma.org](mailto:abratton@cityoftacoma.org).

## **15. DELIVERY**

- 15.1** Delivery shall be to the City of Tacoma, 3628 South 35<sup>th</sup> Street, Tacoma, WA, 98409. Each vendor will be required to submit a delivery timeline they can commit to. Purchase order delivery dates will reflect this timeline. In the event a purchase order deliver date is not met, the City reserves the right to purchase these products elsewhere if they are in a time constraint. If constant late deliveries occur, the City may terminate the contract.
- 15.2** Hours of operation shall be Monday through Friday, 9:00 a.m. to 3:30 p.m., excluding legal holidays, as referred to in the Standard Terms and Conditions or as otherwise approved by the City.

## **16. WARRANTY**

**Labor:** Minimum three (3) year warranty.

**Parts:** Manufacturer's warranty or minimum one-year warranty whichever is greater.

Contractor shall arrive on-site at the Contract Task Order project site within 48 hours of notification for all warranty repairs during normal work hours of 8:00 a.m. to 5:00 p.m. Monday through Friday. Repairs shall include free pick-up and delivery. Repairs must be completed and vehicle returned within 48 hours of pick-up.

Contractor agrees to allow City to make minor warranty repairs where that is most cost effective and, if requested, contractor will credit City for cost of parts, but not labor.

Vendor will warrant goods according to the manufacturer's warranty guidelines. The start of the warranty commences once the goods are delivered and accepted by the City.



## **17. INSPECTION**

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

Material failing to meet the requirements of this contract will be held at Vendor's risk and may be returned to Vendor. If so returned, the cost of transportation, unpacking, inspection, repackaging, reshipping, or other like expenses are the responsibility of the Vendor.

## **18. COMPLIANCE WITH SPECIFICATIONS**

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

## **19. MATERIALS AND WORKMANSHIP**

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

## **20. ENVIRONMENTALLY PREFERABLE PROCUREMENT**

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

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

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

## **21. LEAP REQUIREMENTS**

This project has LEAP Requirements, see Appendix D for complete LEAP documentation.

## **22. EQUITY IN CONTRACTING**

This project has EIC requirements, see Appendix D for complete EIC documentation.

## **APPENDIX A**

### General Requirements & Technical Provisions

**DEPARTMENT OF PUBLIC UTILITIES  
FACILITIES GENERAL CONSTRUCTION ON-CALL CONSTRUCTION  
SERVICES  
SPECIFICATION NO. PS24-0149F**

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## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 10 00 – SUMMARY OF WORK**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### **1.02 PROJECT DESCRIPTION**

- A. This project includes minor construction, repair, renovation, alterations, and maintenance projects on an as-needed basis as may be required for Tacoma Public Utilities Administration Complex (Utility Center). Occasionally work will be required at Tacoma Power's service area facilities or hydroelectric projects.
- B. Other work typically required includes electrical, communications, security access control, mechanical, plumbing and HVAC, fire alarm and suppression system work, painting and carpentry that may be provided by Tacoma Power staff or on a separate contract. Each project will be discussed with the contractor to identify scope of work and coordination requirement of the contractor.
- C. Each project included with this contract will be issued by a separate Contract Task Order. The project manager for each Contract Task Order will request a proposal for the Work. If the proposal from the Contractor is accepted the City will issue a Contract Task Order form as shown in appendix C of these Contract documents. The City reserves the right to modify this Contract Task Order form at any time throughout the duration of the Contract.

##### **1.03 PROJECT LOCATION**

- A. Work associated with this proposal will be typically located at the Tacoma Public Utilities Administrative Complex (Utility Center),  
3628 South 35th Street  
Tacoma, WA 98409
- B. Occasional, work may be required at one of Tacoma Power's service area facilities or hydroelectric projects.
- C. Mobilization and demobilization costs for work are paid only once for each task order and added to the items listed on the proposal sheet for all work required.
- D. Mobilization and demobilization costs for work in the service area facilities or hydroelectric projects shall be incidental, and no additional compensation will be given for those projects.

##### **1.04 SITE VISITS AND EXISTING INFORMATION**

- A. Prior to each Contract Task Order the Contractor will be responsible for examining the site(s) and compared the existing conditions with the specifications and contract drawings, and be satisfied as to the facilities and difficulties associated with the execution of the proposed Contract Task Order (such as uncertainty of weather, floods, nature and condition of materials to be handled and all other conditions, special work conditions including work schedules, obstacles, and contingencies) before the delivery of their Contract Task Order proposal.
- B. No allowance will be subsequently made by the City on behalf of the Contractor by reason of any error or neglect on the Contractors part, for such uncertainties as aforesaid.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 10 00 – SUMMARY OF WORK**

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- C. Tacoma Power shall make no adjustment to the price or provide any compensation to the Contractor for impacts relating to the Contractor's failure to consider the potential impacts of not only the site conditions observed, but changes in the observed conditions that could have been foreseen by the Contractor.
- D. By entering into the Contract Task Order, the Contractor represents that they have inspected in detail the project site and has become familiar with all the physical and local conditions affecting the project and/or the project site.
- E. Any information provided by the City to the Contractor, relating to existing conditions on, under, or to the project and/or site including, but not limited to information pertaining to hazardous material abatement and other conditions affecting the project site, represents only the opinion of the City as to the location, character, or quantity of such conditions and is provided only for the convenience of the Contractor.
- F. The City assumes no responsibility whatsoever with respect to the sufficiency or accuracy of such information provided by the City and there is no guarantee, either expressed or implied, that the conditions indicated or otherwise found by the Contractor as a result of any examination or exploration are representative of those existing throughout the work and/or project site.
- G. The Contractor shall draw their own conclusions from information provided by the City and make tests, review and analyses as the Contractor deems necessary to understand such conditions and to prepare their Contract Task Order proposal.
- H. The Contractor shall carefully study and compare the contract documents with each other and shall immediately report to the City any errors, inconsistencies or omissions discovered. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency, or omission in the contract documents without such notice to the City, the Contractor shall assume the risk and responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.
- I. The Contractor shall take field measurements and verify field conditions for each Contract Task Order and shall carefully compare such field measurements, conditions and other information known with the contract documents prior to procurement or materials or construction activities.

#### **1.05 COMMENCEMENT**

The Contractor will be required to complete the Contract Task Order contract documents and to provide surety and payment bonds within ten (10) calendar days after the award of the Contract Task Order. The Contractor shall start the work to be performed in the Contract Task Order no later than ten (10) calendar days after the notification to proceed date, or as agreed upon with the City. Notification to proceed may either be by issuance of the executed Contract Task Order, letter, or by agreement at the preconstruction conference.

#### **1.06 SPECIFICATION FORMAT**

- A. This specification is written and formatted for use with Public Works specifications and is numbered to be consistent with other specifications, including Construction Specifications Institute (CSI) format, as modified by the City. It is not intended to indicate what work is to be accomplished by various subcontractors on the project. In all cases, the City's contract is with one (1) general contractor and it is the general contractor's responsibility to insure all work required to provide a complete and operational facility is included in their bid.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 10 00 – SUMMARY OF WORK**

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- B. When possible, the City has tried to reference work which should be included with various trades, but it is the contractor's responsibility to ensure all work is properly coordinated. The numbering system in the Special Provisions Section reflects standard provisions written by the City and assigned constant numbers. Thus, gaps will appear when specific sections are not used.

#### **1.07 CONTRACT WORK TIMES**

- A. Contract work times shall be Monday through Friday, 6:30 a.m. to 6:00 p.m. The Tacoma Public Utilities Administration Complex will be used for on-going operations of the Utility for the duration of the contract. The Contractor shall also be responsible to minimize disruptions to the complex during working hours.
- B. Overnight and weekend work may be required for various tasks, including work deemed by the City's project manager or representative to be excessively odorous, noisy, dusty, or disruptive to the ongoing operations or staff of Tacoma Public Utilities.
- C. Overnight and weekend work shall be coordinated with the City a minimum of 5 business days prior to start of work and shall be performed at no additional cost to the City or delay to the project schedule. Overnight work shall be from 5:30 p.m. to 5:30 a.m.
- D. Contract workdays shall be Monday through Friday, excluding holidays, described in Section 2.13 of the General Provisions or as otherwise approved by the City.
- E. If the Contractor elects to work on a Saturday, Sunday, holiday or longer than the designated contract work times, such work shall be considered overtime work.
- F. For all overtime work, a City project manager or representative must be present. The Contractor shall reimburse the City for the full amount of the costs for City employees who must work any such overtime hours. It shall be the City's project manager or representative's decision as to when an inspector is required. For the purpose of estimation of reimbursement of City employee's overtime, the bidder shall budget \$70.00 per hour.
- G. If the City orders work to be performed on overtime, all City employees' overtime costs will be at no expense to the Contractor. The City will not require reimbursement for overtime hours worked by the City for inspection as detailed in the General Provisions if the conditions of this paragraph are met to the satisfaction of the project manager or representative.

#### **1.08 QUALIFICATION OF CONTRACTORS**

- A. Only contractors or subcontractors with management, employees, and staff experienced in the type of work required by Contract Task Order, and require by these specifications, and with a record of successful completion of projects of similar scope, complexity, and overall cost will be allowed to work on this Contract Task Order.
- B. The Contractor shall employ a competent superintendent who shall be present at the project site at all times during the entire progress of the work. The superintendent shall be on site even when only a subcontractor is working, unless otherwise approved by the City's project manager or representative.
- C. The superintendent shall have full authority to act on Contractor's behalf. It will be the superintendent's responsibility to have a set of plans and specifications on the project site during the progress of the work. The superintendent shall mark or record on the plans all changes made during construction. Such "as-built" plans shall be available



## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 10 00 – SUMMARY OF WORK**

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to the project manager or representative at all times and shall be delivered to the project manager or representative upon completion of the work.

#### **1.09 SPECIFICATIONS AND DRAWINGS**

- A. Drawings will be provided to the Contractor for each Contract Task Order.
- B. Contract documents include but are not limited to these specifications and construction drawings.
- C. Contract Documents shall be onsite and maintained at all times through the course of construction. It is the Contractors responsibility for maintaining all As-Built redlines which will be submitted to the City's project manager or representative with each pay request. Payments will not be processed without complete current As-Built redline mark-ups being submitted.
- D. An electronic file of "For Construction" Contract Documents will be furnished to the Contractor for each Contract Task Order. It shall be the contractor's responsibility to print and provide sufficient sets of drawings for building purposes to construction personnel and Subcontractor.

#### **1.10 WORK BY THE CITY**

- A. Work that is to be completed by the City will be defined at the onset of each Contract Task Order and shown on the construction drawings as 'NIC' (not in contract) or 'By City'. For these cases, the components referenced will be furnished and installed by City (unless specifically noted otherwise).
- B. Work by City will be performed before or concurrently with the work in this Contract Task Order.

### **PART 2 - PRODUCTS**

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**NOT USED**

### **PART 3 - EXECUTION**

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**NOT USED**

<b>END OF SECTION</b>
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**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 14 00 – WORK RESTRICTIONS**

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**PART 1 -GENERAL**

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**1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

**1.02 SITE COORDINATION**

- A. Operation of Existing Facilities: The facilities or portions of facilities within the project limits must be kept in continuous operation throughout the construction period. No interruption will be allowed which adversely affects the degree of service provided. Provided permission is obtained by the City in advance, portions of the existing facilities may be taken out of service for short periods.
- B. The contractor shall also be responsible to minimize disruptions to building occupants during working hours 6:30 a.m. to 6:00 p.m., Monday through Friday. Some projects may require work outside of office hours, i.e. evenings and weekends, to avoid disruptions
- C. It is possible that other contractors or the City will be working in the project area and other buildings at the Utilities Center project during the time of construction. It shall be the responsibility of this contractor to coordinate its work with all other agencies and/or contractors within the project area.
- D. The contractor shall be responsible for coordinating and scheduling the work to be performed by the City so that it coincides with the contractor's work.
- E. All construction activities shall be coordinated daily with the project manager or representative or their designated representative. Changes to the schedule that will impact on dates shown as milestones on the schedule shall be coordinated with the project manager or representative on a daily basis.
- F. The contractor shall become familiar with the ongoing operations and include all coordination required as part of the work. The contractor shall follow all requirements of the City and do all coordination as part of the required work.
- G. The contractor shall coordinate scheduling, submittals, and all work specified herein to assure efficient and orderly sequence of the installation of interdependent construction elements with provisions for accommodating items installed later.

**1.03 USE OF PREMISES**

- A. City Occupancy: The project and/or its surrounding area will be occupied/used by the City of on-going daily operations.
- B. Use of Site: Limit use of premises to Work in areas indicated. Do not disturb portions of the site beyond areas in which the Work is indicated.
  - 1. Unless otherwise indicated, keep roadways, building entryways, pathways, and sidewalks clear and available to the City and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
    - a. Schedule deliveries to minimize the use of roadways and minimize space and time requirements for storage of materials and equipment on-site.
    - b. The project and/or its surrounding area will be occupied/used by the City of on-going daily operations

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 14 00 – WORK RESTRICTIONS**

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- c. Maintain barriers dividing work area from area in City use.
- C. Contractor shall provide temporary facilities and make temporary modifications as necessary to keep the existing facilities in operation during the construction period.
- D. All requests for use of areas not designated for use by the Contractor shall be made in writing to the project manager or representative for approval at least five (5) working days in advance of the need. The project manager or representative shall evaluate those areas for use prior and notify the Contractor in writing the if use of those areas are acceptable.
- E. Work Hours:
  - 2. Weekdays (Monday through Friday): 6:30 a.m. to 6:00 p.m.
  - 3. Overnight (Monday through Friday): 5:30 p.m. to 5:30 a.m.
  - 4. Weekends: see Section 01 10 00 – Summary of Work
  - 5. Federal, State, and City Holidays: No work permitted

#### **1.04 NOISE CONTROL**

- A. Meet all requirement of RCW70A, WAC 173-58, and WAC 173-60-040. Maintain the level of construction noise inside adjacent buildings from exceeding a dB(A) 60 curve (with windows closed).
- B. Meet all requirements of the City of Tacoma Municipal Code.
- C. Air Compressors: Equip air compressors with silencing packages. Electric-driven compressors are preferred.

#### **1.05 STAGING AND STOCKPILE AREAS**

- A. Limit staging and stockpile areas to the areas shown on the drawings or as directed by the City's project manager or representative. Contractor's use of these areas shall be limited to purposes directly related to the construction of the Contract Task Order. If additional staging and/or stockpile area may be required, notify the City in writing. No use of the additional staging or stockpile area is permitted until the City provides written approval of Contractor's proposal.
- B. The Contractor may provide staging and storage areas off-site at the Contractor's discretion. Provide the City with locations for approval.

#### **1.06 RESTORATION CLAUSE**

- A. Restore all areas disturbed by the construction process to their original or better conditions.
- B. Unless otherwise designated, protect all existing site features to remain from potential Contractor damage. If unavoidable damage occurs, notify the City immediately and the City will render a decision as to how the feature(s) will be replaced or the damage repaired at the Contractor's expense.

#### **1.07 EQUIPMENT STANDARDS**

- A. All equipment furnished and/or installed under this Contract Task Order shall meet the safety requirements of all applicable Federal, State, or Local codes.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 14 00 – WORK RESTRICTIONS**

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**PART 2 – PRODUCTS**

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**NOT USED**

**PART 3 -- EXECUTION**

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**NOT USED**

<b>END OF SECTION</b>
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## **DIVISION 01 – GENERAL REQUIREMENT**

### **SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

- A. The provisions and intent of the Contract Task Order, including the General Conditions, apply to this work as specified in this section. Work related to this section is described throughout these specifications.
- B. Individual submittals are described throughout and are required in accordance with the pertinent sections of these specifications.

##### **1.02 SCHEDULE OF VALUES**

For each Contract Task Order submit a schedule of values to be accepted by the City. At a minimum the schedule of values shall meet the following requirements:

- A. An electronic form with the schedule of values shall be submitted and accepted by the City. Contractor's standard form or an electronic media printout will be considered. Forms filled out by hand will not be accepted.
- B. Submit for City approval an electronic format of Schedule of Values, a minimum of 10 days prior to the first application for payment submittal. An approved schedule of values will be used by the City as a basis for progress payments.
- C. Revise the schedule of values as required to list Change Order Proposals with each payment application.

##### **1.03 PROGRESS PAYMENTS**

- A. Monthly pay estimates shall clearly identify the work performed for the given time period based on a percentage of work completed as outlined in the schedule of values.
- B. Prior to submitting pay estimates to the City, the Contractor and Project Manager or representative shall review the work accomplished to determine the actual quantities including labor, materials and equipment charges to be billed. Following the Project Manager's review, the Contractor shall prepare and original pay estimate with complete supporting documentation attached and submit to the attention of the Contracts Administrator. The pay estimate may be mailed, hand delivered, or submitted electronically using a PDF file format.

Contract Administrator Tacoma Power  
Power Shared Services/Facilities  
3628 South 35th Street  
Tacoma, Washington 98409

- C. Non-payment for rejected or surplus products  
Payment will not be made for any of the following:
  - 1. Products wasted or disposed of in a manner that is not acceptable.
  - 2. Products determined as unacceptable before or after placement.
  - 3. Products not completely unloaded from the transporting vehicle.
  - 4. Products placed beyond the lines and levels of the required work.
  - 5. Products remaining on hand after completion of the work.
  - 6. Loading, hauling and disposing of rejected products

## **DIVISION 01 – GENERAL REQUIREMENT**

### **SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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#### **1.04 MODIFICATION PROCEDURES**

- A. The City will advise the Contractor of minor changes in the work that will not involve an adjustment to the Contract Task Order Price, or Contract Time as authorized in the General Conditions of the Contract.
- B. For changes where advanced pricing is needed, the City will issue a request for Change Order Proposal that includes a description of a proposed change, and may have supplementary or revised drawings and specifications, a change in Contract Task Order time for executing the change and the period of time during which the requested price will be considered valid. The Contractor will prepare and submit a fixed price quotation within 10 working days.
- C. Contractor may propose a change by submitting in writing a request for change to the City. This request for change shall have at a minimum a statement describing the reason for the change, and the effect on the Contract Task Order price and Contract Task Order time with documentation.
- D. Computation of Contract Price: Will be as specified in the General Conditions.
  - 1. For change order as requested by the City, the amount will be based on the Contractor's price quotation.
  - 2. For changes requested by the Contractor, the amount will be based on the Contractor's request for change order as approved by the City.
  - 3. For changed order by the City without quotation from the Contractor, the amount will be determined by the City based on the Contractor's substantiation of costs as specified for Time and Material work.
- E. Substantiation of Costs: Provide full information required for evaluation and acceptance.
  - 1. At a minimum the followings data shall be provided:
    - a. Quantities of products, labor, and equipment
    - b. Justification for any Contract Task Order Time.
    - c. Credit for deletions from the Contract Task Order, documented similarly.
    - d. Invoices and receipts for products, equipment, and subcontracts, documented similarly.
- F. Execution of Change Orders: The City will issue Change Orders for signatures of parties as required per the General Conditions and Contract Task Order terms.
- G. After execution of the Change Order the Contractor shall promptly revise the schedule of values and application of payment forms to record each authorized Change Order as a separate line item and adjust the Contract Task Order Price.

#### **1.05 APPLICATION FOR FINAL PAYMENT**

- A. Prepared application for final payment as specified for progress payments, identifying the total adjusted Contract Task Order price, previous payments, and remaining sum due.
- B. Application for final payment will not be considered until the following have been accomplished:
  - 1. Closeout procedures specified in Section 01 70 00 – Execution and Closeout Requirements.

## **DIVISION 01 – GENERAL REQUIREMENT**

### **SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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2. Contractor's Certification of Payment Debts Claims.
3. Contractor's Certificate of Release Liens.
4. Completion of punch list with City's approval.
5. Completion of all Change Orders.
6. Submittal of Affidavit of wages paid for Contractor and subcontractors.
7. Labor and Industry release
8. Sign-off of all required permits.

#### **1.06 PAYMENT PRICING**

- A. Pricing for the various lump sum or unit prices required per the Contract Task Order, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the work in accordance with the requirements of the Contract Task Order documents.
- B. Pricing also includes all costs of compliance with the regulations of public agencies having jurisdiction, including safety and health requirement of the Occupational Safety and Health Administration of the U.S. Department of Labor.
- C. There will be no separate payment for any item that is not specifically set forth on the schedule of values, and all costs therefore shall be included in the prices named in the schedule of values for the various appurtenant items of work.
- D. All other work not specifically mentioned in the measurement and payment sections identified below shall be considered incidental to the work performed and merged into the various unit and lump sum prices, unless specifically requested by the City in the Contract Task Order. Payment for work under one item will not be paid for under another item.
- E. The City reserves the right to make changes should unforeseen conditions necessitate such changes. Where work is on a unit price basis, the actual quantities occasioned by such changes shall govern the compensation.

#### **1.07 MEASUREMENT FOR PAYMENT**

- A. Measurement for payment will be at the Lump Sum or Unit Price as stipulated in the Schedule of Values for the items listed below. Payment shall be considered full compensation for furnishing all labor, materials, tools, and equipment to complete the work specified.
  1. MOBILIZATION AND DEMOBILIZATION
    - a. Payment for MOBILIZATION AND DEMOBILIZATION shall be for preparatory work and operations performed by the Contractor including, but not limited to, those necessary for the movement of its personnel, equipment, supplies and incidentals to and from the project site; for premiums on bonds and insurance for the project, for other work and operations which it must perform or costs the Contractor may incur before beginning production work on the various items on the project site, and for removal of personnel, equipment, supplies, and other incidentals from the site. If a job trailer or sanitation facilities are required and not able to be provided by the City with on-site facilities, the Contractor will provide them under item Labor and Materials at Cost Plus
    - b. MOBILIZATION AND DEMOBILIZATION will be paid at the Lump Sum price listed in the Contract Task Order schedule of values. Incremental payment shall be made as agreed upon by the City and the Contractor.

## **DIVISION 01 – GENERAL REQUIREMENT**

### **SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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2. FURNISH AND INSTALL 3-5/8 INCH WIDE 20-GAUGE STEEL STUD WALL UP TO 14-FEET HIGH
  - a. Payment for FURNISH AND INSTALL 3-5/8 INCH WIDE 20-GAUGE STEEL STUD WALL UP TO 14-FEET HIGH shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of 20-Gauge Steel Stud Wall Up To 14-Foot High, including all bracing. Gypsum board, insulation and painting will be furnished under other bid items.
  - b. FURNISH AND INSTALL 3-5/8 INCH WIDE 20-GAUGE STEEL STUD WALL UP TO 14-FEET HIGH will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement will be made for wall square footage with no deduction or addition for door or window framed openings. Width and height dimensions will be rounded up to the nearest half foot and the total rounded up to the nearest square foot. (Example: 111 foot – 4-inch by 8-foot – 2-inch wall would equal 948 square feet.)
3. FURNISH AND INSTALL 3-5/8 INCH WIDE 16-GAUGE STEEL STUD WALL TALLER THAN 14-FEET HIGH
  - a. Payment for FURNISH AND INSTALL 3-5/8 INCH WIDE 16-GAUGE STEEL STUD WALL TALLER THAN 14-FEET HIGH shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of 20-Gauge Steel Stud Wall Up To 14-Foot High, including all bracing. Gypsum board, insulation and painting will be furnished under other bid items.
  - b. FURNISH AND INSTALL 3-5/8 INCH WIDE 16-GAUGE STEEL STUD WALL TALLER THAN 14-FEET HIGH will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement will be made for wall square footage with no deduction or addition for door or window framed openings. Width and height dimensions will be rounded up to the nearest half foot and the total rounded up to the nearest square foot. (Example: 111 foot – 4-inch by 8-foot – 2-inch wall would equal 948 square feet.)
4. FURNISH AND INSTALL 5/8-INCH TYPE X GYPSUM WALL BOARD INCLUDING LEVEL IV TAPE AND FINISH
  - a. Payment for FURNISH AND INSTALL 5/8-INCH TYPE X GYPSUM WALL BOARD INCLUDING LEVEL IV TAPE AND FINISH shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of 5/8-Inch Type X Gypsum Wall Board Including Level IV Tape.
  - b. FURNISH AND INSTALL 5/8-INCH TYPE X GYPSUM WALL BOARD INCLUDING LEVEL IV TAPE AND FINISH will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement will be made for wall square footage with no deduction or addition for door or window framed openings. Width and height dimensions will be rounded up to the nearest half foot and the total rounded up to the nearest square foot. (Example: 111 foot – 4-inch by 8-foot – 2-inch wall would equal 948 square feet on one side of new wall. Should both sides of the wall require gypsum wall board then the total would be 1,896 square feet. If a two hour wall is ordered it would be 1,896 square feet x 2 for a double lap fire wall for one side.)



## **DIVISION 01 – GENERAL REQUIREMENT**

### **SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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5. FURNISH AND INSTALL SOUND BATT INSULATION IN 3-5/8 INCH STUD WALL
  - a. Payment for FURNISH AND INSTALL SOUND BATT INSULATION IN 3-5/8 INCH STUD WALL shall be full compensation for for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of 3-5/8-inch Stud Wall.
  - b. FURNISH AND INSTALL SOUND BATT INSULATION IN 3-5/8 INCH STUD WALL will be paid out paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement will be made for wall square footage with no deduction or addition for door or window framed openings. Width and height dimensions will be rounded up to the nearest half foot and the total rounded up to the nearest square foot. (Example: 111 foot – 4-inch by 8-foot – 2-inch wall would equal 948 square feet.)
6. FURNISH AND INSTALL PAINT
  - a. Payment for FURNISH AND INSTALL PAINT shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install paint.
  - b. FURNISH AND INSTALL PAINT will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement will be made for wall square footage with no deduction or addition for door or window framed openings. Width and height dimensions will be rounded up to the nearest half foot and the total rounded up to the nearest square foot. (Example: 111 foot – 4-inch by 8-foot – 2-inch wall would equal 948 square feet.)
7. FURNISH AND INSTALL 3-FOOT X 7-FOOT STEEL DOOR FRAME INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL 3-FOOT X 7-FOOT STEEL DOOR FRAME INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of a 3-foot by 7-foot steel door frame into new construction.
  - b. FURNISH AND INSTALL 3-FOOT X 7-FOOT STEEL DOOR FRAME INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each 3-foot by 7-foot steel door frame installed into new construction.
8. FURNISH AND INSTALL 4-FOOT 6-INCH X 7-FOOT STEEL DOOR FRAME WITH 1-FOOT 6-INCH SIDELIGHT INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL 4-FOOT 6-INCH X 7-FOOT STEEL DOOR FRAME WITH 1-FOOT 6-INCH SIDELIGHT INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of a 4-foot 6-inch by 7-foot steel door frame into new construction.
  - b. FURNISH AND INSTALL 4-FOOT 6-INCH X 7-FOOT STEEL DOOR FRAME WITH 1-FOOT 6-INCH SIDELIGHT INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each 4-foot 6-inch by 7-foot steel door frame installed into new construction.

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9. FURNISH AND INSTALL (DOUBLE) 6-FOOT X 7-FOOT STEEL DOOR FRAME INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL (DOUBLE) 6-FOOT X 7-FOOT STEEL DOOR FRAME INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of a (double) 6-foot by 7-foot steel door frame into new construction.
  - b. FURNISH AND INSTALL (DOUBLE) 6-FOOT X 7-FOOT STEEL DOOR FRAME INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each (double) 6-foot by 7-foot steel door frame installed into new construction.
10. FURNISH AND INSTALL RIFT CUT RED OAK WITH CLEAR PRE-FINISH 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL RIFT CUT RED OAK WITH CLEAR PRE-FINISH 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of a rift cut, red oak with clear pre-finish 3-foot by 7-foot door into new construction.
  - b. FURNISH AND INSTALL RIFT CUT RED OAK WITH CLEAR PRE-FINISH 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each rift cut, red oak with clear pre-finish 3-foot by 7-foot door installed into new construction.
11. FURNISH AND INSTALL RIFT CUT RED OAK WITH CLEAR PRE-FINISH WITH RELIGHT 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL RIFT CUT RED OAK WITH CLEAR PRE-FINISH WITH RELIGHT 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of a rift cut red oak, with clear prefinish with relight 3-foot by 7-foot door into new construction.
  - b. FURNISH AND INSTALL RIFT CUT RED OAK WITH CLEAR PRE-FINISH WITH RELIGHT 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each rift cut red oak, with clear prefinish with relight 3-foot by 7-foot door installed into new construction.

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12. FURNISH AND INSTALL RIFT CUT, RED OAK STAINED TO MATCH ADJACENT DOORS, 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL RIFT CUT, RED OAK STAINED TO MATCH ADJACENT DOORS, 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of a rift cut red oak stained to match adjacent doors, 3-foot by 7-foot door into new construction.
  - b. FURNISH AND INSTALL RIFT CUT, RED OAK STAINED TO MATCH ADJACENT DOORS, 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the schedule of values. Measurement will be made for each rift cut red oak stained to match adjacent doors 3-foot by 7-foot door installed into new construction.
13. FURNISH AND INSTALL RIFT-CUT, RED OAK STAINED TO MATCH ADJACENT DOORS WITH RELIGHT, 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL RIFT-CUT, RED OAK STAINED TO MATCH ADJACENT DOORS WITH RELIGHT, 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of a rift cut red oak stained to match adjacent doors with relight 3-foot by 7-foot door into new construction.
  - b. FURNISH AND INSTALL RIFT-CUT, RED OAK STAINED TO MATCH ADJACENT DOORS WITH RELIGHT 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each rift cut red oak stained to match adjacent doors with relight 3-foot by 7-foot door installed into new construction.
14. FURNISH AND INSTALL STEEL 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL STEEL 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of a steel 3-foot by 7-foot door with factory finish into new construction.
  - b. FURNISH AND INSTALL STEEL 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each steel 3-foot by 7-foot door with factory finish installed into new construction.

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15. FURNISH AND INSTALL STEEL 3-FOOT X 7 FOOT DOOR WITH RELIGHT INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL STEEL 3-FOOT X 7 FOOT DOOR WITH RELIGHT INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for procurement and installation of a steel 3-foot by 7-foot door with relight into new construction.
  - b. FURNISH AND INSTALL STEEL 3-FOOT X 7 FOOT DOOR WITH RELIGHT INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each steel 3-foot by 7-foot door with relight installed into new construction.
16. FURNISH AND INSTALL HW1 GROUP (PASSAGE DOORS / CONFERENCE ROOM) DOOR HARDWARE INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL HW1 GROUP (PASSAGE DOORS / CONFERENCE ROOM) DOOR HARDWARE INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Hardware Group 1 door hardware into new construction.
  - b. FURNISH AND INSTALL HW1 GROUP (PASSAGE DOORS / CONFERENCE ROOM) DOOR HARDWARE INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install Hardware Group 1 door hardware installed into new construction.
17. FURNISH AND INSTALL HW2 GROUP (OFFICE DOORS LOCK FROM INSIDE) DOOR HARDWARE INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL HW2 GROUP (OFFICE DOORS LOCK FROM INSIDE) DOOR HARDWARE INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Hardware Group 2 door hardware into new construction.
  - b. FURNISH AND INSTALL HW2 GROUP (OFFICE DOORS LOCK FROM INSIDE) DOOR HARDWARE INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install Hardware Group 2 door hardware installed into new construction.
18. FURNISH AND INSTALL HW3 GROUP (PUSH / PULL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL HW3 GROUP (PUSH / PULL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Hardware Group 3 door hardware into new construction.
  - b. FURNISH AND INSTALL HW3 GROUP (PUSH / PULL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install Hardware Group 3 door hardware installed into new construction.

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19. FURNISH AND INSTALL HW4 GROUP (SINGLE ACCESS CONTROL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND INSTALL HW4 GROUP (SINGLE ACCESS CONTROL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Hardware Group 4 door hardware into new construction.
  - b. FURNISH AND INSTALL HW4 GROUP (SINGLE ACCESS CONTROL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install Hardware Group 4 door hardware installed into new construction.
20. FURNISH AND INSTALL HW5 GROUP (DOUBLE DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND HW5 GROUP (DOUBLE DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Hardware Group 5 door hardware into new construction.
  - b. FURNISH AND INSTALL HW5 GROUP (DOUBLE DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install Hardware Group 5 door hardware installed into new construction.
21. FURNISH AND INSTALL HW6 GROUP (DOUBLE ACCESS CONTROL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION
  - a. Payment for FURNISH AND HW6 GROUP (DOUBLE ACCESS CONTROL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Hardware Group 6 door hardware into new construction.
  - b. FURNISH AND INSTALL HW6 GROUP (DOUBLE ACCESS CONTROL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install Hardware Group 6 door hardware installed into new construction.
22. FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH DRAWERS
  - a. Payment for FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH DRAWERS shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install cabinet base with drawers for installation into new construction.
  - b. FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH DRAWERS will be paid out per lineal foot (LF) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install cabinet base with drawers installed into new construction.

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#### **23. FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH DOORS**

- a. Payment for FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH DOORS shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install cabinet base with doors for installation into new construction.
- b. FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH DOORS will be paid out per lineal foot (LF) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install cabinet base with doors installed into new construction.

#### **24. FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH SHELF**

- a. Payment for FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH SHELF shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install cabinet base with doors for installation into new construction.
- b. FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH SHELF will be paid out per lineal foot (LF) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install cabinet base with doors installed into new construction.

#### **25. FURNISH AND INSTALL FACTORY CASEWORK, P-LAM COUNTERTOP**

- a. Payment for FURNISH AND INSTALL FACTORY CASEWORK, P-LAM COUNTERTOP shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install p-lam countertop for installation into new construction.
- b. FURNISH AND INSTALL FACTORY CASEWORK, P-LAM COUNTERTOP will be paid out per lineal foot (LF) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install p-lam countertop installed into new construction.

#### **26. FURNISH AND INSTALL FACTORY CASEWORK, SOLID SURFACE COUNTERTOP**

- a. Payment for FURNISH AND INSTALL FACTORY CASEWORK, SOLID SURFACE COUNTERTOP shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install corian countertop for installation into new construction.
- b. FURNISH AND INSTALL FACTORY CASEWORK, SOLID SURFACE COUNTERTOP will be paid out per lineal foot (LF) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install corian countertop installed into new construction.

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27. FURNISH AND INSTALL 2-FOOT X 2-FOOT ACOUSTICAL CEILING GRID SYSTEM
- a. Payment for FURNISH AND INSTALL 2-FOOT X 2-FOOT ACOUSTICAL CEILING GRID SYSTEM shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install 2-Foot x 2-Foot Acoustical Ceiling Grid System.
  - b. FURNISH AND INSTALL 2-FOOT X 2-FOOT ACOUSTICAL CEILING GRID SYSTEM will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement shall be determined using the square foot of the area, measured and rounded up to the nearest square foot. (Example: 30-foot 6-inch x 30-foot 6-inch room would equal 931 square feet).
28. FURNISH AND INSTALL 2-FOOT X 4-FOOT ACOUSTICAL CEILING GRID SYSTEM
- a. Payment for FURNISH AND INSTALL 2-FOOT X 4-FOOT ACOUSTICAL CEILING GRID SYSTEM shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install 2-Foot x 4-Foot Acoustical Ceiling Grid System.
  - b. FURNISH AND INSTALL 2-FOOT X 4-FOOT ACOUSTICAL CEILING GRID SYSTEM will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement shall be determined using the square foot of the area, measured and rounded up to the nearest square foot. (Example: 30-foot 6-inch x 30-foot 6-inch room would equal 931 square feet).
29. FURNISH AND INSTALL 2-FOOT X 2-FOOT CEILING TILE
- a. Payment for FURNISH AND INSTALL 2-FOOT X 2-FOOT CEILING TILE shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install 2-Foot x 2-Foot Ceiling Tile.
  - b. FURNISH AND INSTALL 2-FOOT X 2-FOOT CEILING TILE will be paid out at the per each (EA) price listed in the Contract Task Order schedule of values. Measurement shall be determined by taking required ceiling tile area divided by the area of one tile (4 square feet) and rounded up to the nearest whole tile.
30. FURNISH AND INSTALL 2-FOOT X 4-FOOT CEILING TILE
- a. Payment for FURNISH AND INSTALL 2-FOOT X 4-FOOT CEILING TILE shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install 2-Foot x 4-Foot Ceiling Tile.
  - b. FURNISH AND INSTALL 2-FOOT X 4-FOOT CEILING TILE will be paid out at the per each (EA) price listed in the Contract Task Order schedule of values. Measurement shall be determined by taking required ceiling tile area divided by the area of one tile (8 square feet) and rounded up to the nearest whole tile.

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#### **31. FURNISH AND INSTALL SHEET VINYL FLOORING**

- a. Payment for FURNISH AND INSTALL SHEET VINYL FLOORING shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Furnish and Install Sheet Vinyl.
- b. FURNISH AND INSTALL SHEET VINYL FLOORING will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement shall be determined using the square foot of the area, measured and rounded up to the nearest square foot. (Example: 30-foot 6-inch x 30-foot 6-inch room would equal 931 square feet).

#### **32. FURNISH AND INSTALL RUBBER BASE**

- a. Payment for FURNISH AND INSTALL RUBBER BASE shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Furnish and Install Rubber Base.
- b. FURNISH AND INSTALL RUBBER BASE will be paid out at the per lineal foot (LF) price listed in the Contract Task Order schedule of values. Measurement shall be determined using the quantity of base used. (Example: 30-foot 6-inch x 15-foot 6-inch inside dimension of a room would be paid at 92 lineal feet.)

#### **33. FURNISH AND INSTALL FLOORING**

- a. Payment for FURNISH AND INSTALL FLOORING shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Furnish and Install Flooring.
- b. FURNISH AND INSTALL FLOORING will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement shall be determined using the quantity of base used. (Example: 30-foot 6-inch x 15-foot 6-inch inside dimension of a room would be paid at 92 lineal feet).
- c. Costs associated with material required to install flooring per manufacturer's recommendations, including but not limited to: adhesives, carpet pad, vapor barrier, nail strips, trim/molding/stair nosing, etc. shall be incidental to this item.

#### **34. FURNISH AND INSTALL CERAMIC FLOOR OR WALL TILE**

- a. Payment for FURNISH AND INSTALL CERAMIC FLOOR OR WALL TILE shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Ceramic Floor or Wall Tile, including the mortar bed, and floor or wall preparation.
- b. FURNISH AND INSTALL CERAMIC FLOOR OR WALL TILE will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Measurement shall be determined by the quantity of ceramic tile used, including cutting and trim (waste) and using the square foot of the area, measured and rounded to the next square foot. (Example: 30-foot 6-inch x 21-foot 4-inch room would be paid at 651 square feet.)



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#### **35. POLISH CONCRETE**

- a. Payment for POLISH CONCRETE shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required for floor preparation, grinding and polishing of existing concrete floor.
- b. POLISH CONCRETE will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values. Cut or shine levels as shown on the Finish Schedule, or as directed by the City Project Manager. For bidding purposes, assume Grade 2 cut level and Class 2 shine level.

#### **36. FURNISH AND INSTALL TOILET PARTITIONS CEILING MOUNT**

- a. Payment for FURNISH AND INSTALL TOILET PARTITIONS CEILING MOUNT shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Toilet Partitions Ceiling Mount.
- b. FURNISH AND INSTALL TOILET PARTITIONS CEILING MOUNT will be paid out at the per lineal foot (LF) price listed in the Contract Task Order schedule of values. Measurement shall be rounded up to the nearest lineal foot. (Example: 6-foot 2-inch partition and a 3-foot 2-inch door would be rounded up to 10 feet.)

#### **37. FURNISH AND INSTALL URINAL SCREEN**

- a. Payment for FURNISH AND INSTALL URINAL SCREEN shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Urinal Screen.
- b. FURNISH AND INSTALL URINAL SCREEN will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install a urinal screen.

#### **38. FURNISH AND INSTALL ADA TOILET ACCESORIES**

- a. Payment for FURNISH AND INSTALL ADA TOILET ACCESORIES shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install ADA Toilet Accesories.
- b. FURNISH AND INSTALL ADA TOILET ACCESORIES will be paid out per each (EA) price listed in the Contract Task Order schedule of values. Measurement will be made for each to furnish and install ADA Toilet Accesories.

#### **39. FURNISH AND INSTALL EPOXY FLOORING**

- a. Payment for FURNISH AND INSTALL EPOXY FLOORING shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Epoxy Flooring, including floor preparation and epoxy application.
- b. FURNISH AND INSTALL EPOXY FLOORING will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values.

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#### **40. FURNISH AND INSTALL CLOSED CELL SPRAY FOAM**

- a. Payment for FURNISH AND INSTALL CLOSED CELL SPRAY FOAM shall be full compensation for the cost of labor, materials, tools, equipment, and incidentals required to furnish and install Closed Cell Spray Foam.
- b. FURNISH AND INSTALL CLOSED CELL SPRAY FOAM will be paid out at the per square foot (SF) price listed in the Contract Task Order schedule of values.

#### **41. ON-SITE WORK HOURS FOR LABORER**

- a. Payment for ON-SITE WORK HOURS FOR LABORER shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
- b. ON-SITE WORK HOURS FOR LABORER will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the Contract Task Order schedule of values. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

#### **42. ON-SITE WORK HOURS FOR JOURNEY-LEVEL CARPENTER**

- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL CARPENTER shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
- b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL CARPENTER will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the Contract Task Order schedule of values. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

#### **43. ON-SITE WORK HOURS FOR JOURNEY-LEVEL PAINTER**

- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL PAINTER shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
- b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL PAINTER will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the Contract Task Order schedule of values. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

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#### **44. ON-SITE WORK HOURS FOR JOURNEY-LEVEL DRY-WALL TAPER**

- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL DRY-WALL TAPER shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
- b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL DRY-WALL TAPER will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the Contract Task Order schedule of values. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

#### **45. ON-SITE WORK HOURS FOR INSULATION APPLICATOR**

- a. Payment for ON-SITE WORK HOURS FOR INSULATION APPLICATOR shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
- b. ON-SITE WORK HOURS FOR INSULATION APPLICATOR will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the Contract Task Order schedule of values. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

#### **46. ON-SITE WORK HOURS FOR JOURNEY-LEVEL SHEET METAL WORKER**

- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL SHEET METAL WORKER shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
- b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL SHEET METAL WORKER will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the Contract Task Order schedule of values. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

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47. ON-SITE WORK HOURS FOR JOURNEY-LEVEL REFRIGERATION MECHANIC
- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL REFRIGERATION MECHANIC shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
  - b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL REFRIGERATION MECHANIC will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the Contract Task Order schedule of values. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.
48. ON-SITE WORK HOURS FOR JOURNEY-LEVEL PLUMBER
- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL PLUMBER shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
  - b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL PLUMBER will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the Contract Task Order schedule of values. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.
49. ON-SITE WORK HOURS FOR JOURNEY-LEVEL TELECOMMUNICATION TECHNICIAN
- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL TELECOMMUNICATION TECHNICIAN shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
  - b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL TELECOMMUNICATION TECHNICIAN will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the bid. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

## **DIVISION 01 – GENERAL REQUIREMENT**

### **SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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#### **50. ON-SITE WORK HOURS FOR JOURNEY-LEVEL ELECTRIAN**

- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL ELECTRIAN shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
- b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL ELECTRIAN will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the bid. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

#### **51. ON-SITE WORK HOURS FOR JOURNEY-LEVEL ROOFER**

- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL ROOFER shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
- b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL ROOFER will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the bid. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

#### **52. ON-SITE WORK HOURS FOR JOURNEY-LEVEL HVAC TECHNICIAN**

- a. Payment for ON-SITE WORK HOURS FOR JOURNEY-LEVEL HVAC TECHNICIAN shall be full compensation for all costs including labor, miscellaneous equipment, materials, and tools for labor hours worked on-site. Incidental work includes travel and coordination. Material for work under this bid item will be furnished using the the Furnished Material at Cost Plus bid item.
- b. ON-SITE WORK HOURS FOR JOURNEY-LEVEL HVAC TECHNICIAN will be paid out per the hour (HR) for labor work that will be estimated and agreed upon based on hours and hourly price per the bid. Additional work hour costs may also be used when approved by the City Project Manager or representative for site specific conditions. The minimum quantity of work hours allowed will be four (4) hours.

**DIVISION 01 – GENERAL REQUIREMENT**

**SECTION 01 20 00 – PRICE AND PAYMENT PROCEDURES**

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53. LABOR AND MATERIALS AT COST PLUS

- a. Payment for LABOR AND MATERIALS AT COST PLUS shall include all General Contractor and/or Subcontractor labor, materials, tools, equipment, and incidentals required to perform the work that were not included in the above agreed upon bid items. LABOR AND MATERIALS AT COST PLUS shall be agreed upon by the City for each Contract Task Order.
- b. LABOR AND MATERIALS AT COST PLUS will be paid out per each (EA) for labor hours, and material costs. Invoiced costs will be paid according to a detailed breakdown of quantities and unit rates submitted with the marked up percent shown separately as agreed upon per the Contract Bid Form. All LABOR AND MATERIALS AT COST PLUS shall be approved by the City prior to commencement of any work.

54. FORCE ACCOUNT, PER LUMP SUM

- a. Payment for FORCE ACCOUNT, PER LUMP SUM shall be made for change order items that are added to the contract, which shall be treated as a decuct to the force account remaining.
- b. LABOR AND MATERIALS AT COST PLUS will be paid in accordance with Section 1-09.6 of the latest edition of the Standard Specifications for Road, Bridge and Municipal Construction of the Washington State Department of Transportation as modified by Force Account Work in the Special Provisions or on negotiated lump sum or unit price change orders added to the contract.

**PART 2 - PRODUCTS**

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**NOT USED**

**PART 3 - EXECUTION**

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**NOT USED**

**END OF SECTION**

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 25 00 – SUBSTITUTION PROCEDURES**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### **1.02 QUALITY ASSURANCE**

- A. This Contract is based upon products and standards established in Contract Documents without consideration of proposed substitutions.
- B. Products specified define standards of quality, type, function, dimension, appearance, and performance required.
- C. The City will consider proposals for substitutions of materials, equipment, and methods only when such proposals are accompanied by full and complete technical data as required by the City to evaluate the proposed substitution.
- D. Do not substitute materials, equipment, or methods unless such substitution has been specifically accepted and approved in writing for this work by the City.

##### **1.03 TIME OF SUBSTITUTION REQUESTS**

- A. Make requests for substitutions during the bidding period. Written requests by bidders for substitutions may be considered if received by the City at least 14 days prior to the bid submittal deadline. The City may, in its sole discretion, defer the consideration of a proposed substitution until after the Contract award.
- B. Request each substitution in accordance with the applicable provisions of Section 01 33 00 – Submittal Procedures. Describe the proposed substitution in its entirety including the name of the material or equipment, drawings, catalog cuts, performance or test data and all other information required for evaluation. Include a statement noting all changes required in adjoining, dependent, or interrelated work necessitated by the incorporation of the proposed substitution. The bidder/Contractor bears the burden of proof to show that the proposed substitution meets or exceeds the required function and is equal or superior to the specification.
- C. The City may require that samples be submitted or demonstration made prior to approval. The City's decision of approval or disapproval of a proposed substitution shall be final.
- D. Approval of substitutions will be made by addenda. When, in the sole opinion of the City, the product is equivalent, in all respects to the product specified it will be approved subject to Contract requirements and the Contractor's assumption of all responsibility therefore.
- E. After written approval, this submission shall become a part of the Contract, and may not be deviated from except upon written approval of the City.
- F. Catalog data for equipment approved by the City does not in any case supersede the Contract Documents. The approval by the City shall not relieve the Contractor from responsibility for deviations from drawings or these specifications, unless the Contractor has, in writing call the City's attention to such deviations at the time of the submission, nor shall it relieve the Contractor from responsibility for errors of any sort in the items submitted. The Contractor shall check the work described by the catalog data with the Contract Documents for deviations and errors.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 25 00 – SUBSTITUTION PROCEDURES**

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- G. It shall be the responsibility of the Contractor to insure that items to be furnished fit the space available. Make necessary field measurements to ascertain space requirements, including those for connections and shall order such sizes and shapes of equipment that the final installation shall suit the true intent and meaning of the drawings and specifications.
- H. When equipment requiring different arrangement of connections for those shown as approved is used, it shall be the responsibility of the Contractor to install the equipment to operate properly, and in harmony with the intent on the drawings and these specifications, and to make all changes in the work required by the different arrangement of connections together with any cost of redesign necessitated thereby, all at the Contractor's expense.
- I. Where the phrase "or equivalent" or "or equal" occurs in the Contract Documents, do not assume that material, equipment, or methods will be approved as equal by the City unless the item has specifically been approved as a substitution for this Work by the City.
- J. The decision of the City shall be final.

#### **1.04 SUBSTITUTION PROCEDURES**

- A. Limit each request to one proposed substitution.
- B. Submit substitution request on a required form complete with attachments necessary to full document proposed substitution.
- C. Document each request with supporting data substantiating compliance of the proposed substitution with Contract Documents, including:
  - 1. Manufacturer's name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
  - 2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance and other pertinent characteristics.
  - 3. Reference to article and paragraph numbers in Specifications section.
  - 4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
  - 5. Changes required in other Work.
  - 6. Availability of maintenance service and source of replacement parts, as applicable.
  - 7. Certified test data to show compliance with performance characteristics specified.
  - 8. Samples, when applicable or requested at no cost to the City.
  - 9. Other information as necessary to assist the City's evaluations.
- D. A request for substitution constitutes a representation that the Contractor has:
  - 1. Investigated proposed product and determined that it is equal or superior in all respects to specified product.
  - 2. Provided identical or better warranty as required for the specified product.
  - 3. Coordinated installation and make changes to other Work that may be required.
  - 4. Waived claims for additional costs or time extension which may subsequently become apparent.



## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 25 00 – SUBSTITUTION PROCEDURES**

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5. Certified that proposed product will not affect or delay Construction Progress Schedule.
  6. Paid or agreed to pay for changes to design, including architectural or engineering design, detailing, and construction costs caused by the requested substitution.
- E. Substitutions will not be considered when:
1. Indicated or implied on shop drawings or product data submittals without formal request submitted in accordance with this section.
  2. Submittal for substitution request has not been reviewed and approved by the Contractor.
  3. Acceptance will require substantial revision of Contract Documents or other items of the work as determined by the City.
  4. Submittal for substitution request does not include point-by-point comparison of proposed substitution with specified product.

### **PART 2 - PRODUCTS**

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**NOT USED**

### **PART 3 - EXECUTION**

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**NOT USED**

<b>END OF SECTION</b>
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## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 30 00 – ADMINISTRATIVE REQUIREMENTS

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 SUBMITTALS

- A. Personnel list: For principal staff assignments, include areas of responsibility, addresses, and phone numbers. Include back-up personnel.
- B. Coordination drawings, as required per each Contract Task Order.
- C. Daily Reports: Submit at weekly intervals.

##### 1.03 PRECONSTRUCTION MEETING

###### A. Notification:

Following the notification to proceed for each Contract Task Order, the City will notify the Contractor of a time, date, and location for a Preconstruction meeting.

###### B. Location:

Pre-construction meeting will either be at the jobsite, or virtual at the discretion of the City. For bidding purposes assume that the preconstruction meeting will be at the following location:

Tacoma Public Utilities Administration Building  
3628 South 35th Street  
Tacoma, WA 98409

###### C. Attendance:

The following may be requested to attend the preconstruction meeting:

- 1. City Representatives:
  - a. Project Manager
  - b. Architects and Engineers
  - c. Consultants
- 2. Contractor's Representatives:
  - a. Project Manager (Superintendent)
  - b. Contract Administrator
  - c. Major Subcontractors
  - d. Project Engineer

###### D. Agenda:

- 1. Distribution of Contract Documents
- 2. Designation of project personnel
- 3. Procedures and processing of field decisions, submittals, and substitutions, applications for payment, proposal request(s), change orders, record drawings and contract closeout.
- 4. Scheduling
- 5. Work hours
- 6. Responsibility for temporary facilities and controls
- 7. Construction quality control procedures

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 30 00 – ADMINISTRATIVE REQUIREMENTS

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8. Safety
  9. Security
  10. Site access, traffic control, parking availability
- E. Meeting Minutes: Minutes of the pre-construction meeting will be sent to the contractor and all meeting attendees. Recipients of the pre-construction meeting minutes will be required to direct any comments or changes to these minutes to the project manager or representative within seven (7) days from the date of receipt. If no changes or comments are received within the seven (7) days, the meeting minutes will be kept by the project manager or representative and become part of the project file

#### 1.04 WEEKLY SITE MEETINGS

- A. Weekly site meetings will be scheduled by the City project manager or representative at the project site for each Contract Task Order.
- B. Location: Weekly site meetings will take place at the Contract Task Order project site.
- C. Attendance:
1. City Representatives:
    - a. Project Manager or representative
    - b. Architects and Engineers
    - c. Consultants
  2. Contractor's Representatives:
    - a. Project Manager (Superintendent)
    - b. Major Subcontractors
    - c. Project Engineer
- D. Weekly Meeting Agenda:
1. Safety Report
  2. Review minutes of previous meeting minutes
  3. Review of Work progress
  4. Look Ahead Schedule: Provide three (3) week look ahead simplified bar chart schedule coordinated and interfaced with the project schedule.
  5. Coordinate issues, field observations, problems and decisions.
  6. Identification of problems that impede, will impede, or present the potential for impeding planned progress. Identify corrective measures to regain projected schedule.
  7. Review non-conforming work and status of correction.
  8. Review of submittals schedule and status of submittals.
  9. Review off-site fabrications and delivery schedules.
  10. Review Request for Information status
  11. Review Contract Modification status, including any effect on coordination and progress schedule.
  12. Maintenance of quality and work standards.
  13. Other business related to the Work.
- E. Minutes of the weekly site meeting will be sent to the contractor and all meeting attendees. Recipients of the weekly site meeting minutes will be required to direct any comments or changes to these minutes to the project manager or representative within three (3) days from the date of receipt. If no changes or comments are received within the three (3) days, the meeting minutes will be kept by the project manager or representative and become part of the project file.

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 30 00 – ADMINISTRATIVE REQUIREMENTS

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#### 1.05 MAJOR MILESTONE MEETINGS

- A. A. Major milestone meetings will be determined by the City project manager or representative prior to each major phase or section of work; prior to installing major pieces of equipment. The City project manager or representative will notify the Contractor of all required additional site meetings during the pre-construction meeting. It is the Contractor's responsibility to notify the City and schedule the meetings five (5) working days prior to starting construction on major phase or section of work; prior to installing major pieces of equipment.
- B. B. Location: Major milestone meetings will either be at the Contract Task Order project site, or virtual as determined by the City's project manager or representative.
- C. Attendance:
  - 1. City Representatives:
    - a. Project Manager or representative
    - b. Architects and Engineers
    - c. Consultants
  - 2. Contractor's Representatives:
    - a. Project Manager (Superintendent)
    - b. Major Subcontractors
    - c. Project Engineer
- D. Agenda
  - 1. Scheduling
  - 2. Coordination
  - 3. Interface requirements
  - 4. Off-site fabrication
  - 5. Access requirements
  - 6. Site utilization
  - 7. Quality standards
  - 8. Other business related to the Work.
- E. Minutes of the Major Milestone meeting will be sent to the contractor and all meeting attendees. Recipients of the Major Milestone meeting minutes will be required to direct any comments or changes to these minutes to the project manager or representative within three (3) days from the date of receipt. If no changes or comments are received within the three (3) days, the meeting minutes will be kept by the project manager or representative and become part of the project file.

#### 1.06 COORDINATION MEETINGS

- A. During construction it is likely that coordination will be required between the Contractor with other major general contractors and City crews performing work in the vicinity of the project.
- B. Notification:

Coordination meetings will be determined by the City project manager or representative as determined by other contracts and work ongoing or planned.
- C. Attendance:
  - 1. City Representatives:
    - a. Project Manager or representative

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 30 00 – ADMINSTRATIVE REQUIREMENTS**

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- b. City stakeholders
  - c. Architects and Engineers
  - d. Consultants
2. Contractor's Representatives:
- a. Project Manager (Superintendent)
  - b. Major Subcontractors
  - c. Project Engineer
- D. Agenda:
- 1. Scheduling
  - 2. Coordination
  - 3. Disruptions to work areas adjacent to the Contract Task Order project, and other activities which must be coordinated with the Contractor.
  - 4. Loading and unloading of materials
  - 5. Affects to building systems
  - 6. Yard usage
  - 7. Outages that may be required
  - 8. Other business related to the Work.
- E. Minutes of the Coordination meeting will be sent to the contractor and all meeting attendees. Recipients of the Coordination meeting minutes will be required to direct any comments or changes to these minutes to the project manager or representative within three (3) days from the date of receipt. If no changes or comments are received within the three (3) days, the meeting minutes will be kept by the project manager or representative and become part of the project file.

#### **1.07 BASELINE PROJECT SCHEDULE**

A baseline project schedule shall be prepared and submitted at the pre-construction meeting. This schedule shall be maintained and updated as necessary to accurately reflect past progress and the most probable future progress.

#### **1.08 PERMITS**

- A. The City or City contracted Architect will make application to the applicable authorities for any required permits and shall pay for them ahead of pick-up by the contractor or pay at direct cost via Force Account with no contractor mark-up.
- B. The City will issue to the contractor a complimentary electrical permit at the Utility's Electrical Permit Counter for work within Tacoma Power's service area if required. Other electrical permits required by Washington State Labor and Industries (L&I), if needed, will be paid via Force Account with no contractor mark-up. Questions concerning this process shall be directed to the project manager or representative.

#### **1.09 DIVISION OF WORK**

- A. Materials furnished and installed by the Contractor:
  - 1. The Contractor shall furnish and pay for all necessary materials (except those specifically noted City-furnished) and shall provide all labor, tools, equipment and superintendent, and perform all work incidental to the completion of the project as required by this Contract Task Order in accordance with the Contract Documents, and instructions of the City's project manager or representative.
  - 2. Requests for substitutions or alternative materials shall be in accordance with specification Section 01 25 00 – Substitution Procedure.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 30 00 – ADMINSTRATIVE REQUIREMENTS**

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- B. City furnished Materials installed by the Contractor:
  - 1. The City may provide materials as directed by the City's project manager or representative.
  - 2. All material received by the Contractor from the City shall become the Contractors responsibility and the Contractor shall be liable for any materials lost or damaged after receipt.
  - 3. It shall be the responsibility of the Contractor to provide 48 hour notice prior to obtaining the City-furnished material from the Tacoma Power Warehouse, 3628 South 35th Street (rear), Tacoma Washington, between the hours of 10:00 a.m. and 3:00 p.m. on regular City working days with the Contractors own forces and equipment. All materials received by the Contractor shall become their responsibility and they shall be liable for any material lost or damaged after receipt.
- C. The Contractor shall give the City's project manager or representative an minimum of four (4) working days notice prior to requiring any work performed by the City.
- D. Items noted Not In Contract (NIC) on the drawings will be furnished and installed by the City before or concurrently with the work of this Contract Task Order, and are not included as part of this Contract Task Order.
- E. The Contractor shall be responsible for coordinating and schedule the work to be performed by the City so that is coincides with the Contractors work and schedule.

#### **1.10 HAZARDOUS MATERIALS**

- A. The City has tested areas throughout each of the facilities for hazardous materials. Some of these areas may be disturbed during construction and include hazardous materials.
- B. The City's project manager or representative and the Contractor will review the list of test areas prior to the start of work on any project to determine if hazardous materials have been found within the work area. If found, the contractor is required to follow all local, state, and federal laws pertaining to the disturbance, removal, handling, storing, transporting, and disposal of all materials deemed hazardous by law.
- C. All work shall be performed by workers certified by Washington State Department of Labor and Industries as having successfully completed a state approved training course. All work shall be in accordance with EPA Title 40 CFR and hazardous waste abatement will be performed under Force Account.

#### **1.11 CONTRACT CHANGES**

- A. The City has developed four (4) forms to facilitate and track communications with the contractor.
  - 1. Request for Information (RFI);
  - 2. Project manager or representative Change Directive (ECD);
  - 3. Proposal Request (PR);
  - 4. Change Order Proposal (COP).

These forms will be provided to the Contractor by the City's project manager or representative during the pre-construction meeting.

- B. A Request for Information (RFI) shall be used by the Contractor whenever a conflict occurs in the Contract Documents, insufficient or un-constructable detail(s) are shown on the drawings, or any other issue which should be documented arises. The City

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 30 00 – ADMINISTRATIVE REQUIREMENTS**

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- may also use the form to inquire on Contractor's methods, schedule or other issues not warranting more formal letter correspondence. The Contractor shall maintain the numbering system, and RFI's issued by the City will be unnumbered until delivered to the Contractor
- C. Project manager or representative Change Directive (ECD) will be used by the City to transmit new or revised drawings, issue additions or modifications to the Contract Task Order or furnish any other direction which should be documented. ECD's are effective immediately.
1. Should the Contractor believe that the ECD should result in either a change in cost or time for the project, they shall notify the City's project manager or representative, and submit a Change Order Proposal prior to the start of such work.
  2. A Change Order Proposal shall be submitted no later than seven (7) working days from receipt of ECD.
  3. In the event the City does not receive a Change Order Proposal from the contractor within seven (7) calendar days of the Contractor's receipt of a ECD from the City, the Contractor shall have no claim for extra cost or time or impacts attributable to the work required by the ECD.
  4. Upon establishing a cost agreeable by both the City and Contractor for the requested changes required by the ECD and COP, it is agreed and understood that the price reflected by the COP shall include all direct costs, indirect costs, and the Contractor's estimate of impacts to its work, including but not limited to delay impacts, and shall represent a full and final settlement of all issues pertaining to the Work required by the ECD, and work performed by the Contractor up to the date of the Change Order Proposal.
  5. ECD's will be numbered by the City
- D. Proposal Request (PR) shall be used by the City to request pricing on a possible change in plans or additional work.
1. The PR may also be used to request credits for deletion or changes in scope of work.
  2. The Contractor shall respond to such requests with a Change Order Proposal within seven (7) working days from receipt of PR unless more time has been agreed to.
  3. Requests are numbered by the City.
- E. A Change Order Proposal (COP) shall be used by the Contractor to respond to City issued PR, ECD's or when the Contractor believes that changed conditions or omitted, but necessary, work items exist.
1. The COP may be used for requested changes in cost or time of the contract.
  2. Whenever possible, the contractor shall submit in advance and in writing, a COP for changes in the scope of work and/or Task Order Contract amount.
  3. Each COP submitted to the City will be either accepted or rejected in writing by the City's project manager or representative prior to work commencing.
  4. When no agreement can be reached, the City may order extra work on force account.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 30 00 – ADMINSTRATIVE REQUIREMENTS**

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5. COPs shall be numbered by the Contractor, and, in the case of revision or resubmission of the same basic COP, the number shall be hyphenated with the letter “B”, “C”, etc.

#### **1.12 DIFFERING SITE CONDITION**

- A. Differing site conditions shall be administered in accordance with Section 1-04.7, and 1.09.11 of the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge and Municipal Construction M41-10,2024, except as stipulated in these Special and General Provisions.
- B. The Contractor shall have no claim for additional costs or work, if it fails to submit a written RFI to the City immediately upon encountering any differing site condition, conflicts in the plans, specifications, or constructability issues.
- C. The Contractor shall promptly, and before conditions are disturbed, notify the City’s project manager or representative or their field representative of problems with subsurface conditions at the site, problems or conflicts in the plans or specifications or problems on constructability.
- D. A written Request for Information (RFI) shall immediately be submitted by the Contractor when they believe such problems exist and direction is required from the City.
- E. The City’s project manager or representative shall promptly investigate the conditions, and if agreed upon with the Contractor, adjustment shall be made on the appropriate details in written response to the RFI. In addition the written response to the RFI the City’s project manager or representative may issue an ECD or PR.
- F. No claim by the contractor under this differing site condition shall be allowed except as agreed upon in writing with the project manager or representative.

#### **PART 2 - PRODUCTS**

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**NOT USED**

#### **PART 3 - EXECUTION**

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**NOT USED**

<b>END OF SECTION</b>
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## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### **1.02 CONSTRUCTION SCHEDULE**

- A. The Contractor shall prepare a construction schedule showing specific tasks, dates, and critical path necessary for completion of the project within the Contract Task Order time limits. A preliminary schedule will be submitted at the pre-construction meeting or at a minimum of ten (10) working days after the Contract Task Order Award. After review, if changes are required by the project manager or representative, resubmit required revised project schedule within five (5) working days. Upon acceptance by the City the schedule shall become the Project Construction Schedule.
- B. Prior to each weekly project meeting this Project Construction Schedule shall be reviewed and updated. All changes to the Project Construction Schedule of more than 3 working days shall be documented on the updated progress schedule and be submitted to the City in writing or electronic format (e-mailed). The Project Construction Schedule, as accepted by the City will be an integral part of the Contract Task Order and will establish interim completion dates for the various activities under the Contract Task Order.
- C. The Construction Project Schedule shall be a network analysis of the critical path method (CPM). The Construction Project Schedule shall identify the work clearly, showing the detailed items of work. The breakdown of work shall, at a minimum shall all the items identified in the Schedule of Values and significant design, manufacturing, construction, and installation activities. Submittals and long lead items shall be included and the relationship between the work items shall clearly show the starting dates and include all details of the work within the time frame shown.
- D. The Construction Project Schedule shall include sufficient time for cleaning, punch list review and completion of punch list items prior to the designated substantial Completion date.
- E. The Construction Project Schedule shall be used to justify time extension days requested by the Contractor. For additional days requested, the Construction Project Schedule shall be detailed enough to identify the work item(s) affected and relationship to the changed or added work.
- F. Should any activity not be completed by the stated schedule date, the City will have the right to require the Contractor to expedite completion of the activity by whatever means appropriate and necessary, without any additional compensation to the Contractor.

##### **1.03 ON-SITE DOCUMENTS**

- A. The Contractor shall maintain at the Project Site, in good order for ready reference by the City, one complete record copy of the Contract Documents, including the Addenda, Change Orders, working drawings, Progress Schedule, and other approved submittals. The Contractor shall generate and keep onsite all documents and reports required by the permit conditions.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION**

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- B. Contract record drawings shall be marked to record all changes made during construction. The Contract Task Order's record drawings shall be updated on a weekly basis and before elements of the Work are covered or hidden from view. After the completion of the work or portions of the work and before requesting final inspection, the record copy of the Drawings shall be given to the City. The City reserves the right to withhold progress payments until such time as the record drawings are brought current.

#### **1.04 DOCUMENTATION OF WEEKLY QUANTITIES**

The Contractor shall meet with the City's project manager or representative weekly to agree upon the quantities of materials or work completed during the week's work. Both parties shall initial the Project Weekly Quantities Report that shows there is an agreement (or lack of agreement) over the amount of work performed that week.

#### **PART 2 - PRODUCTS**

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##### **2.01 NOT USED**

#### **PART 3 - EXECUTION**

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##### **3.01 NOT USED**

<b>END OF SECTION</b>
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## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 33 00 – SUBMITTAL PROCEDURE**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

- A. The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.
- B. Individual submittals required in accordance with the pertinent sections of these specifications. Other submittals may be required during the course of the project and are considered part of the normal work to be completed under this Contract.

##### **1.02 SUBMITTAL LOG**

- A. The Contractor shall prepare and submit to the City project manager or representative, within ten (10) days after the Contract Task Order notice to proceed, a Submittal Log listing all submittals required by the Contract Task Order Contract documents, and the schedule showing estimated dates of submission, review, and approval.
- B. The Submittal Log shall be organized using the Construction Specifications Institute's (CSI) MasterFormat® list of specification division numbers, section numbers, and titles. Include the submittal number, item description or identification, submission and review schedule.

##### **1.03 COMPLIANCE**

- A. Submittals and shop drawings submitted to the City as specified herein are intended to show compliance with the contract documents. Signatures, corrections or comments made on submittals do not relieve the contractor from compliance with requirements of the drawings and specifications.
- B. Neither does acceptance or approval of submittals by signature add to or delete from any contract requirements resulting from these specifications regardless of the wording of the submittals. Submittals will not be reviewed or approved when the term "By Others" is used. Submittals are reviewed or approved for general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating their work with that of other contractors and agencies, and performing their work in a safe and satisfactory manner. A piece-meal of submittals shall not be accepted.
- C. Failure to indicate compliance with material or product specifications, or submission of incomplete submittals, shall be deemed as the Contractor's concurrence to furnish the exact materials specified by the contract documents, or when directed the materials and products specified by the Engineer.

#### **PART 2 - PRODUCTS**

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##### **2.01 SHOP DRAWINGS**

- A. Provide shop drawings to the City for approval. The City will not accept shop drawings that prohibit the City from making copies for its own use.
- B. Develop and provide detailed drawings in a manner identical to the requirements for shop drawings.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 33 00 – SUBMITTAL PROCEDURE**

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- C. Prepare shop drawings accurately and to a scale sufficiently large to indicate all pertinent features of the products and the method of fabrication, connection, erection, or assembly with respect to the work.
- D. All shop drawings shall be submitted to the City for approval, and shall be drawn on full-size (ANSI D) or half-scale sets on 11-inch by 17-inch, bond paper only. Electronic versions of the drawings shall be submitted in PDF format, and formatted to print on half-scale 11-inch by 17-inch paper.
- E. Unless approved otherwise by the City, submit the following
  - 1. Submit electronically in legible portable document format (PDF). Provide first-generation PDFs instead of scanned images. Provide up to six (6) paper copies in addition to the electronic copies if requested by the City.

#### **2.02 MANUFACTURERS' LITERATURE**

- A. Submit the manufacturer's original electronic issues of the literature in PDF format for approval. If requested by the City, submit up to two (2) paper copies of the manufacturer's literature.
- B. For catalog cuts or brochures, show the type, size, ratings, style, color, manufacturer, and catalog number of each item and be complete enough to provide for positive and rapid identification in the field. Submit catalog data in an orderly bound form, so not submit general catalogs or partial lists.

#### **2.03 SAMPLES**

- A. Submit the exact or precise article proposed to be furnished.
- B. Submit samples, color chips, finish styles, patterns, etc., in sufficient number as to provide the City with alternate choices.
- C. Aesthetic Characteristics: As required for selection of colors, finishes, patterns, and as required or requested to finalize selection process. Furnish full range of manufacturer's custom and standard selections. Where selection is specified, submit as required to show conformance to Contract Documents.
- D. Label each sample with project title and complete product identification, including manufacturer, model number, descriptive name, supplier, and as applicable to sample identification.
- E. All samples provided by the Contractor will be at no cost to the City.

#### **2.04 CERTIFICATES AND TEST REPORTS**

- A. Certificates: Submit to the City written statements certifying compliance with the requirements contained on the drawings or within these specifications. Submit product, installer, manufacturer, and material certificates on manufacture's letterhead. Submit welding certificates or AWS or WABO forms or as required by the authorities having jurisdiction.
- B. Test Reports: Submit to the City reports written by qualified testing agency, indicating and interpreting test results of materials or products for compliance requirements.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 33 00 – SUBMITTAL PROCEDURE**

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#### **2.05 COLOR BOARD**

- A. As required per the Contract Documents the Contractor shall prepare a color board of all approved samples that would physically fit on color board. Do not include glass samples or others specifically excluded by the project manager or representative. Color board shall be suitable for presentations.
- B. Samples may be smaller than specified if so required to fit on the color board as long as they are large enough to show color, texture, and other required details. Color board shall include project name, approved manufacturer, and contract number.
- C. Board shall not be less than 16-inches by 20-inches or more than 24-inches by 36-inches unless otherwise approved by the project manager or representative. Samples not included on the color board shall be submitted separately.

#### **2.06 ERRORS AND SUBSTITUTIONS**

- A. Refer to Section 01 25 00 – Substitution Procedures.
- B. Review and verify all information contained in submittals prior to submission for acceptance. Review submittals for errors or deviations from the Contract Documents, including the information received from subcontractors and suppliers, and obtained from websites or catalog data.
- C. Unless the Contractor has in writing calling the City's attention to, and highlighted, contractual deviations for consideration, the Contractor shall not be relieved of the responsibility for supplying the materials, products, equipment, etc., as specified by the Contract Documents.
- D. Erroneous or other catalog data for alternate products, equipment, or materials, not highlighted for substitution consideration, but inadvertently accepted by the City, will not supersede the requirements of the Contract Documents.
- E. Submittal acceptance or approval by the City shall not relieve the Contractor from responsibility for complying with the requirements of the drawings and these specifications.

### **PART 3 - EXECUTION**

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#### **3.01 SUBMITTAL PROCEDURES**

- A. General: Submit all shop drawings, catalog cuts, brochures, samples, certificates, test results, etc., as required under the individual sections within these specifications. Submittals not requested will not be recognized or processed.
- B. Preparation: Prepare a separate submittal form for each product or procedure and identify by referencing the specification section and paragraph number. Number each submittal consecutively.
- C. Transmittal Form: Accompany each submittal with transmittal letter, in triplicate. Transmittal form will be supplied by the City project manager or representative. A sample transmittal form is attached at the end of this section.
- D. In lieu of the above, submittals typically provided on paper may be submitted electronically as PDF's as stipulated by the City project manager or representative.
- E. The City intends to complete the review of a submittal within seven (7) working days of receipt. When incomplete, revise and resubmit, or rejected submittals are returned, make appropriate revisions and re-submit.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 33 00 – SUBMITTAL PROCEDURE**

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- F. Contract time shall not be extended on the basis that the Contractor experienced delays due to submittals marked revise and resubmit, or rejected.
- G. Date, sign, and certify each submittal as being correct and in conformance with the Contract Documents. The City's review of submittals shall not relieve the Contractor of the entire responsibility for correctness of details and dimensions. The Contractor shall assume all responsibility and risk for any errors in submittals.
- H. Whenever materials or equipment are described by using the name of a proprietary item or the name of a particular supplier, the naming of the item establishes the type, function, and quality required. If the name is followed by the words "or equivalent" or "or equal" indicating that a substitution is permitted, materials or equipment of other suppliers may be accepted by the Owner. Submit sufficient information to allow the Owner to determine that the material or equipment proposed is equivalent to that named, subject to the following requirements:
  - 1. The burden of proof as to the type, function, and quality of any such substitute material or equipment shall be upon the Contractor.
  - 2. The City will be the sole judge as to the type, function, and quality of any such substitute material or equipment and the City's decision shall be final.
  - 3. The City may require additional data about the proposed substitution, furnished by the Contractor at its expense.
  - 4. Acceptance by the City of a substitute item shall not relieve the Contractor of the responsibility for full compliance with the Contract Documents and adequacy for the substitute item.
- I. No substitute materials or equipment shall be installed until written approval has been obtained from the City authorizing the material as an "approved equivalent" or "approved equal".
- J. All equipment, materials, articles incorporated into the permanent Work:
  - 1. Shall be new, unless the otherwise stated in the drawings or in these specifications.
  - 2. Shall meet the requirements of the Contract Documents and be approved by the City.
  - 3. May be inspected or tested at any time during their preparation or use.
  - 4. Shall not be used in the Work if they become unfit after being previously applied.

#### **3.02 COORDINATION**

- A. Submit shop drawings and manufacturer's literature in related packages. Submit equipment or material details which are interdependent or are related in any way in order to indicate the complete installation. Do not alter submittals once approved for Construction. Submit revisions for approval by the City, with revisions clearly marked and dated.
- B. The Contractor shall thoroughly review all shop and detail drawings, prior to submittal, to assure coordination with other parts of the work. Failure to do this will be the cause for rejection. Submittals shall bear the Contractor's approval stamp and initials.
- C. Components or materials which require shop drawings and which arrive at the job site prior to approval of shop drawings shall be considered as not being made for this project and shall be subject to rejection and removal from the premises.

**END OF SECTION**

Submittal No.:  (Contractor Assigns)

Date: \_\_\_\_\_

Project Title: \_\_\_\_\_

Specification No.: \_\_\_\_\_ Contract No.: \_\_\_\_\_

**Contractor:**

**Owner:**

Tacoma Power/ Power Shared Services  
3628 South 35<sup>th</sup> Street  
Tacoma, WA 98409

**Subject:** \_\_\_\_\_

Architectural    Civil    Structural    Mechanical    Electrical    Other

**Sending the Following Item(s):**

Submittals    Product/Data    Samples    Plans    Shop Drawings    Copies  
 Specifications    Contract    Other: \_\_\_\_\_

Copies	Section	Description of Product/Data	Manufacturer

**Transmitted as:**

For Approval    For Your Use    Per Your Request    For Review and Comment  
 Other: \_\_\_\_\_

**Remarks:**

**For Use by Architect/Project manager or representative:**

No Exception Taken    Make Corrections Noted    Revise and Resubmit    Rejected (See Response)

*Corrections or comments made on the shop drawings during this review do not relieve Contractor from compliance with the requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of all other contractors and agencies performing his work in a safe and satisfactory manner.*

Response Date: \_\_\_\_\_ Response By: \_\_\_\_\_  
(Date) (Name)

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 35 29 – HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES

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#### PART 1 - GENERAL

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##### 1.01 DESCRIPTION OF WORK

- A. The work includes the requirements for health and safety provisions necessary for all work at the site for this project. The work also includes compliance with all laws, regulations and ordinances with respect to safety, noise, dust, fire and police action, civil disobedience, security or traffic.
- B. The Contractor shall monitor soils, groundwater, and waste materials for indications of materials containing or potentially containing hazardous materials (suspicious materials). Indicators of suspicious materials include, but are not limited to, refuse or waste, oily sheen or coloring on soils or water, or oily or chemical odors. If suspicious materials are encountered, the Contractor shall stop all work in that area and notify the City immediately.

##### 1.02 SUBMITTALS

- A. Submit to the City prior to the Pre-Construction meeting a Work Hazard Analysis Report as described in Paragraph 3.06(B) of the General Provisions.
- B. Prior to the start of any work, prepare and submit a site-specific Spill Prevention, Control, and Countermeasure (SPCC) Plan. The SPCC may be submitted with the Health and Safety Plan (HASP) described below, as one comprehensive document, or as a separate documents. If applicable and acceptable by the City's project manager or representative these may be provided at the onset of the Contract. The SPCC and HASP shall be a living document and updated as require for each Contract Task Order. Each revision to either the SPCC or HASP shall be submitted to the City with a revision number and date of revision.
- C. Prior to the start of any work, prepare and submit a site-specific Health and Safety Plan, which meets all the requirements of local, state and federal laws, rules and regulations and the pertinent regulations listed in these specifications. The HASP shall address all requirements for general health and safety and shall include, but not be limited to, the following:
  - 1. Description of work to be performed and anticipated chemical and/or physical hazards associated with the work.
  - 2. Map of the sites illustrating the location of the anticipated hazards and areas of control for those hazards.
  - 3. Hazardous material inventory and SDS's for all chemicals which will be brought on site.
  - 4. Signage appropriate to warn site personnel and visitors of anticipated site hazards.
  - 5. Documentation that the necessary workers have completed the required HAZWOPER training.
  - 6. Engineering controls/equipment to be used to protect against anticipated hazards.
  - 7. Personal protective equipment and clothing including head, foot, skin, eye, and respiratory protection.
  - 8. Procedures which will be used for:
    - a. Lockout/Tagout;
    - b. Fall Protection;



## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 35 29 – HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES

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- c. Trenching and shoring;
  - d. Hot Work;
  - e. Explosive conditions due to methane or combustible gasses;
  - f. Oxygen deficient conditions;
  - g. Physical hazards;
  - h. Asbestos and lead hazards;
  - i. Suspicious materials;
  - j. Confined-space entry;
  - k. Odorous conditions.
9. Exposure monitoring to be used to evaluate actual hazards compared with anticipated conditions.
  10. Site housekeeping procedures and personal hygiene practices.
  11. Personnel and equipment decontamination plan.
  12. Administrative controls.
  13. Emergency plan including locations of and route to nearest hospital.
  14. Record keeping including:
    - a. Documentation of appropriate employee training
    - b. Respirator fit testing
  15. Name and qualification of person preparing the health and safety plan and person designated to implement and enforce the plan.
  16. Signatory page for site personnel to acknowledge receipt, understanding, and agreement to comply with the plan.
- D. Prior to the start of any work, prepare and submit a project-specific Demolition Management Plan (DMP). See Section 02 41 00 – Demolition, for requirements.

#### 1.03 POTENTIAL CHEMICAL HAZARDS

##### A. On-site Hazardous Materials

1. The Contractor must provide site workers with Hazard Communication standard information for known hazardous materials on-site (in accordance with WAC 296-62-010). The Contractor shall ensure that all site workers are aware of and understand this information.
2. Additional information shall also be provided by the Contractor, as necessary, to meet the Hazard Communication Standard and Health and Safety Plan requirements as noted in WAC 296-62. Workers shall be instructed on basic methods or techniques to assist in detecting suspicious material.

##### B. Potential Exposures Route

1. Inhalation: Airborne dust may be created during site activities. Inhalation of vapors or gases may occur if volatile contaminants or hydrogen sulfides are present.
2. Skin and Eye Contact: Dusts generated during site work activities may settle on the skin or clothing of site workers. Also, workers may contact sediments or water containing hazardous materials, in the normal course of their work. Precautions to prevent skin or eye contact with hazardous materials will be included in the Health and Safety Plan.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 35 29 – HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES**

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3. Ingestion: Inadvertent transfer of site hazardous materials from hands or other objects to the mouth could occur if site workers eat, drink, smoke, chew tobacco, or engage in similar activities in areas where such materials exist. This could result in ingestion of site contaminants. Precautions to prevent accidental or inadvertent ingestion of hazardous materials will be included in the Health and Safety Plan.
- C. Chemical hazards may also result from Contractor operations resulting in inadvertent release of fuel, oil, or other chemicals in a manner that would expose workers.

#### **1.04 POTENTIAL PHYSICAL AND OTHER HAZARDS**

The Work of the Contractor is described elsewhere in these specifications. Precautions to prevent all anticipated physical and other hazards, including heavy equipment, shall be addressed in the Health and Safety Plan.

## **PART 2 - PRODUCTS**

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### **2.01 PRODUCTS SPECIFIED FOR HEALTH AND SAFETY**

Provide the equipment and supplies necessary to support the work as described in the site-specific HASP. Equipment and supplies may include but are not limited to the following.

- A. Chemicals to be used onsite including dust suppressants/wetting agents, cleaning degreasing, and/or welding/cutting supplies.
- B. Hazardous materials inventory and SDS's for the chemicals brought onto the site.
- C. Enclosure equipment (for dust asbestos fiber control)
- D. Fencing and barriers
- E. Warning signs and labels
- F. Fire extinguishers
- G. Equipment to support "hot" work
- H. Equipment to support lock out/tag out procedures
- I. Scaffolding and fall protection equipment
- J. Personal protective equipment (hard hats, foot gear, skin, eye, and respiratory protection)
- K. Area and personnel exposure monitoring equipment
- L. Demolition equipment and supplies
- M. Decontamination equipment and supplies
- N. First aid equipment
- O. Release prevention equipment
- P. Field documentation logs/supplies

## **PART 3 - EXECUTION**

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### **3.01 WORK AREA PREPARATION**

- A. Comply with health and safety rules, regulations, ordinances promulgated by the local, state, and federal government, the various construction permits, and other sections of the Contract Documents. Such compliance includes, but not specifically limited to: any

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 35 29 – HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES

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- and all protective devices, equipment and clothing; guards; restraints; locks; latches; switches; and other safety provisions that may be required or necessitated by state and federal safety regulations. Determine the specific requirements for safety provisions and shall cause inspections and reports by the appropriate safety authorities to be conducted to ensure compliance with the intent of the regulations.
- B. Inform employees and subcontractors and their employees of the potential danger in working with any contaminated materials or equipment at the project site.
  - C. Perform whatever work is necessary for safety and be solely and completely responsible for conditions of the job site, including safety of all persons (including employees of the City, Contractor, and other contractors) and property during the Contract period. This requirement applies continuously and is not limited to normal working hours.
  - D. The City's review of the Contractor's performance does not include an opinion regarding the adequacy of, or approval of, the Contractor's safety supervisor, the site specific HASP, safety program or any safety measures taken in, on, or near the construction site.
  - E. Report accidents causing death, injuries, or damage immediately to the City in person or by telephone or messenger. In addition, promptly report in writing to the City all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses.
  - F. If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, report the facts in writing within 24 hours after occurrence to the City, giving full details of the claim.

#### 3.02 SITE MAINTENANCE

- A. Keep the work site, staging areas and facilities clean and free from rubbish and debris. Remove materials and equipment from the site when they are no longer necessary. Upon completion of the work, and before final acceptance of the work, clear the site of equipment, unused materials and rubbish to present a clean and neat appearance in conformance with the present condition of the site.
  - 1. Cleanup
    - a. Do not permit waste material of any kind to remain on the site of the work or on adjacent streets. Immediately upon such materials becoming unfit for use in the work, collect, carry off the site and dispose of.
    - b. Keep all facilities clear of refuse, rubbish and debris that may accumulate from any source and keep facilities in a neat condition to the satisfaction of the City.
    - c. In the event that waste material, refuse, debris and/or rubbish are not so removed from the work site, the City reserves the right to have the waste material, refuse, debris and/or rubbish removed and the expense of the removal and disposal charged to the Contractor.
    - d. Handle paints, solvents, petroleum products, hazardous substances and other construction materials with care to prevent entry of contaminants into storm drains, surface waters or soils. Dispose of excess materials off site in accordance with applicable local, state and federal regulations.
    - e. Manage all pH-modifying sources to prevent entry of contaminants into storm drains, surface waters or soils. PH-modifying sources include, but are not limited to, bulk cement, concrete washing and cure waters, waste streams

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 35 29 – HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES

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generated from drilling or concrete sawing, grout or concrete pumping, and mixer washout waters.

2. Street Cleaning
  - a. Prevent dirt, dust and debris from escaping from trucks departing the project site by covering dusty loads, washing truck tires before leaving the site or by other reasonable methods.
  - b. In the event that the above requirements are violated and no action is taken by the Contractor after notification of infraction by the City, the City reserves the right to have the streets in question cleaned by others and the expense of the operation charged to the Contractor.

#### 3.03 SPILL PREVENTION AND CONTROL

- A. Prevent, contain and cleanup spilling of oil, fuel and other petroleum products used in the Contractor's operations. All such prevention, containment and cleanup costs shall be borne by the Contractor. Prepare SPCC plan prior to the start of construction activity.
- B. Discharge of oil from equipment or facilities into state waters or onto adjacent land is not permitted under state water quality regulations.
- C. At a minimum, take the following measures regarding oil spill prevention, containment and cleanup.
  1. Inspect fuel hoses, lubrication equipment, hydraulically operated equipment, oil drums and other equipment and facilities regularly for drips, leaks or signs of damage, and maintain and store properly to prevent spills. Provide security to discourage vandalism.
  2. Dike, contain, and/or locate all land-based oil and oil product storage tanks so as to prevent spills from escaping into the water. Line dike and containment area surfaces with impervious material to prevent oil from seeping through.
  3. Contain all visible floating oils and oil products immediately with booms, dikes or other appropriate means and remove from the water prior to discharge into state waters. Contain all visible oils and oil products on land immediately using dikes, straw bales or other appropriate means and remove using sand, ground clay, sawdust or other absorbent material. Properly dispose of absorbent materials after use. Store waste materials temporarily in drums or other leak-proof containers after cleanup and during transport to disposal. Dispose of waste materials off site in accordance with applicable local, state and federal regulations.
  4. In the event of any oil, oil product, or construction material discharges into public waters, or onto land with a potential for entry into public waters, immediately notify all parties required by permits and federal, state and local regulations, and immediately notify the following:
    - a. City: Contact to be provided at the preconstruction meeting
    - b. National Response Center: 800-424-8802
    - c. Washington Department of Ecology, Northwest Regional Office: 360-407-6300
    - d. Washington Emergency Management Division: 800-258-5990

**END OF SECTION**

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 40 00 – QUALITY REQUIREMENTS

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

- A. All work described in the Contract Documents must be fully tested in accordance with the applicable sections of these specifications.
- B. Unless otherwise specified, the Contractor shall furnish and pay for all labor, equipment, and materials to accommodate and provide access for the test of installed products, materials, equipment, and improvements.

##### 1.03 REFERENCE STANDARDS

- A. For products specified by association, trade, or other consensus standards, comply with the requirements of those standards, except when more stringent requirements are specified, or are required by applicable codes.
- B. Reference to standards, specifications, manuals or codes of any technical society, organization, or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest Standard Specification manual, code, or laws or regulations in effect at the date of issue corresponding to the date of the Contract Documents, except where a specific date is referenced, or established by code.
- C. Any part of the work not specifically covered by these specifications shall be performed in accordance with the applicable section of the latest Edition of the "Standard Specifications for Road, Bridge and Municipal Construction" as prepared by the Washington State Department of Transportation.
- D. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
- E. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- F. Obtain copies of standards where required by product specification sections.

##### 1.04 DEFINITIONS

- A. Quality Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and to ensure that proposed construction complies with requirements.
- B. Quality Control Services: Tests, inspections, procedures, and related actions during and after the execution of the Work used to evaluate that actual product incorporated into the Work complies with requirements.

##### 1.05 SUBMITTALS

- A. See Section 01 33 00 - Submittal Procedures, for submittal procedures.
- B. Project Quality Plan (PQP): Submit within 14 days of the Notice to Proceed a written plan detailing the organization and procedures proposed to achieve quality assurance and quality control so that materials, products, workmanship, on-site and off-site fabrication, construction, and operations are in compliance with the Contract Documents and within generally accepted quality standards for similar work.

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 40 00 – QUALITY REQUIREMENTS

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Demonstrate a thorough knowledge of Contract requirements. The PQP is intended to function as a "living document," anticipating requirements and documenting results. At minimum, the PQP will include the following:

1. Qualification Data: For Contractor-provided testing agencies, to demonstrate their capabilities and experience, include proof of qualifications in the form of a recent agency inspection report performed by a recognized authority.
  2. Schedule of Tests and Inspections: For all required tests and inspections. Prepare in tabular form and include the following:
    - a. Specification section number and title.
    - b. Description of test or inspection.
    - c. Identification of applicable standards.
    - d. Identification of test and inspections required.
    - e. Number/frequency of tests and inspections required.
    - f. Time schedule (or time span) for tests and inspections.
    - g. Entity responsible for performing tests and inspections.
    - h. Requirements for obtaining samples.
    - i. Unique characteristics of each quality control service.
  3. Test and inspection log
- C. Permits, Licenses, and Certificates: For City's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgements, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

#### 1.06 QUALITY ASSURANCE

- A. Delegated Design: Where professional design services or certifications by a design professional are specifically required of Contractor, provide products and systems complying with indicated performance and design criteria, or where not indicated, with performance and design criteria of authorities having jurisdiction. In addition to shop drawings, product data, and other required submittals, submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include the list of codes, loads, and other factors used in performing these services.
1. Professional Engineering Qualifications: A professional legally qualified to practice in the State of Washington and experienced in providing engineering services of the kind indicated in the Contract Task Order.
- B. Basic Quality Assurance Qualifications: Wherever the Specifications refer to installers, manufacturers, fabricators, specialists, or factory-authorized service representatives, provide entities with the following qualifications:
1. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Contract Task Order, whose work has resulted in construction with a record of successful in-service performance.
  2. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Contract Task Order and with a record of successful in-service performance.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 40 00 – QUALITY REQUIREMENTS**

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3. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Contract Task Order and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
4. Specialists: Certain sections of the Specifications require that specific construction activities be performed by recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
  - a. Requirements for specialists shall not supersede building codes and regulations governing the Work.
5. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer' s products similar in material, design, and extent to those indicated for this Project.

#### **1.07 QUALITY CONTROL**

- A. Testing for quality control certification or special inspections as required by the permitting authority will be conducted by Tacoma Power and/or an independent laboratory which will be furnished and paid for by the City. Subsequent sampling and testing of rejected material shall be paid for by the Contractor.
  1. Failure of the material to achieve the specified density or standards will be just cause for rejecting any portion of, and/or all of the material represented by the test. All costs associated with replacement materials or any delays caused by such failure shall be borne by the Contractor.
  2. It shall be the contractor's responsibility to prepare test specimens as required for special inspection as required by the permitting authority or the City project manager or representative and the cost shall be incidental to the Contract.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- C. Preconstruction Testing: Where approval of materials, products, or equipment depends on existing test results or preconstruction testing not specifically assigned to the Owner's Testing Agency, Contractor shall provide evidence of test results or, if necessary, shall arrange and pay for testing agency services.
  1. Testing Agency Qualifications: An NRTL-recognized, NVLAP-accredited, or independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548, and with additional qualifications specified in individual sections and as required by authorities having jurisdiction.

## **PART 2 - PRODUCTS**

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**NOT USED**

## **PART 3 - EXECUTION**

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### **3.01 QUALITY ASSURANCE – CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturer's instructions, including each step-in sequence.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 40 00 – QUALITY REQUIREMENTS**

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- C. Should manufacturer's instructions conflict with the Contract Documents, request clarification from the City prior to proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure Products in place with positive anchorage devices designed and sized to withstand the stresses, vibration, physical distortion, or disfigurement.
- H. Familiarity with Pertinent Codes and Standards: In procuring all items used in this work, it is the Contractor's responsibility to verify the detailed requirements of the specifically named codes and standards and to verify that the items procured for use in this work meet or exceed the specified requirements.
- I. Rejection of Non-Complying Items: The City reserves the right to reject items incorporated into the Work which fail to meet the specified minimum requirements. The City further reserves the right, and without prejudice to other recourse the City may take, to accept non-complying items subject to an adjustment in the Awarded Contract Price as approved by the City.

#### **3.02 MOCK-UPS**

- A. Before installing portions of the Work where mock-ups are required, construct mock-ups in location and size indicated for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work. The purpose of mock-up is to demonstrate the proposed range of aesthetic effects and workmanship.
- B. Provide supervisory personnel who will oversee mock-up construction. Provide workers that will be employed during the construction at Project.
- C. Assemble and erect Mock-ups with specified materials, components, attachments, anchorage devices, flashings, seals, and finishes.
- D. Obtain City's approval of mock-ups before starting work, fabrication, or construction.
  - 1. The City will issue written comments within seven (7) working days of initial review and each subsequent follow up review of each mock-up.
  - 2. Make corrections as necessary until City's approval is issued.
- E. Accepted mock-ups shall be a comparison standard for the remaining Work.
- F. Mock-ups will be removed at completion of construction unless specified to remain. Where allowed to remain, protect from all damage.
- G. Where possible salvage and recycle the demolished mock-up materials.

#### **3.03 TOLLERANCES**

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Tolerances will not be cumulative.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from the City before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.



## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 40 00 – QUALITY REQUIREMENTS

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#### 3.04 TEST AND INSPECTION LOG

- A. Prepare and maintain a record of tests and inspections. Include the following:
  - 1. Date of test or inspection
  - 2. Description of work
  - 3. Identification of testing agency or special inspector conducting test or inspection
  - 4. Test or inspection results
  - 5. Date of test or inspection results were transmitted to the City
- B. Maintain log at Project site. Post additions and modifications as they occur. Provide access to test and inspection log for City's reference during normal working hours and prior to each Application for Payment.

#### 3.05 TESTING AND INSPECTION

- A. Testing Agency Duties:
  - 1. Provide qualified personnel at the site. Cooperate with the City and Contractor in performance of services.
  - 2. Perform specified sampling and testing of products in accordance with specified standards.
  - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
  - 4. Promptly notify the City and Contractor of observed irregularities or non-conformance of Work or products.
  - 5. Perform additional tests and inspections as required by the City.
  - 6. Attend preconstruction meetings as requested by the City.
  - 7. Submit reports of all tests and inspections specified.
- B. Limits on Testing/Inspection Agency Authority:
  - 1. Agency may not release, revoke, alter, or enlarge on requirements of the Contract Documents.
  - 2. Agency may not approve or accept any portion of the Work.
  - 3. Agency may not assume any duties of the Contractor.
  - 4. Agency has no authority to stop the Work.
- C. Contractor Responsibilities:
  - 1. Cooperate with laboratory personnel and provide access to the Work.
  - 2. Provide incidental labor and facilities:
    - a. To provide access to Work to be tested/inspected.
    - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
    - c. To facilitate test/inspections.
    - d. To provide storage and curing of test samples.
  - 3. Schedule tests and inspections with Testing Agency. Notify the City and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
  - 4. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
  - 5. Arrange with the City's inspectors or agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 40 00 – QUALITY REQUIREMENTS**

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- D. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by the City.
- E. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor by deducting testing charges from the Contract Task Order Sum.

#### **3.06 MANUFACTURER'S FIELD SERVICE**

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

#### **3.07 SUPERINTENDENT DAILY REPORTS**

- A. Write daily reports for each calendar day, beginning with date of Notice to Proceed, on form(s) approved by the City. Daily Reports will be factual records containing numerical data of the Work and quality assurance and control activities. Identify deficiencies in daily reports and in Non-Conforming Work Log as they occur and as they are resolved. Do not address production issues unless they impact quality assurance or quality control.
- B. Superintendent shall sign and date all reports. Verification shall include a statement that all materials and products incorporated into the Work are in compliance with the terms of the Contract except as noted.
- C. Submit copies of daily reports at each Weekly Meeting.

**END OF SECTION**

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### **1.02 DESCRIPTION OF WORK**

The Work includes the requirements to provide temporary facilities required by both the Contractor and the Owner until Final Completion of the Work. The Work also includes compliance with all controls or ordinances with respect to safety, noise, dust, security, or traffic.

##### **1.03 MOBILIZATION/DEMOBILIZATION REQUIREMENTS**

A. Mobilization shall include, but is not limited to the following:

1. Transportation and set up of all equipment to the site that is required to perform the Work.
2. Installation of all temporary power, wiring, and lighting facilities required to perform the Work.
3. Providing a field office trailer or job shack as required per each Contract Task Order.
4. Providing all offsite communication facilities.
5. Posting all OSHA and WISHA required notices and establishment of safety programs, including holding pre-construction safety meeting with all subcontractors and City representatives.
6. Posting of all required permits as required per the Federal, State, and Local requirements.
7. The Contractors Superintendent at the job site full time or as approved by the City's project manager or representative.
8. Submission and acceptance by the City of all submittals required prior to mobilization to the job site.

B. Demobilization shall include, but is not limited to the following:

1. Transportation and removal of all of the Contractors equipment.
2. Removal of all temporary power, wiring, and lighting facilities.
3. Clean up of the entire work site, storage, and laydown areas to the approval of the City's project manager or representative.
4. Submission and delivery and acceptance of final permits and all require documentation including certificate of occupancy to the City's project manager or representative for each portion of work completed.
5. Disconnection and removal of offsite communication facilities.
6. Submission and acceptance by the City of all redline as-built drawings and all Operation and Management Manuals.

##### **1.04 UTILITIES**

A. Temporary Utilities:

1. General: Cost or use charges for temporary facilities shall be included in the Contract Task Order Sum. Allow other entities to use temporary services and facilities without cost, including but not limited to, City's construction forces, consultants, occupants of the project, testing agencies and authorities having jurisdiction.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS**

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2. All costs associated with preparing utilities for use is the sole responsibility of the Contractor.
- B. Electrical Service:
1. The City will furnish without charge to the Contractor 120 volt single phase power at the or at a location specified by the City's project manager or representative for the Contractor's use. If required, 240 volt power may be provided at the discretion of the City's project manager. The Contractor will furnish and maintain all necessary extension cords, adapters, and equipment in accordance with the applicable rules and regulations. No metering will be required.
- C. Telecommunications Services
1. The Contractor shall provide, maintain, and pay for telecommunication services to the project site at the time of project mobilization.
  2. The City will not provide telephone service for the contractor. Mobile telephone service is available at the site. Mobile service at the hydro projects may be limited.
- D. Water:
1. The City will furnish water for use by the Contractor at a location specified by the City's project manager or representative. The Contractor shall furnish all hoses and connectors as necessary to extend water to the job site.
- E. Sanitary Facilities:
1. It is permissible for the Contractor to use the restrooms that are designated for the Contractor at the Tacoma Public Utilities Complex. Use of these restrooms shall be coordinated with the City's project manager or representative to ensure that they are kept clean and maintained. These restroom facilities are being made available to the Contractor for their convenience, but not to the exclusion of others who may be in the area. Furthermore, the inability of the Contractor to use the restrooms due to damage, vandalism, or any other reason shall not serve as a basis for the contractor to seek compensation from the City.
- F. Temporary Fire Protection:
1. Provide temporary fire protection until permanent systems to supply fire protection requirements are available.
    - a. Provide adequate numbers and types of fire extinguishers.
    - b. Store combustible material in fire-safe containers in fire-safe locations.
    - c. Prohibit smoking in hazardous fire-exposure locations.
    - d. Supervise hot work, welding operations, combustion-type temporary heating units, and similar sources of fire ignition.

#### **1.05 BARRIERS:**

- A. As required by the City's project manager or representative, provide barriers to prevent unauthorized entry to construction and staging/storage areas, to prevent access to areas that could be hazardous to workers or the Tacoma Power employees and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
1. Visqueen or plastic shall be a minimum of 8 mil thick and shall form a continuous barrier sufficient to stop all construction dust and residue.
  2. Temporary walls of plywood may require sound deadening in some areas.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS**

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3. Additional barrier requirements may be required by the City's project manager or representative to provide separation between the Contractors work area and on-going Tacoma Power operations.

B. Protect stored materials, site, and structures from damage.

#### **1.06 FENCING:**

A. The Contractor shall provide construction fencing as required by the City's project manager or representative.

1. Construction: Commercial grade chain link fence. No orange roll-up type fencing is allowed.
2. Provide six (6) foot (1.8 m) high fence around each construction site; equip with vehicular and pedestrian gates with locks.

#### **1.07 JOB SHACK**

A. The Contractor shall supply a job shack where construction plans shall be kept as requested by the City's project manager or representative. The shack shall be large enough to keep redline "AS-BUILT" plans, provide access to City inspectors and project manager or representatives as required, and conduct project meetings required.

B. The Contractor shall keep on the job site a full size copy of the most current drawings and specifications, and shall at all times give the project manager or representative access thereto.

#### **1.08 STORAGE AREA**

The City will provide an open storage area to the Contractor within the project site or within the Tacoma Public Utilities Complex. It is the responsibility of the Contractor to restore the storage area to it original condition at the completion of the Contract Task Order. It is the responsibility of the Contractor to provide and maintain security as required to safeguard all materials, equipment, and tools throughout construction.

#### **1.09 SECURITY AND ACCESS**

A. Security Program

The Contractor shall comply with Tacoma Power's security policies and procedures and take adequate precaution to protect Tacoma Power's property and employees. The Contractor will be supplied with a copy of Tacoma power's security policies and procedures at the pre-construction meeting and will be responsible to review and comply.

B. Entry Control

1. Contractor's entrance to the jobsite at the Tacoma Public Utilities Complex shall be Tacoma Power's Main Gate at the Southeast corner of the ABN. All personnel and materials shall enter and exit through this gate unless other arrangements are made with the City's project manager or representative.
2. Contractor shall maintain a current list of the Contractors and Subcontractor personnel available for on-site inspection at the gate and worksite. Entry shall only be granted to personnel on this list. Identification shall be in the form of picture identification.
3. The Main Gate is controlled by an electronic access control system requiring the use of proximity cards 24 hours a day, 7 days a week. Proximity cards for

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

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contractor or subcontractor personnel shall be issued to the contractor under the following conditions:

- a. Proximity cards will allow the holder ingress/egress at the Main Gate anytime between the hours of 6:00 a.m. to 6:00 p.m., Monday through Friday, excluding City observed holidays.
- b. Contractor will maintain a list of all cards issued and to whom they have been issued and this shall be made available to the City when requested.
- c. All cards shall only be used for access to the Main Gate, if approved by the City's project manager or representative for work associated with this Contract Task Order.
- d. Contractor may allow multiple entries and exits from the use of a single card, but is responsible for ensuring that only authorized personnel have access.
- e. Contractor shall be responsible for all cards issued and shall retrieve them from any personnel no longer working on the project and notify the project manager or representative immediately of any unauthorized or lost cards. Contractor will be charged \$20 for each lost card. Should the contractor fail to notify the project manager or representative of lost cards and unauthorized access is made by others to the TPU yard then the contractor shall be liable for any actions of that user.
- f. At the conclusion of the project, all issued cards shall be returned to the City's project manager or representative and the Contractor will be charged \$50 for each missing card

#### C. Restriction and Operational Control

1. Access for Materials: Deliver materials to the construction area during the hours of 9:00 a.m. to 3:00 p.m. only unless approved by the City's project manager or representative.
2. Contractor Operations:
  - a. Access shall be restricted to the immediate work area and access route identified to be used during construction. Contractor shall confine personnel to the immediate work vicinity while on site.
  - b. Access to the ECC is restricted due to federal regulations. Proximity cards will not allow access to the location and should not be used to attempt access. All contractors entering this location must sign in and out upon each entry and exit, must be escorted by approved Tacoma Power personnel at all times, and must wear a visible contractor's badge at all times. Access and escort will need to be coordinated with facilities staff on a daily basis. There will be no exceptions to or deviations from this requirement.
3. Emergency Site Access during Construction: Maintain Emergency and Fire Lanes at all times throughout construction.

#### 1.10 DUST CONTROL

- A. All dust generating activities shall be managed in accordance with the standards in WAC 173-400, WAC 173-476, CFR 40 and Regional Air Agency regulations based on project location
- B. All contract activities occurring on City of Tacoma owned property inside Grays Harbor, King, Lewis, Mason, and Pierce County shall be managed in accordance with the

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS**

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standards in City of Tacoma Municipal Code Title 12, Department of Ecology Phase I Municipal Stormwater Permit, and City of Tacoma Stormwater Management Plan

- C. The Contractor shall take reasonable measures to prevent unnecessary dust.
- D. Buildings or operating facilities which may be affected adversely by dust shall be adequately protected from dust. Existing or new machinery, motors, instrument panels, or similar equipment shall be protected by suitable dust screens. Proper ventilation shall be included with dust screens.

#### **1.11 VENTILATION**

The Contractor shall utilize reasonable measures to provide adequate ventilation during odorous components of work (i.e. painting, concrete polishing, carpet installation, rubber base installation, etc.). As required by the City's project manager or representative, these components of work may be directed to be completed overnight.

#### **1.12 CONSTRUCTION AIDS**

- A. Provide, operate, and maintain a complete plan for fabricating, handling, conveying, installing and erecting all Work required under the Contract. Maintain materials and equipment in safe and efficient operating condition. Contractor shall be responsible for damages due to defective materials and equipment and uses made thereof.
- B. Furnish, install, and maintain for the duration of construction all required barricades, canopies, warning signs, steps, bridges, platforms and other temporary construction necessary for proper completion of the work. Maintain in compliance with all pertinent safety and other regulations.

#### **1.13 QUALITY ASSURANCE**

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to:
  - 1. Building code requirements
  - 2. Health and safety regulations
  - 3. Utility company regulations
  - 4. Police, Fire department and rescue squad rules
  - 5. Environmental protection regulations
- B. Standards:
  - 1. General: Comply with the following:
    - a. NFPA Code 241, "Building Construction and Demolition Operations".
    - b. ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition".
  - 2. Recommendations: Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services" prepared jointly by AGC and ASC for industry recommendations.
  - 3. Electrical Service: Comply with NEMA, NECA, and UL standards and regulations for temporary electrical service. Install service in compliance with NEC (NFPA 70).
- C. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility prior to use. Obtain all required certifications and permits.

**DIVISION 01 – GENERAL REQUIREMENTS**

**SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS**

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**1.14 SUBMITTALS**

- A. Temporary Facilities Site Plan: Show temporary facilities, utility connections, and staging areas for construction personnel.
- B. Temporary Utilities: Prepare a schedule for the City’s approval indicating dates for implementation and termination of each temporary utility provision.

**PART 2 - PRODUCTS**

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**NOT USED**

**PART 3 - EXECUTION**

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**NOT USED**

<b>END OF SECTION</b>
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**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 60 00 – PRODUCT REQUIREMENTS**

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**PART 1 - GENERAL**

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**1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

**1.02 SUBMITTALS**

- A. Product Data Submittals: Prepare and submit manufacturer standard published data. Mark each copy to identify the applicable products, models, options, and other pertinent data. Where applicable, supplement the manufacturer standard published data and provide pertinent project-specific information.
- B. Shop Drawing Submittals: Prepare and submit detailed and legible project-specific shop drawings. Unless otherwise requested, shop drawings shall be drawn to scale. Indicate geometry and identify applicable tolerances.
  - 1. Submittal for substitution request does not include point-by-point comparison of proposed substitution with specified product.

**PART 2 - PRODUCTS**

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**2.01 NEW PRODUCTS**

- A. Provide new products unless specifically required or permitted by the Contract Documents, or the City project manager or representative.
- B. Product Options
- C. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

**PART 3 - EXECUTION**

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**3.01 TRANSPORTATION AND HANDLING**

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time of materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Deliver with labels and written instructions for handling, storing, protecting, and installing.
- E. Promptly inspect shipments to ensure that products comply with requirements, and that quantities are correct.
- F. Provide equipment and personnel to handle products by methods to prevent soiling.

**3.02 STORAGE AND PROTECTION**

- A. Designate receiving/storage area for incoming products so that they are delivered according to installations schedule and placed convenient to the work area in order to minimize waste due to excessive materials handling and misapplication.
- B. All products shall be stored at a minimum in accordance with Original Equipment Manufacturer (OEM) recommendations to prevent any and all forms of damage to

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 60 00 – PRODUCT REQUIREMENTS

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materials, equipment, and property. Any forms of damage caused by means and/or methods of storage not pursuant to minimum OEM recommendations shall be remedied at the contractor's expense. Maintain and regulate temperature and humidity within acceptable OEM range.

- C. Provide equipment and personnel to store products using methods that prevent soiling.
- D. Store heavy items in a manner that will not endanger supporting construction.
- E. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in the as-delivered new condition.

#### 3.03 SALVAGEABLE AND NON-SALVAGEABLE MATERIAL

##### A. Salvage to Tacoma Public Utilities:

- 1. Contractor shall carefully remove in a manner to prevent damage to all materials and equipment specified or indicated to be salvaged and reused or to remain property of the City. The contractor shall store and protect salvaged items specified or indicated to be reused in the work.
- 2. Any items damaged in removal, storage or handling through carelessness or improper procedures shall be replaced by the contractor in kind or with new items.
- 3. All materials considered salvageable by the City's project manager or representative shall be accumulated and tightly packaged in a container suitable for the type of materials being salvaged. Salvaged materials not reused on this Project Task Order shall be returned to Tacoma Power Warehouse, 3628 South 35th Street (rear), Tacoma, Washington, between the hours of 9:00 A.M. and 2:00 P.M., Monday through Friday.

##### B. Property of the Contractor:

- 1. Demolition, not indicated for salvage, becomes property of Contractor. Removed from site at Contractor's expense to a legal waste site obtained by the Contractor.
- 2. Materials deemed to be non-salvageable by the City's project manager or representative shall be disposed by the Contractor to a legal dump site obtain by them unless otherwise directed by the City. All costs to dispose of non-salvageable materials shall be the Contractor's responsibility.
- 3. The Contractor may, if approved by the City, furnish and install new items in lieu of those specified or indicated to be salvaged and reused, in which case such removed items will become the Contractor's property. Existing materials and equipment removed by the contractor shall not be reused in the work except where so specified or indicated.

**END OF SECTION**

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

- A. The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.
- B. Prior to requesting a final inspection by the City, inspect all work products for defects, damage, specification-consistent quality, functioning equipment, etc., and ensure that all testing and commissioning is complete, and that the Contract Task Order is ready for final Completion.

##### **1.02 SUBMITTALS**

- A. Qualifications Data: Land Surveyor (if used)
- B. Survey Work: Submit name, address, and telephone number of Surveyor prior to starting any work.
  - 1. Submit documentations verifying accuracy of survey work.
  - 2. Submit a copy of site drawing signed and stamped by a Licensed Land Surveyor stating that the elevations and locations of the survey work are in conformance with the Contract Documents.
  - 3. Submit a digital record survey for the project record in AutoCAD format. Note final location of building, site improvements, benchmarks, and utilities.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
  - 1. Structural integrity of any element of the Contract Task Order
  - 2. Integrity of weather exposure or moisture resistant element.
  - 3. Efficiency, maintenance, or safety of any operational element.
  - 4. Visual qualities or sight exposed elements.
  - 5. Work of the City or other contractors.
  - 6. Include a request:
    - a. Identification of the Work
    - b. Location and description of affected work
    - c. Necessity for cutting or alteration
    - d. Description of proposed work and products to be used.
    - e. Effect on work of the City or separate contractor
    - f. Written permission of affected separate contractor
    - g. Date and time the work will be executed.
- D. Project Record Documents: Per Section 01 78 00 Closeout Submittals.

##### **1.03 QUALIFICATIONS**

- A. For survey work, employ a land surveyor registered in State of Washington and acceptable to Owner. Submit evidence of Surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate.
- B. For field engineering, employ a professional engineer of the discipline required for specific service on Project, licensed in Washington.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS**

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#### **1.04 PROJECT CONDITIONS**

- A. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
- B. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
- C. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

#### **1.05 COORDINATION**

- A. See Section 01 10 00 Summary of Work for occupancy-related requirements.
- B. Coordinate scheduling, submittals, and work of the various sections of the Contract Documents to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- C. Coordinate completion and clean-up of work of separate sections.

### **PART 2 - PRODUCTS**

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**NOT USED**

### **PART 3 - EXECUTION**

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#### **3.01 EXAMINATION**

- A. Verify that existing site conditions and substructure surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substructure is capable of structural support or attachment of the work being applied or attached.
- C. Examine and verify specific conditions described in individual sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or mis-fabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to demolition: Examine existing conditions prior to commencing work, including elements subject to damage or movement during demolition. After uncovering existing work, assess conditions affecting performance of work. Beginning of demolition means acceptance of existing conditions.

#### **3.02 PREPARATION**

- A. Clean substrate surfaces prior to applying the next material of substance in accordance with the manufacturers recommendations.
- B. Seal cracks or openings prior to applying next material of substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, of conditioner prior to applying any new material of substance in contact or bond.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS**

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#### **3.03 PRE-INSTALLATION MEETINGS**

- A. When required in individual specification sections or as required by the City project manager or representative, convene a pre-installation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affected, or affected by the work of the specific section.
- C. Notify the City a minimum of four (4) working days in advance of the meeting date.
- D. The Contractor shall prepare a meeting agenda and preside at the meeting.
  - 1. Review conditions of examination, preparation, and installation procedures.
  - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two (2) days after meeting to all participants. Electronic submission to the City of the meeting agenda and minutes in PDF format are acceptable.

#### **3.04 LAYING OUT THE WORK**

- A. Verify locations of survey control points prior to starting work.
- B. Immediately notify the City of any discrepancies discovered.
- C. The Contractor shall locate and protect survey control and reference points.
- D. Control datum for survey is that indicated on the drawings.
- E. Immediately report to the City the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- F. Replace dislocated survey control points based on original survey control. Changes shall not be permitted without prior written notice and acceptance by the City.
- G. Establish a minimum of two permanent benchmarks onsite, referenced to established control points. Record locations, with horizontal and vertical data, on project record documents.
- H. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
  - 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
  - 2. Grid or axis for structures.
- I. Periodically verify layouts by same means.
- J. Maintain a complete and accurate log of control and survey work as it progresses.

#### **3.05 GENERAL INSTALLATION REQUIREMENTS**

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated in the Contract Documents.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated in the Contract Documents.

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS

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- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated in the Contract Documents.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

#### 3.06 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods other than cutting and patching.
- B. Perform whatever cutting and patching is necessary to:
  - 1. Complete the work.
  - 2. Saw cut existing work smooth to avoid damage to existing work to remain.
  - 3. Fit products together to integrate with other work.
  - 4. Provide openings for penetration of mechanical, electrical, and other services.
  - 5. Match work that has been cut to adjacent work.
  - 6. Repair areas adjacent to cuts to required condition.
  - 7. Repair new work damaged by subsequent work.
  - 8. Remove samples of installed work for testing when requested.
  - 9. Remove and replace defective and non-conforming work.
- C. Execute cutting and patching including excavation and fill:
  - 1. To complete the work.
  - 2. To uncover work in order to install improperly sequenced work.
  - 3. To remove and replace defective or non-conforming work.
  - 4. To remove samples of installed work for testing when requested.
  - 5. To provide openings in the work for penetration of mechanical and electrical, and other services.
  - 6. To execute patching to complement adjacent work.
  - 7. To fit materials and products to integrate with other work.
- D. Execute work by methods, saw cutting, that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- E. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- F. Restore work with new products in accordance with requirements of Contract Documents.
- G. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. Cutting:
  - 1. Cut work by methods that will not damage work to be retained and work adjoining. Review proposed procedure(s) with original installer where possible and comply with its recommendations.
  - 2. Where cutting is required, cut work with sawing, drilling, coring and grinding tools. Pneumatic hammering and chopping tools not allowed without prior approval.
- I. Patching:
  - 1. Finish patched surfaces to match finish that existed prior to patching. Patch with seams which are durable and invisible as possible. Comply with specified tolerances of the work. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS**

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2. Restore exposed finishes of patched areas and, where necessary, extend finish restoration onto retained work adjoining in a manner which will eliminate evidence of patching.
3. Where feasible, inspect and test patched areas to demonstrate integrity of work.
4. Match color, texture, and appearance.
5. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

#### **3.07 PROGRESS CLEANING**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain the site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

#### **3.08 PROTECTION OF INSTALLED WORK**

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect cast concrete to remain exposed in the finished building, finished floors, stairs, roofing and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Prohibit traffic from landscaped areas.
- H. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

#### **3.09 CLOSE-OUT COORDINATION**

- A. See Section 01 10 00 for occupancy-related requirements.
- B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- C. Notify affected utility companies and comply with their requirements.
- D. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS**

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- E. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow Coordination Drawings routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. Coordinate completion and clean-up of work of separate sections.

#### **3.10 SUBSTANTIAL COMPLETION**

- A. Substantial Completion is defined in the General Conditions
- B. Preliminary Procedures: Prior to requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request, provide detailed work plan to complete each item and anticipated dates of completion.
  - 1. Submit Contractor's Punch List. For each item, include the dollar value of Work remaining, and reasons why the Work is not complete.
  - 2. Submit substantial completion checklist.
  - 3. Advise the City of pending insurance changeover requirements.
  - 4. Obtain and submit releases permitting City unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 5. Prepare and submit initial Operation and Maintenance Manuals, damage or settlement surveys, property surveys, and similar final record information.
  - 6. Make final changeover of permanent locks and deliver keys to the City. Advise City's personnel of changeover in security provisions.
  - 7. Participate in commissioning in accordance with individual specification section requirements.
  - 8. Submit test/adjust/balance records.
  - 9. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  - 10. Submit changeover information related to City's occupancy, use, operation, and maintenance.
  - 11. Complete final cleaning requirements.
  - 12. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- C. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, the City's project manager or representative will either proceed with inspection or notify Contractor of unfulfilled requirements. During inspection, the City's project manager or representative will verify submitted Contractor's Punch List and will add or deduct items as necessary to form the City's Substantial Completion Punch List. The City's Substantial Completion Punch List will subsequently be provided to the Contractor for resolution. The City's project manager or representative will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on the Contractor's Punch List or the City's Substantial Completion Punch List that must be completed or corrected before certificate will be issued.
  - 1. Re-inspection: If, following City's inspection, Certificate of Substantial Completion is not granted, request re-inspection when the Work identified as incomplete is



## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS**

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- completed or corrected. Unless waived by City, a deductive Change Order for A/E costs will be executed for all Substantial Completion re-inspections.
2. Results of completed inspection will form the basis of requirements for Final Completion.
- D. Checklist: In order to certify, Substantial Completion, all elements on the Substantial Completion Checklist (provided by the City at the pre-construction meeting) MUST be complete.

#### **3.11 FINAL COMPLETION**

- A. Preliminary Procedures: Prior to requesting final inspection for determining date of Final Completion, complete the following:
1. Submit specific warranties, workmanship bonds, maintenance service agreement, final certifications, and similar documents.
  2. Submit copy of the City's Substantial Completion Punch List, with signed and dated certification by the Contractor's Quality Assurance Manager, stating that every item has been completed or otherwise resolved for acceptance.
  3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  4. Prepare and submit Project Record Documents, final Operation and Maintenance Manuals, damage or settlement surveys, property surveys, and similar final record information.
  5. Deliver tools, spare parts, extra materials, accessory keys, and similar items to a location designated by the City. Label with manufacturer's name and model number where applicable. Except where impractical, provide parts and materials in original unopened packaging. Permanently label all accessory keys.
  6. Complete any deferred testing as defined in these specifications.
  7. Submit pest-control final inspection report and certification if applicable.
  8. Instruct the City's employees in operation, adjustment, and maintenance of products, equipment, and systems.
  9. Submit Application for Final Payment and required support documentation and certifications in accordance with the Section 01 20 00 – Payment Procedures.
- B. Inspection: Submit a written request for final inspection for acceptance. Upon receipt or request the City with either proceed with the inspection or notify the Contractor of unfulfilled requirements. The City will certify Application for Final Payment after inspection or will notify the Contractor of construction that must be completed or corrected prior to issuance of the certificate.
1. Re-inspection: Request re-inspection when the work identified in previous inspections as incomplete is completed or corrected. Unless waived by the City, a deductive Change Order for City costs will be executed for Final Completion re-inspections greater than one (1) in number.
- C. Checklists: In order to certify, Final Completion, all elements on the Final Completion Checklist (provided by the City's project manager) must be complete.

#### **3.12 LIST OF INCOMPLETE ITEMS**

- A. General: The Contractors Quality Assurance Manager shall prepare a single list of items to be completed and corrected. Include name and identification of each space

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 70 00 – EXECUTION AND CLOSEOUT REQUIREMENTS

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and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use layout provided in electronic format by Engineer. Submit three copies of list.

#### 3.13 FINAL CLEANING

Execute final cleaning prior to Substantial Completion.

- A. After all trades have completed their work, and just prior to occupancy, the general contractor shall:
  - 1. Leave the entire space perfectly clean and ready for occupancy.
  - 2. Use cleaning materials that are nonhazardous.
  - 3. Clean surfaces exposed to view; remove temporary labels, stains and foreign substances.
  - 4. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
  - 5. Dust removal of all interior surfaces
  - 6. Removal of all temporary surfaces
  - 7. Clean site: sweep paved areas, rake clean landscaped surfaces.
  - 8. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
- B. All surfaces disturbed shall be restored to a condition equal to or better than before the work began.
- C. Surplus conduit material, tools, temporary structures, dirt and rubbish shall be removed and disposed of by the contractor, and the project area shall be left clean to the satisfaction of the project manager or representative.
- D. Clean up is considered incidental to the project and no measurement and payment will be allowed.

**END OF SECTION**

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 73 29 – CUTTING AND PATCHING**

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**PART 1 - GENERAL**

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**1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

**1.02 SUMMARY**

- A. This section includes administrative and procedural requirements for cutting and patching.
- B. Other sections within these specifications contain specific requirements, limitations, materials, and procedures applicable to cutting and patching.

**1.03 SUBMITTALS**

- A. Cutting and Patching Proposal: Submit a proposal for cutting and patching to the City for review, describing procedures in advance of the time cutting and patching will be performed. Request approval to proceed prior to starting the Work. The cutting and patching proposal shall at a minimum contain the following information:
  - 1. Description of the extents of cutting and patching required. Include how it will be performed and explain why it cannot be avoided.
  - 2. Description of the anticipated results in regards to existing construction. Include changes to structural elements, operating components, and changes to the Work's appearance and other significant visual elements.
  - 3. List products to be used and any subcontractors that will perform the work. For all subcontractors list a contact name with phone number.
  - 4. List dates when the cutting and patching will be performed.
  - 5. Utilities: Describe the utilities that the cutting and patching procedures will disturb or affect. List all utilities that will be relocated and/or that will be temporarily out of service. Include duration that utilities will be out of service, and potential disruption to ongoing work for the Contractor and Tacoma Public Utilities.
  - 6. Where cutting and patching includes adding reinforcement to structural elements, submit all details and engineering calculations showing integration of reinforcement with the original structure.
  - 7. The Contractor shall assist the City in obtaining any required permits for the cutting and patching work at no additional Cost to the City.
  - 8. Approval by the City to proceed with cutting and patching does not wave the City's right to require complete removal and replacement of any and all unsatisfactory work.
- B. Where cutting and patching work requires engineering calculations or design, submit to the City the proposed engineers resume and a minimum of 10 successful projects with a similar scope of work.

**1.04 QUALITY ASSURANCE**

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 73 29 – CUTTING AND PATCHING

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1. Obtain approval for the cutting and patching submittal prior to cutting and fetching of the following structural elements:
  - a. Foundations
  - b. Bearing and retaining walls
  - c. Structural concrete
  - d. Structural steel
  - e. Lintels
  - f. Timber and primary wood framing
  - g. Structural decking
  - h. Stair systems
  - i. Miscellaneous structural metals
  - j. Equipment supports
  - k. Piping, ductwork, vessels, and equipment.
- B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating element or related components in a manner that would result in increased maintenance or decreased operational life or safety.
  1. Obtain approval of the cutting and patching submittal prior to cutting and patching the following operating elements or safety related systems:
    - a. Primary operational systems and equipment
    - b. Air or smoke barriers
    - c. Water, moisture, or vapor barriers
    - d. Membranes and flashings
    - e. Fire protection systems
    - f. Noise and vibration control elements and systems
    - g. Control systems
    - h. Communication systems
    - i. Conveying systems
    - j. Security systems
    - k. Electrical wiring systems
- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the City's opinion, reduce the Work's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace and cutting and patching work that is in a visually unsatisfactory manner as determined by the City, at no additional cost to the City.
- D. Where professional design services or certifications by a design professional are required by the Contractor for cutting and patching, submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned by the Contractor to be designed or certified by a design professional, indicating the products and systems are in compliance with performance and design criteria indicated. Include the list of all codes, loads, and other factors used in performing these services.
  1. Professional Engineer Qualifications: A professional legally qualified to practice in the State of Washington and experienced in providing engineer services in the kind indicated.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 73 29 – CUTTING AND PATCHING**

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**1.05 WARRANTY**

- A. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner to maintain in effect any warranties required or existing.

**PART 2 - PRODUCTS**

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**2.01 GENERAL**

Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible if identical materials are unavailable or cannot be used. Use materials whose installed performance will match or exceed those of the existing materials.

**PART 3 - EXECUTION**

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**3.01 INSPECTION**

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed prior to cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action prior to proceeding.
  - 1. Before proceeding, meet at the Project Site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
  - 2. Prior to any cutting, all underground utilities shall be located by a private utility locate company, hired by the Contractor at no cost to the City.

**3.02 PREPARATION**

- A. Temporary Support: Provide temporary support of work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Work that might be exposed during cutting and patching operations.
- C. Avoid interferences with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Avoid cutting existing pipe, conduit, or ductwork serving the project site, but schedule to be removed or relocated until provisions have been made to bypass them.

**3.03 PERFORMANCE**

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.
  - 1. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining construction. Where possible, review proposed procedures with the original Installer; comply with the original Installer's recommendations.
  - 1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible,

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 73 29 – CUTTING AND PATCHING

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- neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. To avoid marring existing finished surfaces, but or drill from the exposed or finished side into concealed surfaces.
  3. Cut through concrete and masonry using a cutting machine, such as a Carborundum saw or a diamond-core drill.
  4. Comply with requirements of applicable Division 31 and 33 sections where cutting and patching requires excavating and backfilling.
  5. Where services are required to be removed, relocated, or abandoned, by-pass utility services, such as pipe or conduit, before cutting. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug-and-seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after bypassing and cutting.
- C. Patching: Patch with durable seams that are invisible as possible. Comply with specified tolerances.
1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
  2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
  3. Where removal of walls and partitions extends one finished area into another, patch and repair floor, wall, and ceiling surfaces in the new space. Provide an even surface of uniform color and appearance. Remove existing ceiling system or finish, and floor and wall coverings, and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch after the area has received primer and second coat.
  4. Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.

#### 3.04 CLEANING

- A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.

**END OF SECTION**

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 74 00 – WASTE MANAGEMENT REQUIREMENTS

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#### PART 1 - GENERAL

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##### 1.01 WASTE MANAGEMENT REQUIREMENTS

This section is to establish minimum work practices to be used for the generation, handling, storage, sampling, disturbance, removal, transportation, designation, and disposal of waste that may be encountered, and/or generated by the Contractor.

- A. All non-hazardous or solid wastes generated, handled, stored, transported, and disposed shall be managed in accordance with the standards in WAC 173-350.
- B. All hazardous materials and wastes generated, handled, stored, transported and disposed shall be managed in accordance with the standards in WAC 173-303.
- C. The City requires that each Contract Task Order generate the least amount of trash and waste possible.
- D. Contractor shall employ processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
- E. Contractor shall minimize trash/waste disposal in landfills; reuse, salvage, or recycle as much waste as economically feasible.
- F. Required Recycling, Salvage, and Reuse: The following may not be disposed of in landfills or by incineration, unless required by the environmental regulations referenced above:
  - 1. Aluminum and plastic beverage containers.
  - 2. Corrugated cardboard.
  - 3. Wood pallets.
  - 4. Treated wood.
  - 5. Metals, including packaging banding, metal studs, sheet metal, structural steel, piping, reinforcing bars, and other items made of steel, iron, galvanized steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
  - 6. Glass.
  - 7. Plastic sheeting.
- G. Contractor shall develop and follow a Waste Management Plan designed to implement these requirements.
- H. Methods of trash/waste disposal that are not acceptable are:
  - 1. Burning on the project site.
  - 2. Burying on the project site.
  - 3. Dumping or burying on other property, public or private.
  - 4. Other illegal dumping or burying.
- I. Regulatory Requirements: Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, State, Pierce County and City of Tacoma requirements, requirements pertaining to legal disposal of all construction and demolition waste materials.
- J. Additional sampling and analysis of waste materials, by the contractor, may be necessary for the determination of proper handling and disposal requirements of the waste in accordance with the standards in WAC 173-303.
- K. The cost of removal, handling, storage, sampling, analysis, transportation, and disposal of non-hazardous and solid waste materials and hazardous materials and

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 74 00 – WASTE MANAGEMENT REQUIREMENTS

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wastes as part of the execution of this contract shall be incidental to the specific proposal item.

#### 1.02 DEFINITIONS

- A. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, adhesives, glues, or the like.
- B. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, repair and demolition operations.
- C. Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitability, corrosively, toxicity or reactivity as defined in WAC 173-303.
- D. Nonhazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitability, corrosively, toxicity, or reactivity as defined in WAC 173-350.
- E. Nontoxic: Neither immediately poisonous to humans nor poisonous after a long period of exposure.
- F. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- G. Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- H. Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- I. Return: To give back reusable items or unused products to vendors for credit.
- J. Reuse: To reuse a construction waste material in some manner on the project site.
- K. Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
- L. Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.
- M. Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- N. Toxic: Poisonous to humans either immediately or after a long period of exposure.
- O. Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- P. Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes soils, salvageable, returnable, recyclable, and reusable material.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Waste Management Plan: Include the following information:
  - 1. Analysis of the trash and waste projected to be generated during the entire Contract Task Order construction cycle, including types and quantities.
    - a. Wastes subject to either WAC 173-303 or WAC 173-350 must be sampled, analyzed, and profiled in accordance with all federal, state, and local regulations.



## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 74 00 – WASTE MANAGEMENT REQUIREMENTS

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- b. Analytical testing shall be performed by a Washington State Department of Ecology accredited laboratory using EPA approved methodologies, as required, for waste determination.
    - c. Contractor shall obtain approval for all proposed waste designations from the City's Contract Task Order project manager or representative prior to any waste transportation and/or disposal efforts are performed. The Contractor may deviate from this approach only after providing and receiving approval of a written work plan describing, in detail, their evaluation process and methods. If an alternative is proposed, the City's Contract Task Order project manager or representative will have reviewed and approved the plan prior to any work starting.
    - d. Testing and waste designations may not be required if the waste materials are managed under a Washington Department of Ecology approved recycling exemption as identified in an approved work plan.
  2. Landfill Options: The name, address, and telephone number of the landfill(s) where trash/waste will be disposed of, the applicable landfill tipping fee(s), and the projected cost of disposing of all project trash/waste in the landfill(s).
  3. Landfill Alternatives: List all waste materials that will be diverted from landfills by reuse, salvage, or recycling.
  4. Meetings: Describe regular meetings to be held to address waste prevention, reduction, recycling, salvage, reuse, and disposal.
  5. Materials Handling Procedures: Describe the means by which materials to be diverted from landfills will be protected from contamination and prepared for acceptance by designated facilities; include separation procedures for recyclables, storage, and packaging.
  6. Transportation: Identify the destination and means of transportation of materials to be recycled, i.e. whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler.
- C. Waste Disposal Reports: Submit at specified intervals as required by the City's project manager or representative, with details of quantities of trash and waste, means of disposal or reuse, and costs; show both totals to date and since last report.
  1. Submit updated Report with each Application for Progress Payment; failure to submit Report will delay payment.
  2. Submit Report on a form acceptable to the City.
  3. Landfill Disposal: Include the following information:
    - a. Identification of material.
    - b. Amount, in tons or cubic yards (cubic meters), of trash/waste material from the project disposed of in landfills.
    - c. State the identity of landfills, total amount of tipping fees paid to landfill, and total disposal cost.
    - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
  4. Recycled and Salvaged Materials: Include the following information for each:
    - a. Identification of material, including those retrieved by installer for use on other projects.
    - b. Amount, in tons or cubic yards (cubic meters), date removed from the project site, and receiving party.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 74 00 – WASTE MANAGEMENT REQUIREMENTS**

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- c. Transportation cost, amount paid or received for the material, and the net total cost or savings of salvage or recycling each material.
  - d. Include manifests, weight tickets, receipts, and invoices as evidence of quantity and cost.
  - e. Certification by receiving party that materials will not be disposed of in landfills or by incineration.
5. Material Reused on Project: Include the following information for each:
- a. Identification of material and how it was used in the project.
  - b. Amount, in tons or cubic yards (cubic meters).
  - c. Include weight tickets as evidence of quantity.
  - d. Other Disposal Methods: Include information similar to that described above, as appropriate to disposal method.

### **PART 2 - PRODUCTS**

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**NOT USED**

### **PART 3 - EXECUTION**

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#### **3.01 WASTE MANAGEMENT PROCEDURES**

- A. See Section 01 30 00 for additional requirements for project meetings, reports, submittal procedures, and project documentation.
- B. See Section 01 50 00 for additional requirements related to trash/waste collection and removal facilities and services.
- C. See Section 01 70 00 for trash/waste prevention procedures related to demolition, cutting and patching, installation, protection, and cleaning.

#### **3.02 WASTE MANAGEMENT PLAN IMPLEMENTATION**

- A. Manager: Designate an on-site person or persons responsible for instructing workers and overseeing and documenting results of the Waste Management Plan.
- B. Communication: Distribute copies of the Waste Management Plan to job site foreman, each subcontractor, and the City.
- C. Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the Contract Task Order.
- D. Meetings: Discuss trash/waste management goals and issues at project meetings.
  1. Pre-construction meeting.
  2. Regular job-site meetings.
- E. Facilities: Provide specific facilities for separation and storage of materials for recycling, salvage, reuse, return, and trash disposal, for use by all contractors and installers.
  1. Provide containers as required.
  2. Provide adequate space for pick-up and delivery and convenience to subcontractors.
  3. Keep recycling and trash/waste bin areas neat and clean and clearly marked in order to avoid contamination of materials.

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 74 00 – WASTE MANAGEMENT REQUIREMENTS

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#### F. NON-HAZARDOUS, SOLID, OR HAZARDOUS WASTE

1. The contractor shall perform a baseline study for each work area where hazardous materials will be disturbed.
    - a. The Contractor shall include all aspects of the environment local to the job site.
    - b. The Contractor shall submit a sample plan showing test locations and results to the City's Contract Task Order project manager or representative prior to commencement of work involving the disturbance of hazardous materials at the job site.
    - c. Upon completion of work, including demobilization, the contractor shall perform a post-baseline study and shall submit the study to the engineer.
    - d. The City will not make final payment for work until the City's Contract Task Order project manager or representative has received and reviewed the post-baseline study.
  2. All waste removal work shall only be performed by workers that have completed all Federal and State required training and are knowledgeable in the removal of waste materials.
  3. The Contractor shall follow all requirements of the above referenced codes and regulations to protect all people who may enter the work area during removal of waste materials.
  4. All requirements of the county health department(s) shall be always followed.
  5. The Contractor shall furnish and require use of personal protective equipment for all employees exposed to hazardous materials.
  6. The Contractor shall be responsible for the removal, encapsulation and reclamation/disposal of all waste materials disturbed, managed, and/or generated under this contract.
  7. If applicable and/or requested by the City's Contract Task Order project manager or representative, the Contractor shall include a copy of their lead/asbestos abatement program and waste management policies and procedures in the Contractor's Work Hazard Analysis Report. The Report shall be submitted to the City in advance of the preconstruction conference in accordance with Section 02 82 00 – Asbestos Remediation and 02 83 00 – Lead Remediation.
- G. Recycling: Separate, store, protect, and handle at the site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from the site or deliveries to recycling facility in order to prevent contamination of recyclable materials.
- H. Reuse of Materials On-Site: Set aside, sort, and protect separated products in preparation for reuse.
- I. Salvage: Set aside, sort, and protect products to be salvaged for reuse off-site.

**END OF SECTION**

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 78 00 – CLOSEOUT SUBMITTALS**

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**PART 1 - GENERAL**

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**1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 30 00 – Administrative Requirements: Submittals procedures, shop drawings, product data, and samples
- B. Section 01 70 00 – Execution and Closeout Requirements: Contract closeout procedures. Substantial Completion and Final Completion Checklists.
- C. Individual Product Sections: Specific requirements for operation and maintenance data.
- D. Individual Product Sections: Warranties required for specific products of Work.

**1.03 SUBMITTALS**

- A. Project Record Documents: Submit documents to the City with claim for final Application for Payment.
- B. Operation and Maintenance Data:
  - 1. Submit PDF preliminary draft or proposed formats and outlines of contents at least ten (10) working days prior to requesting inspection for Substantial Completion. The City will review the draft and return with any comments.
  - 2. For equipment, or component parts of equipment put into service during construction and operated by the City, submit completed documents within ten (10) working days after acceptance.
  - 3. Submit completed record documents ten (10) working days prior to final inspection. These record documents will be reviewed and returned by the City after the final inspection, with comments as applicable. Revise all of the record document sets as required by the City prior to final submission.
  - 4. Submit revised final record documents in final for ten (10) working days after final inspection.
- C. Warranties and Bonds:
  - 1. For equipment or component parts of equipment put into service during construction with City's permission, submit documents within ten (10) working days after acceptance.
  - 2. Make other submittals within ten (10) days after Date of Substantial Completion, prior to final Application for Payment. Provide original hardcopy in binder and digital copy as PDF, provide tabs for all future items.
  - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten (10) working days after acceptance, listing the date of acceptance as the beginning of the warranty period.

**DIVISION 01 – GENERAL REQUIREMENTS**  
**SECTION 01 78 00 – CLOSEOUT SUBMITTALS**

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**PART 2 - PRODUCTS**

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**NOT USED**

**PART 3 - EXECUTION**

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**3.01 RECORD DRAWINGS**

- A. Record Prints: Maintain on full-size hard copy black and white prints of the Contract Drawings and Shop Drawings.
1. Identification: In red ink and block letters, label each Record Drawing, including cover sheets, "PROJECT RECORD DRAWING" in a prominent location on title block. Show all addenda changes on the applicable drawing sheet or specification section.
  2. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
    - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - b. Accurately record information in an understandable drawing technique.
    - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
  3. Content: Types of items requiring marking include, but are not limited to, the following:
    - a. Dimensional changes to Drawings.
    - b. Revisions to details shown on Drawings.
    - c. Changes made by Change Order.
    - d. Changes made by Supplemental Instruction.
    - e. Details not on the original Contract Drawings.
    - f. Field records for variable and concealed conditions.
    - g. Record information on the Work that is shown only schematically.
  4. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
  5. Mark record sets with erasable, red-colored pencil. Use other reproducible colors to distinguish between changes for different categories of the Work at same location.
  6. Mark important additional information that was either shown schematically or omitted from original Drawings.
  7. Note alternate numbers, Change Order numbers, Supplemental Instruction numbers, and similar identification, where applicable.
- B. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing Record Drawings where the City or City's consultant determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 78 00 – CLOSEOUT SUBMITTALS**

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1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
  2. Consult the City for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared Record Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting. Include title blocks matching original drawings and assign appropriate sheet numbers.
- C. Binding: Organize Record Prints and newly prepared Record Drawings into manageable sets and create organized, tabbed PDFs at full scale. Include identification on cover sheets and tabs.

#### **3.02 RECORD SPECIFICATIONS**

- A. General: Annotate by striking out products/manufacturers not included in the work to provide a record of selections made.
1. Note related Change Orders, Record Product Data, and Record Drawings where applicable.
- B. Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications. Include addenda and contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  2. Create a PDF copy with each section tabbed.

#### **3.03 RECORD PRODUCT DATA**

- A. Where the actual product or installation varies substantially from that indicated in previously submitted and approved Product Data, submit Record Product Data marked to indicate actual condition.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  2. Include significant changes in the product delivered to Project site and changes in manufacturer' s written instructions for installation.
  3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.
  4. Where Record Product Data is required as part of Operation and Maintenance Manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

#### **3.04 MISCELLANEOUS RECORD SUBMITTALS**

Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Provide full size PDFs in an organized and tabbed file for miscellaneous records and identify each.

#### **3.05 O&M MANUALS, GENERAL**

- A. Provide PDF files that are organized by section and file and fully tabbed and labeled. Provide files in original size, oriented and rotated in the document to read from top to bottom or screen. Scan or save files at a resolution suitable to clearly read all information at original size. Do not use overly large file sizes. Where operation and

## DIVISION 01 – GENERAL REQUIREMENTS

### SECTION 01 78 00 – CLOSEOUT SUBMITTALS

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- maintenance documentation includes information furnished by multiple sources, assemble and coordinate information into a comprehensive whole. Eliminate all redundant, inapplicable, or unnecessary information so that submitted documentation reflects only actual installation. The QAM is responsible for final assembly of manuals.
- B. Identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."
- C. Directory: Provide a separate directory PDF file summarizing the contents of all O&M Manuals. Include a section in the directory for each of the following:
1. Tables of Contents: Include a table of contents for each O&M Manual.
  2. List of Systems and Subsystems: List systems alphabetically. Include references to O&M Manuals that contain information about each system, and separate references to Specification Sections in which each system or subsystem is addressed.
  3. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
1. Title page.
  2. Table of contents.
  3. Manual contents.
- E. Title Page: Tab and label the title page. Include the following information:
1. Subject matter included in manual.
  2. Name and address of Project.
  3. Name and address of City.
  4. Date of submittal.
  5. Name, address, and telephone number of Contractor.
  6. Name and address of Engineer.
  7. Cross-reference to related systems in other O&M Manuals.
- F. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- G. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.

## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 78 00 – CLOSEOUT SUBMITTALS**

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1. Files: File type and format as approved by the City. Documents shall be PDFs in 8-1/2-by-11-inch format.
  - a. If two or more files are necessary to accommodate data of a system, organize data in each into groupings by subsystem and related components. Cross-reference other files if necessary to provide essential information for proper operation or maintenance of equipment or system.
  - b. Identify each file," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets. Use layout supplied by City in electronic format approved by City.
2. Dividers: Reinforced heavy-paper dividers with plastic-covered tabs for each section. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software media for computerized electronic equipment.
4. Supplementary Text: Prepared on 8-1/2-by-11-inch white bond paper.
5. Drawings: Scan at original size at resolution suitable to read all documentation on the drawing sheet. Do not use higher than necessary resolution resulting in overly large files.

#### **3.06 PRODUCT MAINTENANCE COMPONENT OF O&M MANUALS**

- A. Content: Organize digital PDF manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Product Information: Include the following, as applicable:
  1. Product name and model number.
  2. Manufacturer's name.
  3. Color, pattern, and texture.
  4. Material and chemical composition.
  5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer' s written recommendations and the following:
  1. Inspection procedures.
  2. Types of cleaning agents to be used and methods of cleaning.
  3. List of cleaning agents and methods of cleaning detrimental to product.
  4. Schedule for routine cleaning and maintenance.
  5. Repair instructions.



## **DIVISION 01 – GENERAL REQUIREMENTS**

### **SECTION 01 78 00 – CLOSEOUT SUBMITTALS**

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- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
  - 1. Include procedures to follow and required notifications for warranty claims.

#### **3.07 SYSTEMS AND EQUIPMENT MAINTENANCE COMPONENT OF O&M MANUALS**

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.
- C. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
  - 1. Include procedures to follow and required notifications for warranty claims.

#### **3.08 WARRANTIES AND BONDS**

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten (10) days after completion of the applicable item of work. Except for items put into use with the City's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- 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.
- E. Manual: Bind in commercial quality 8-1/2 by 11 inch (216 by 279 mm) three D side ring binders with durable plastic no-print-transfer-type covers.
- F. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- H. 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.

**END OF SECTION**

# TECHNICAL PROVISIONS - DIVISION 02 – EXISTING CONDITIONS

## SECTION 02 41 00 – DEMOLITION

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### PART 1 - GENERAL

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#### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 01 10 00 – Summary of Work
- B. Section 01 30 00 – Administrative Requirements
- C. Section 01 35 29 – Health, Safety, and Emergency Response Procedures
- D. Section 01 50 00 – Temporary Facilities and Controls
- E. Section 01 73 29 – Cutting and Patching
- F. Section 01 74 00 – Waste Management Requirements
- G. Section 02 82 00 – Asbestos Remediation
- H. Section 02 83 00 – Lead Remediation

#### 1.02 DESCRIPTION OF WORK

- A. The extent and location of the “Demolition” work is indicated on the drawings, in these specifications, and as outlined below.
  - 1. Removal and disposal, in whole or in part, all items (demolition materials, debris, etc.) in compliance with these specifications and all agencies of jurisdiction. All demolished material shall become the property of the Contractor unless otherwise noted in the Contract Documents.
  - 2. Payment of all costs required for disposal items at legal disposal sites, including all permit fees and related costs shall be the responsibility of the Contractor.
- B. The demolition work is included on the drawings for guidance only to indicate typical general construction features of the various types of structures/components and is not to be construed as definitive or adequate to supplant the actual on-site inspection by the Contractor.
- C. Demolition work shall be in accordance with all applicable local, state, and federal regulations, and all permit requirements of the project.

#### 1.03 REFERENCE DRAWINGS

- A. For each Contract Task Order reference drawings if available will be made available for use by the Contractor. The City does not warrant the completeness or accuracy of these documents and the Contractor assumes all risk regarding their use.

#### 1.04 JOB CONDITIONS

- A. The Contractor should visit the site and review the relevant reference drawings to become familiar with the quantities and types of material to be demolished for each Contract Task Order.
- B. Coordinated access to the site in advance with the City.
- C. The Work includes full responsibility for disposal of demolition materials according to local, state, and federal requirements, and the Contract Documents.
- D. Conduct Work to minimize interference with City occupied areas and adjacent areas.

## **DIVISION 02 – EXISTING CONDITIONS**

### **SECTION 02 41 00 – DEMOLITION**

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#### **1.05 QUALITY ASSURANCE**

- A. Comply with City of Tacoma codes, ordinances, and other applicable local, state, and federal regulatory requirements for hazardous materials.
- B. Obtain permits required by authorities for dust control, electrical disconnection and reconnection, and disposal of debris.
- C. Maintain building and worksite egress, fire and life safety systems.

#### **1.06 SUBMITTALS**

- A. Submit a Demolition Management Plan (DMP) that, as a minimum addresses the following:
  - 1. Worker safety, toolbox meetings, and signs.
  - 2. Protection of the Tacoma Public Utility employees.
  - 3. Protection of workers or other persons in areas surrounding the demolition work.
  - 4. Work sequence and schedule.
  - 5. List of subcontractors proposed, including point of contact and telephone numbers
  - 6. List of equipment to be used for demolition operations.
  - 7. Means and methods to protect existing infrastructure, stockpile materials, and deliver salvaged materials.
  - 8. Environmental protection and compliance with permit requirements.
  - 9. Disposal procedures and locations of temporary storage and/or recycling facilities.
  - 10. Schedule of disposal site(s), their locations, and the demolition materials that will be disposed of at each site.
- B. If the DMP is revised, resubmit with any proposed changes for review by the City prior to incorporating changes to means, methods, equipment, tools, temporary supports, etc.
- C. As required by the type of work for Each Contract Task Order, a traffic control plan for vehicular and Tacoma Public Utility employees shall be submitted to the City.

### **PART 2 - PRODUCTS**

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#### **2.01 GENERAL**

Provide products that are required to accomplish, or to be incorporated into, the Work, subject to the City's approval.

#### **2.02 SALVAGE**

- A. The Contractor shall salvage all tagged items, items that are required to be Salvaged as described in the Contract Documents, or otherwise direction by the City's project manager or representative.
- B. Items which may have historic or other value, such as plaques, clocks, or other items as directed by the City's project manager, shall be salvaged.

### **PART 3 - EXECUTION**

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#### **3.01 DEMOLITION ITEMS**

Items and categories for demolition (debris) include, but are not limited to, roofing, insulation, glass windows, doors and frames, ceiling systems, carpet, HVAC ducts and diffusers, heating and cooling units, electrical wiring, fire control systems, plumbing piping and fixtures, and other systems required for the completion of the project.

## **DIVISION 02 – EXISTING CONDITIONS**

### **SECTION 02 41 00 – DEMOLITION**

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#### **3.02 PREPARATION FOR DEMOLITION**

The above list is provided as a guide only, it is not to be construed as being definitive. It is the Contractors responsibility to verify items for demolition and disposal. The contractor shall become familiar with all regulations concerning the removal, storage, transport, and disposal. The contractor is responsible for compliance with all local, state, and federal laws concerning all demolition, storage, transport, and legal disposal of all materials as a result of this Contract Task Order.

- A. Erect and maintain temporary partition and enclosures. Minimize to the extent possible the spread of dust, odors, and noise into City occupied areas.
- B. Install barriers, shoring, and padding to protect existing structures, finishes, materials, utilities, and systems not to be demolished.
- C. Provided temporary signage as applicable for life safety, including building exits, directional paths, and signs warning of dangerous conditions.

#### **3.03 DEMOLITION**

- A. Remove items to be salvaged for the City and place in a designated storage area.
- B. Demolition shall be conducted in an orderly and careful manner to protect existing work to remain.
- C. Demolition debris shall be removed as work progresses.
- D. Completely remove and dispose or recycle all designated items. Infrastructure or materials designated to remain that are damaged by Contractor activities shall be replaced or repaired as determined by the City. All repairs or replacements shall be at the Contractor's expense.
- E. Blasting shall not be permitted.
- F. See specification Section 01 73 29 – Cutting and Patching for all cutting and patching proposed during demolition.

#### **3.04 DISPOSAL AND CLEANUP**

- A. Disposal: Dispose of all demolition material, equipment and debris in accordance with these specifications and in compliance with all local, state, and federal regulation agencies. Disposal materials does not include material and equipment that is not scheduled for salvage or recycling.
- B. Cleanup: Clean the immediate and surrounding area affected by demotion and remove all demolition materials, equipment, and debris. There shall be no debris, rubble, or litter left at the site from any of the demolition operations and the site shall be clean.

<b>END OF SECTION</b>
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## DIVISION 02 – EXISTING CONDITION

### SECTION 02 82 00 – ASBESTOS REMEDIATION

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 02 41 00 – Demolition
- B. Section 02 83 00 – Lead Remediation

##### 1.02 DESCRIPTION OF WORK

The activities in this section shall include all work, labor, equipment, materials, and special permits that will require notification, coverage, or waste management under Environmental Protection Agency, Department of Ecology, Regional, County or City of Tacoma regulation triggered by work performed by the Contractor or under the direction of the Contractor which may include but not limited to; demolition of building structure or structural members of a building, removal of asbestos bearing materials (including suspected asbestos bearing) removal activity on City of Tacoma owned property, structures, and/or buildings during project process.

- A. This section is to establish minimum responsibilities and requirements to be used when demolition, abatement, and/or asbestos materials are generated by the Contractor.
  - 1. All demolition, abatement, and coating removal activities shall be managed in accordance with the standards in WAC 173-400, WAC 173-476, CFR 40 and Regional Air Agency regulations based on project location.
  - 2. All construction activities occurring on City of Tacoma owned property inside King and Pierce County shall be managed in accordance with the standards in City of Tacoma Municipal Code Title 12, Department of Ecology Phase I Municipal Stormwater Permit, and City of Tacoma Stormwater Management Plan.
  - 3. All construction waste and debris generated, stored, handled, transported, and disposed of shall be managed in accordance with the standards in WAC 173-303, WAC 173-350, Regional Air Agency regulations based on project location and all additional waste handling requirements of this contract.
- B. The Contractor shall assume the following:
  - 1. Responsible for securing all permits/notice/registration and all associated permits/notice/registration requirements triggered by the Work performed by the Contractor or under the direction of the Contractor.
  - 2. Responsible for securing transfer/partial coverage for any existing permits/notice/registration triggered by Work performed by the Contractor or under the direction of the Contractor.
  - 3. Responsible for closure of all permits/notice/registration and associated permits/notice/registration secured by the Contractor or under the direction of the Contractor
  - 4. The cost of permits/notice/registration associated plan development, sampling, reporting and requirements shall be included in the Contract Task Order and considered as part of the execution of the Contract Task Order

## DIVISION 02 – EXISTING CONDITION

### SECTION 02 82 00 – ASBESTOS REMEDIATION

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5. Additional sampling and analysis of materials and/or waste by the Contractor may be necessary for the determination of proper handling, storage, and disposal requirements in accordance with the standards in WAC 173-303 and Regional Air Agency regulations, based on project location. All waste handling, storage, and disposal cost shall be incidental to the specific Contract Task Order.

#### 1.03 CODES, LAWS, AND REGULATIONS

- A. Federal requirements which govern asbestos abatement include, but are not limited to, the following regulations:
  1. Occupational Safety and Health Administration (OSHA)
    - a. Title 29 CFR 1926.1101 - Construction Standard for Asbestos
    - b. Title 29 CFR 1926 Subpart E - Personal Protective Equipment and Life Saving Equipment
    - c. Title 29 CFR 1910.134 - Respiratory Protection
    - d. Title 29 CFR 1926 - Construction Industry Standards
    - e. Title 29 CFR 1926.33 - Access to Employee Exposure and Medical Records
    - f. Title 29 CFR 1926.59 same as 1910.1200 - Hazard Communication
    - g. Title 29 CFR 1926 Subpart C – General Safety and Health Provisions and Subpart D – Occupational Health and Environmental Controls
  2. Environmental Protection Agency (EPA):
    - a. 40 CFR 61 Subpart M - National Emission Standard for Hazardous Air Pollutants - Asbestos.
    - b. 40 CFR 763 - Asbestos Hazard Emergency Response Act (AHERA) and Asbestos Hazard Abatement Reauthorization Act (ASHARA)
- B. Washington State Legislator
  1. 90.48 RCW – Water Pollution Control
- C. Washington State Department of Ecology:
  1. Chapter 173-303 WAC – Dangerous Waste Regulations
  2. Chapter 173-460 WAC – Controls for New Sources of Toxic Air Pollutants
  3. Chapter 173-476 WAC – Ambient Air Quality Standards
  4. Chapter 173-490 WAC – Emission Standards and Controls for Sources Emitting Volatile Organic Compounds (VOC)
- D. City of Tacoma Municipal Code Title 12
- E. Regional Air Agencies:
  1. Puget Sound Clean Air Agency Regulation I & III,
  2. Southwest Clean Air Agency Regulation 400, 476, 490, & 493
  3. Olympic Region Clean Air Agency Rule 6.3, 8.2, 8.3, 8.5, 8.6, & 8.7

#### 1.04 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.

## **DIVISION 02 – EXISTING CONDITION**

### **SECTION 02 82 00 – ASBESTOS REMEDIATION**

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- B. Standards which govern asbestos abatement activities include, but are not limited to, the following:
  - 1. American National Standards Institute (ANSI)/ASSP Z9.2 - Fundamentals Governing the Design and Operation of Local Exhaust Systems and ANSI/ASSE Z88.2 - Practices for Respiratory Protection.
  - 2. Underwriters Laboratories (UL) 586-2009 - UL Standard for Safety of HEPA Filter Units, 9th Edition; ANSI Approval 2017-12.
- C. Standards which govern encapsulation work include, but are not limited to the following:
  - 1. American Society for Testing and Materials International (ASTM)
- D. Standards which govern the fire and safety concerns in abatement work include, but are not limited to, the following:
  - 1. National Fire Protection Association (NFPA) 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.
  - 2. NFPA 701 - Standard Methods for Fire Tests for Flame Resistant Textiles and Film.
  - 3. NFPA 101 - Life Safety Code
- E. EPA Guidance Documents:
  - 1. EPA guidance documents which discuss asbestos abatement work activities are listed below. These documents are made part of this section by reference.
  - 2. Guidance for Controlling ACM in Buildings (Purple Book) EPA 560/5- 85-024
  - 3. Asbestos Waste Management Guidance EPA 530-SW-85-007
  - 4. A Guide to Respiratory Protection for the Asbestos Abatement Industry EPA-560-OPTS-86-001
  - 5. Guide to Managing Asbestos in Place (Green Book) TS 799 20T July 1990

#### **1.05 QUALITY ASSURANCE**

- A. Submit the name, address, and telephone number of the Qualified Person (QP) selected to prepare the Asbestos Hazard Abatement Plan, direct monitoring and training, and documented evidence that the QP has successfully completed training in and is accredited and where required is certified as, a Building Inspector, Contractor/Supervisor Abatement Worker, and Asbestos Project Designer as described by 40 CFR 763 as well as 296-62, 296-65, and 296-800 WAC and has successfully completed the National Institute of Occupational Safety and Health (NIOSH) 582 course "Sampling and Evaluating Airborne Asbestos Dust" or equivalent. The QP must be appropriately licensed in the State of Washington as a Project Monitor.
- B. The Designated Competent Person must be experienced in the administration and supervision of asbestos abatement projects including exposure assessment and monitoring, work practices, abatement methods, protective measures for personnel, setting up and inspecting asbestos abatement work areas, evaluating the integrity of containment barriers, placement and operation of local exhaust systems, ACM generated waste containment and disposal procedures, decontamination units installation and maintenance requirements, site safety and health requirements, notification of other employees onsite. The Designated Competent Person must be on-site at all times when asbestos abatement activities are underway. Submit training

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- certification and a current State of Washington Asbestos Contractor's and Supervisor's License. Submit evidence that the Designated Competent Person has a minimum of two (2) years of on-the-job asbestos abatement experience relevant to OSHA designated competent person requirements.
- C. Submit documentation that workers meet the requirements of 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC, 40 CFR 61-SUBPART M PSCAA Regulation III Article 4, and have a current State of Washington Asbestos Workers License.
  - D. Submit a copy of the asbestos contractor's license issued by the State of Washington. Submit the following certification along with the license: "I certify that the personnel I am responsible for during the course of this project fully understand the contents of 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC, 40 CFR 61-SUBPART M, PSCAA Regulation III Article 4, EM 385-1-1, and the Federal, State and local requirements for those asbestos abatement activities that they will be involved in." This certification statement must be signed by the Company's President or Chief Executive.
  - E. Complete fiber counting and provide results to the QP and Contractor for review within 16 hours of the "time off" of the sample pump. Notify the Contract Task Order project manager or representative immediately of any airborne levels of asbestos fibers in excess of the acceptable limits. Submit sampling results to the City and the affected Contractor employees where required by law within three working days, signed by the testing laboratory employee performing air sampling, the employee that analyzed the sample, and the QP. Notify the Contractor and the City immediately of any variance in the pressure differential which could cause adjacent unsealed areas to have asbestos fiber concentrations in excess of 0.01 fibers per cubic centimeter or background whichever is higher. In no circumstance must levels exceed 0.1 fibers per cubic centimeter.
  - F. Provide a local exhaust system that creates a negative pressure of at least 0.02 inches of water relative to the pressure external to the enclosure and operate it continuously, 24-hours a day, until the temporary enclosure of the asbestos control area is removed as required by 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC, 40 CFR 61-SUBPART M, PSCAA Regulation III Article 4, EM 385-1-1. Submit pressure differential recordings for each work day to the QP and Contractor for review and to the City within 24-hours from the end of each work day.
  - G. Provide all records that document quality control for the decontamination of reusable outer protective clothing.
  - H. Submit written evidence that persons who decontaminate, store, or transport asbestos contaminated clothing used in the performance of this contract were duly notified in accordance with 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC.
  - I. Conduct a safety preconstruction conference to discuss the details of the Asbestos Hazard Abatement Plan. The safety preconstruction conference must include the Contractor and their Designated Competent Person, and the Contract Task Order project manager or representative.

#### 1.06 SUBMITTALS

##### A. Asbestos Hazard Abatement Plan

Submit a detailed plan of the safety precautions such as lockout, tagout, tryout, fall protection, and confined space entry procedures and equipment and work procedures to be used in the encapsulation, removal and demolition of materials containing asbestos. The plan, not to be combined with other hazard abatement plans, must be prepared, signed, and sealed by the QP. Provide a Table of Contents for each



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abatement submittal, which follows the sequence of requirements in the Contract. The plan must include but not be limited to the precise personal protective equipment to be used including, but not limited to, respiratory protection, type of whole-body protection and if reusable coveralls are to be employed decontamination methods (operations and quality control plan), the location of asbestos control areas including clean and dirty areas, buffer zones, showers, storage areas, change rooms, removal, encapsulation method, interface of trades involved in the construction, sequencing of asbestos related work, disposal plan, type of wetting agent and asbestos sealer to be used, locations of local exhaust equipment, planned air monitoring strategies, and a detailed description of the method to be employed in order to control environmental pollution. The Asbestos Hazard Abatement Plan must be approved in writing prior to starting any asbestos work. The Contractor, Asbestos Hazard Control Supervisor, CP and QP must meet with the City prior to beginning work, to discuss in detail the Asbestos Hazard Abatement Plan, including work procedures and safety precautions. Once approved by the City, the plan will be enforced as if an addition to the specification. Any changes required in the specification as a result of the plan must be identified specifically in the plan to allow for free discussion and approval by the City prior to starting work.

#### B. Employee Training

Submit certificates, prior to the start of work but after the main abatement submittal, signed by each employee indicating that the employee has received training in the proper handling of materials and wastes that contain asbestos in accordance with 40 CFR 763 and/or 296-62 and 296-65 WAC; understands the health implications and risks involved, including the illnesses possible from exposure to airborne asbestos fibers; understands the use and limits of the respiratory equipment to be used; and understands the results of monitoring of airborne quantities of asbestos as related to health and respiratory equipment as indicated in 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC on an initial and annual basis. Organize certificates by individual worker, not grouped by type of certification. Train personnel involved in the asbestos control work in accordance with United States Environmental Protection Agency (USEPA) Asbestos Hazard Emergency Response Act (AHERA) training criteria or State training criteria whichever is more stringent. Document the training by providing: dates of training, training entity, course outline, names of instructors, and qualifications of instructors upon request by the City. Furnish each employee with respirator training and fit testing administered by the QP as required by 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC and 29 CFR 1926.103. Fully cover engineering and other hazard control techniques and procedures. Asbestos workers must have a current State of Washington asbestos worker's license.

#### C. Permits, and Notifications

Prior to the start of work, obtain necessary permits in conjunction with asbestos removal, encapsulation, hauling, and disposition, and furnish notification of such actions required by Federal, State, regional, and local authorities. Notify the City and other appropriate local, state, and government agencies in writing 20 working days prior to the start of asbestos work as indicated in applicable laws, ordinances, criteria, rules, and regulations. Submit copies of all Notifications to the City. Notify the local fire department 3 days prior to removing fire-proofing material from the building including notice that the material contains asbestos.

#### D. Testing Laboratory

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Submit the name, address, and telephone number of each testing laboratory selected for the sampling, analysis, and reporting of airborne concentrations of asbestos fibers along with evidence that each laboratory selected holds the appropriate State license, permits and certification that each laboratory is American Industrial Hygiene Association (AIHA) accredited and that persons counting the samples have been judged proficient by current inclusion on the AIHA Asbestos Analysis Registry (AAR) and successful participation of the laboratory in the Proficiency Analytical Testing (PAT) Program. Where analysis to determine asbestos content in bulk materials or transmission electron microscopy is required, submit evidence that the laboratory is accredited by the National Institute of Science and Technology (NIST) under National Voluntary Laboratory Accreditation Program (NVLAP) for asbestos analysis. The testing laboratory firm must be independent of the asbestos contractor and must have no employee or employer relationship which could constitute a conflict of interest.

#### E. Landfill Approval

Submit written evidence that the landfill is approved for asbestos disposal by the U.S. Environmental Protection Agency, Region 10, and local regulatory agencies. Within three working days after delivery, submit detailed delivery tickets, prepared, signed, and dated by an agent of the landfill, certifying the amount of asbestos materials delivered to the landfill. Submit a copy of the waste shipment records within one day of the shipment leaving the project site.

#### F. Transporter Certifications

Submit written evidence that the transporter is approved to transport asbestos waste in accordance with the DOT requirements of 49 CFR 171, 49 CFR 172 and 49 CFR 173 as well as registration requirements of 49 CFR 107 and all other State and local regulatory agency requirements.

## PART 2 - PRODUCTS

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### 2.01 ENCAPSULANTS

Encapsulants must conform to current USEPA requirements, contain no toxic or hazardous substances as defined in 29 CFR 1926.59, and conform to the following performance requirements.

#### A. Removal Encapsulants

1. Flame Spread 25, Smoke Emission 50, per ASTM E84
2. Life expectancy of 20 years per ASTM C732 Accelerated Aging Test
3. Permeability, minimum of 0.4 perms per ASTM E96
4. Fire Resistance – Negligible affect on fire resistance rating over 3 hour test, per ASTM E119.
5. Impact Resistance – Minimum 43 in/lb, per ASTM D2794 Gardner Impact Test
6. Flexibility - No rupture or cracking, per ASTM D522 Mandrel Bend Test

#### B. Bridging Encapsulant

1. Flame Spread 25, Smoke Emission 50, per ASTM E84
2. Life expectancy of 20 years per ASTM C732 Accelerated Aging Test
3. Permeability, minimum of 0.4 perms per ASTM E96
4. Fire Resistance – Negligible affect on fire resistance rating over 3 hour test, per ASTM E119.
5. Impact Resistance – Minimum 43 in/lb, per ASTM D2794 Gardner Impact Test
6. Flexibility - No rupture or cracking, per ASTM D522 Mandrel Bend Test

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#### **C. Penetrating Encapsulant**

1. Flame Spread 25, Smoke Emission 50, per ASTM E84
2. Life expectancy of 20 years per ASTM C732 Accelerated Aging Test
3. Permeability, minimum of 0.4 perms per ASTM E96
4. Cohesion/Adhesion Test – 50 pounds of force/foot, per ASTM E119
5. Fire Resistance – Negligible affect on fire resistance rating over 3 hour test, per ASTM E119.
6. Impact Resistance – Minimum 43 in/lb, per ASTM D2794 Gardner Impact Test
7. Flexibility - No rupture or cracking, per ASTM D522 Mandrel Bend Test

#### **D. Lock-down Encapsulant**

1. Flame Spread 25, Smoke Emission 50, per ASTM E84
2. Life expectancy of 20 years per ASTM C732 Accelerated Aging Test
3. Permeability, minimum of 0.4 perms per ASTM E96
4. Fire Resistance – Negligible affect on fire resistance rating over 3 hour test, per ASTM E119.
5. Impact Resistance – Minimum 43 in/lb, per ASTM D2794 Gardner Impact Test
6. Bond Strength – 100 pounds of force /foot, per ASTM E736

### **2.02 DISPOSAL CONTAINERS**

Leak-tight (defined as solids, liquids, or dust that cannot escape or spill out) disposal containers must be provided for ACM wastes as required by 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC. Disposal containers can be in the form of:

1. Disposal Bags
2. Fiberboard Drums
3. Cardboard Boxes

### **2.03 SHEET PLASTIC**

Sheet plastic must be polyethylene of 6 mil minimum thickness and must be provided in the largest sheet size necessary to minimize seams.

### **2.04 FLAME RESISTANCE**

Where a potential for fire exists, flame-resistant sheets must be provided. Film must conform to the requirements of NFPA 701.

### **2.05 REINFORCEMENT**

Reinforced sheets must be provided where high skin strength is required, such as where it constitutes the only barrier between the regulated area and the outdoor environment. The sheet stock must consist of translucent, nylon-reinforced or woven-polyethylene thread laminated between 2 layers of polyethylene film. Film must meet flame resistant standards of NFPA 701.

### **2.06 MASTIC REMOVING SOLVENT**

Mastic removing solvent must be nonflammable and must not contain methylene chloride, glycol ether, or halogenated hydrocarbons. Solvents used onsite must have a flash point greater than 140 degrees F.

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#### 2.07 LEAK TIGHT WRAPPING

Two layers of 6 mil minimum thick polyethylene sheet stock must be used for the containment of removed asbestos-containing components or materials such as large tanks, boilers, insulated pipe segments and other materials. Upon placement of the ACM component or material, each layer must be individually leak-tight sealed with duct tape.

#### 2.08 VIEWING INSPECTION WINDOW

Where feasible, a minimum of one clear, 1/8 inch thick, acrylic sheet, 18 by 24 inches, must be installed as a viewing inspection window at eye level on a wall in each containment enclosure. The windows must be sealed leak-tight with industrial grade duct tape.

#### 2.09 WETTING AGENTS

Removal encapsulant (a penetrating encapsulant) must be provided when conducting removal abatement activities that require a longer removal time or are subject to rapid evaporation of amended water. The removal encapsulant must be capable of wetting the ACM and retarding fiber release during disturbance of the ACM greater than or equal to that provided by amended water. Performance requirements for penetrating encapsulants are specified in paragraph ENCAPSULANTS above.

### PART 3 - EXECUTION

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#### 3.01 EQUIPMENT

##### A. Air Monitoring Equipment

The Contractor's QP must approve air monitoring equipment. The equipment must include, but must not be limited to:

1. High-volume sampling pumps that can be calibrated and operated at a constant airflow up to 16 liters per minute.
2. Low-volume, battery powered, body-attachable, portable personal pumps that can be calibrated to a constant airflow up to approximately 3.5 liters per minute, and a self-contained rechargeable power pack capable of sustaining the calibrated flow rate for a minimum of 10 hours. The pumps must also be equipped with an automatic flow control unit which must maintain a constant flow, even as filter resistance increases due to accumulation of fiber and debris on the filter surface.
3. Single use standard 25 mm diameter cassette, open face, 0.8 micron pore size, mixed cellulose ester membrane filters and cassettes with 50 mm electrically conductive extension cowl, and shrink bands for personal air sampling.
4. A flow calibrator capable of calibration to within plus or minus 2 percent of reading over a temperature range of minus 4 to plus 140 degrees F and traceable to a NIST primary standard.

##### B. Respirators

Select respirators from those approved by the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services.

1. Respirators for Handling Asbestos

Provide personnel engaged in pre-cleaning, cleanup, handling, encapsulation, removal and or demolition of asbestos materials with respiratory protection as indicated in 29 CFR 1926.1101 and/or 296-62, 296- 65, 296-842-13005 WAC and 29 CFR 1926.103. Breathing air must comply with CGA G-7.

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C. Exterior Whole Body Protection

1. Outer Protective Clothing

2. Provide personnel exposed to asbestos with disposable "non-breathable," or reusable "non-breathable" whole body outer protective clothing, head coverings, gloves, and foot coverings. Provide disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the plastic or rubber gloves for comfort, but must not be used alone. Make sleeves secure at the wrists, make foot coverings secure at the ankles, and make clothing secure at the neck by the use of tape. Reusable whole body outer protective clothing must be either disposed of as asbestos contaminated waste upon exiting from the asbestos regulated work area or be properly decontaminated.

3. Work Clothing

Provide cloth work clothes for wear under the outer protective clothing and foot coverings and either dispose of or properly decontaminate them as recommended by the QP after each use.

4. Personal Decontamination Unit

Provide a temporary, negative pressure unit with a separate decontamination locker room and clean locker room with a shower that complies with 29 CFR 1926.51(f)(4)(ii) through (V) and/or 296-62 and 296-65 WAC in between for personnel required to wear whole body protective clothing. Provide two separate lockers for each asbestos worker, one in each locker room. Keep street clothing and street shoes in the clean locker. HEPA vacuum and remove asbestos contaminated disposable protective clothing while still wearing respirators at the boundary of the asbestos work area and seal in impermeable bags or containers for disposal. Do not wear work clothing between home and work. Locate showers between the decontamination locker room and the clean locker room and require that all employees shower before changing into street clothes. Collect used shower water and filter with approved water filtration equipment to remove asbestos contamination. Wastewater filters must be installed in series with the first stage pore size 20 microns and the second stage pore size of 5 microns. Dispose of filters and residue as asbestos waste. Dispose of asbestos contaminated work clothing as asbestos contaminated waste or properly decontaminate as specified in the Contractor's Asbestos Hazard Abatement Plan. Keep the floor of the decontamination unit's clean room dry and clean at all times. Proper housekeeping and hygiene requirements must be maintained. Provide soap and towels for showering, washing and drying. Cloth towels provided must be disposed of as ACM waste or must be laundered in accordance with 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC. Physically attach the decontamination units to the asbestos control area. Construct both a personnel decontamination unit and an equipment decontamination unit onto and integral with each asbestos control area.

5. Eye Protection

Provide eye protection that complies with ANSI/ISEA Z87.1 when operations present a potential eye injury hazard. Provide goggles to personnel engaged in asbestos abatement operations when the use of a full face respirator is not required.

D. Regulated Areas

All Class I, II, and III asbestos work must be conducted within regulated areas. The regulated area must be demarcated to minimize the number of persons within the area

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and to protect persons outside the area from exposure to airborne asbestos. Control access to regulated areas, ensure that only authorized personnel enter, and verify that Contractor required medical surveillance, training and respiratory protection program requirements are met prior to allowing entrance.

#### E. Load Out Unit

Provide a temporary load-out unit that is adjacent and connected to the regulated area. Attach the load-out unit in a leak-tight manner to each regulated area. This is mandatory (as feasible) when removal occurs inside of Negative Pressure Enclosure.

#### F. Warning Signs and Labels

Provide warning signs at all approaches to asbestos control areas. Locate signs at such a distance that personnel may read the sign and take the necessary protective steps required before entering the area. Provide labels and affix to all asbestos materials, scrap, waste, debris, and other products contaminated with asbestos. Containers with preprinted warning labels conforming to the requirements are acceptable.

#### G. Local Exhaust System

Provide a local exhaust system in the asbestos control area in accordance with ASSP Z9.2 and 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC that will provide at least four air changes per hour inside of the negative pressure enclosure. Local exhaust equipment must be operated 24-hours per day, until the asbestos control area is removed and must be leak proof to the filter and equipped with HEPA filters. Maintain a minimum pressure differential in the control area of minus 0.02 inch of water column relative to adjacent, unsealed areas. Provide continuous 24-hour per day monitoring of the pressure differential with a pressure differential automatic recording instrument. The building ventilation system must not be used as the local exhaust system for the asbestos control area. Filters on exhaust equipment must conform to ASSP Z9.2 and UL 586. Terminate the local exhaust system out of doors and remote from any public access or ventilation system intakes.

#### H. Tools

Vacuums must be leak proof to the filter and equipped with HEPA filters. Filters on vacuums must conform to ASSP Z9.2 and UL 586. Do not use power tools to remove asbestos containing materials unless the tool is equipped with effective, integral HEPA filtered exhaust ventilation systems. Remove all residual asbestos from reusable tools prior to storage or reuse. Reusable tools must be thoroughly decontaminated prior to being removed from the regulated areas.

#### I. Single Stage Decontamination Area

A decontamination area (equipment room/area) must be provided for Class I work involving less than 25 feet or 10 square feet of TSI or surfacing ACM, and for Class II and Class III asbestos work operations where exposures exceed the PELs or where there is no negative exposure assessment. The equipment room or area must be adjacent to the regulated area for the decontamination of employees, material, and their equipment which could be contaminated with asbestos. The area must be covered by an impermeable drop cloth on the floor or horizontal working surface. The area must be of sufficient size to accommodate cleaning of equipment and removing personal protective equipment without spreading contamination beyond the area.

#### J. Decontamination Area Exit Procedures

Ensure that the following procedures are followed:

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1. Before leaving the regulated area, remove all gross contamination and debris from work clothing using a HEPA vacuum.
2. Employees must remove their protective clothing in the equipment room and deposit the clothing in labeled impermeable bags or containers for disposal or laundering.
3. Employees must not remove their respirators until showering.
4. Employees must shower prior to entering the clean room. If a shower has not been located between the equipment room and the clean room or the work is performed outdoors, ensure that employees engaged in Class I asbestos jobs:
  - a. Remove asbestos contamination from their work suits in the equipment room or decontamination area using a HEPA vacuum before proceeding to a shower that is not adjacent to the work area; or
  - b. Remove their contaminated work suits in the equipment room, without cleaning worksuits, and proceed to a shower that is not adjacent to the work area.

#### 3.02 WORK PROCEDURE

- A. Perform asbestos related work in accordance with 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC, 40 CFR 61-SUBPART M, PSCAA Regulation III Article 4, and as specified herein. Use removal procedures, appropriate encapsulation procedures as listed in the asbestos hazard abatement plan.
- B. Wear and utilize protective clothing and equipment as specified herein. No eating, smoking, drinking, chewing gum, tobacco, or applying cosmetics is permitted in the asbestos work or control areas.
- C. Personnel of other trades not engaged in the encapsulation, removal and demolition of asbestos containing material must not be exposed at any time to airborne concentrations of asbestos unless all the personnel protection and training provisions of this specification are complied with by the trade personnel.
- D. Seal all roof top penetrations, except plumbing vents, prior to asbestos roofing work. Shut down the building heating, ventilating, and air conditioning system, cap the openings to the system, and provide temporary heating, and ventilation, and air conditioning prior to the commencement of asbestos work.
- E. Power to the regulated area must be locked-out and tagged in accordance with 29 CFR 1910.147 and 296-800 WAC. All electrical work must be performed by a licensed electrician.
- F. Stop abatement work in the regulated area immediately when the airborne total fiber concentration:
  1. equals or exceeds 0.01 f/cc, or the pre-abatement concentration, whichever is greater, outside the regulated area; or
  2. equals or exceeds 1.0 f/cc inside the regulated area.
- G. Correct the condition to the satisfaction of the City, including visual inspection and air sampling. Work must resume only upon notification by the City.
- H. Corrective actions must be documented.
- I. If an asbestos fiber release or spill occurs outside of the asbestos control area, stop work immediately, correct the condition to the satisfaction of the City including clearance sampling, prior to resumption of work.

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#### **3.03 BUILDING VENTILATION SYSTEM AND CRITICAL BARRIERS**

- A. Building ventilation system supply and return air ducts in a regulated area must be shut down and isolated by lockable switch or other positive means in accordance with 29 CFR 1910.147 and 296-800 WAC.
- B. Airtight seals must consist of air-tight rigid covers for building ventilation supply and exhaust grills where the ventilation system is required to remain in service during abatement.
- C. Edges to wall, ceiling and floor surfaces must be sealed with industrial grade duct tape.
  - 1. A Competent Person must supervise the work.
  - 2. For indoor work, critical barriers must be placed over all openings to the regulated area.
  - 3. Impermeable dropcloths must be placed on surfaces beneath all removal activity.

#### **3.04 PROTECTION OF EXISTING WORK TO REMAIN**

- A. Perform work without damage or contamination of adjacent work.
- B. Where such work is damaged or contaminated as verified by the City using visual inspection or sample analysis, it must be restored to its original condition or decontaminated by the Contractor at no expense to the City as deemed appropriate by the City.
  - 1. This includes inadvertent spill of dirt, dust, or debris in which it is reasonable to conclude that asbestos may exist.
  - 2. When these spills occur, stop work immediately. Then clean up the spill.
  - 3. When satisfactory visual inspection and air sampling results are obtained from the QP work may proceed at the discretion of the City.

#### **3.05 ASBESTOS CONTROL AREA REQUIREMENTS**

- A. Negative Pressure Enclosure
  - 1. Removal of asbestos contaminated acoustical ceiling tiles, spray applied fireproofing, thermal system insulation, gypsum wallboard/joint compound require the use of a negative pressure enclosure.
  - 2. Block and seal openings in areas where the release of airborne asbestos fibers can be expected.
  - 3. Establish an asbestos negative pressure enclosure with the use of curtains, portable partitions, or other enclosures in order to prevent the escape of asbestos fibers from the contaminated asbestos work area.
  - 4. Negative pressure enclosure development must include protective covering of uncontaminated walls, and ceilings with a continuous membrane of two layers of minimum 6-mil plastic sheet sealed with tape to prevent water or other damage.
  - 5. Provide two layers of 6-mil plastic sheet over floors and extend a minimum of 12 inches up walls. Seal all joints with tape.
  - 6. Provide local exhaust system in the asbestos control area.
  - 7. Openings will be allowed in enclosures of asbestos control areas for personnel and equipment entry and exit, the supply and exhaust of air for the local exhaust system and the removal of properly containerized asbestos containing materials.



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8. Replace local exhaust system filters as required to maintain the efficiency of the system.
- B. Glovebag
1. If the construction of a negative pressure enclosure is infeasible for the removal, encapsulation of ACM. Use alternate techniques as indicated in 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC.
  2. Establish designated limits for the asbestos regulated area with the use of rope or other continuous barriers, and maintain all other requirements for asbestos control areas.
  3. The QP must conduct personal samples of each worker engaged in asbestos handling (removal, disposal, transport and other associated work) throughout the duration of the project. If the quantity of airborne asbestos fibers monitored at the breathing zone of the workers at any time exceeds background or 0.01 fibers per cubic centimeter whichever is greater, stop work, evacuate personnel in adjacent areas or provide personnel with approved protective equipment at the discretion of the City.
  4. This sampling may be duplicated by the City at the discretion of the Contract Task Order project manager or representative.
  5. If the air sampling results obtained by the City differ from those obtained by the Contractor, the City will determine which results predominate.
  6. If adjacent areas are contaminated as determined by the City, clean the contaminated areas, monitor, and visually inspect the area as specified herein.
- C. Regulated Area for Class II Removal
1. Removal of asbestos containing floor tile/mastic, carpet/mastic, sealants, are Class II removal activities.
  2. Establish designated limits for the asbestos regulated work area with the use of red barrier tape; install critical barriers, splash guards and signs, and maintain all other requirements for asbestos control area except local exhaust.
  3. Place impermeable dropcloths on surfaces beneath removal activity extending out 3 feet in all directions.
  4. A detached decontamination system may be used.
  5. Conduct area monitoring of airborne fibers during the work shift at the designated limits of the asbestos work area and conduct personal samples of each worker engaged in the work.
  6. If the airborne fiber concentration of the workers or designated limits at any time exceeds background or 0.01 fibers per cubic centimeter, whichever is greater, stop work immediately and correct the situation.
- D. Removal Procedures
1. Wet asbestos material with a fine spray of amended water during removal, cutting, or other handling so as to reduce the emission of airborne fibers. \
  2. Remove material and immediately place in 6 mil plastic disposal bags.
  3. Remove asbestos containing material in a gradual manner, with continuous application of the amended water or wetting agent in such a manner that no asbestos material is disturbed prior to being adequately wetted.

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4. Where unusual circumstances prohibit the use of 6 mil plastic bags, submit an alternate proposal for containment of asbestos fibers to the City for approval.
    - a. For example, in the case where both piping and insulation are to be removed, the Contractor may elect to wet the insulation, wrap the pipes and insulation in plastic and remove the pipe by sections.
  5. Containerize asbestos containing material while wet.
  6. Do not allow asbestos material to accumulate or become dry.
  7. Lower and otherwise handle asbestos containing material as indicated in 40 CFR 61- SUBPART M, and PSCAA Regulation III Article 4.
- E. Sealing Contaminated Items Designated for Disposal
1. Remove contaminated architectural, mechanical, and electrical appurtenances such as venetian blinds, full-height partitions, carpeting, duct work, pipes and fittings, radiators, light fixtures, conduit, panels, and other contaminated items designated for removal by completely coating the items with an asbestos lock-down encapsulant at the demolition site before removing the items from the asbestos control area.
  2. These items need not be vacuumed.
  3. The asbestos lock-down encapsulant must be tinted a contrasting color and spray-applied by airless method.
  4. Thoroughness of sealing operation must be visually gauged by the extent of colored coating on exposed surfaces.
  5. Lock-down encapsulants must comply with the performance requirements specified herein.
- F. Exposed Pipe Insulation Edges
1. Contain edges of asbestos insulation to remain that are exposed by a removal operation.
  2. Wet and cut the rough ends true and square with sharp tools and then encapsulate the edges with a 1/4 inch thick layer of non-asbestos containing insulating cement troweled to a smooth hard finish.
  3. When cement is dry, lag the end with a layer of non-asbestos lagging cloth, overlapping the existing ends by at least 4 inches.
  4. When insulating cement and cloth is an impractical method of sealing a raw edge of asbestos, take appropriate steps to seal the raw edges as approved by the City.

### 3.06 AIR SAMPLING

- A. Perform sampling of airborne concentrations of asbestos fibers in accordance with 29 CFR 1926.1101, and/or 296-62 and 296-65 WAC, the Contractor's air monitoring plan and as specified herein.
- B. Sampling performed in accordance with 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC must be performed by the QP.
- C. Unless otherwise specified, use NIOSH Method 7400 for sampling and analysis. Monitoring may be duplicated by the City at the discretion of the Contract Task Order project manager or representative.

## **DIVISION 02 – EXISTING CONDITION**

### **SECTION 02 82 00 – ASBESTOS REMEDIATION**

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- D. If the air sampling results obtained by the City differ from those results obtained by the Contractor, the City will determine which results predominate.
- E. Results of breathing zone samples must be posted at the job site and made available to the City.
- F. Submit all documentation regarding initial exposure assessments, negative exposure assessments, and air-monitoring results.

#### **3.07 SAMPLING PRIOR TO ASBESTOS WORK**

- A. Provide area air sampling and establish the baseline one day prior to the masking and sealing operations for each demolition, removal, and encapsulation site.
- B. Establish the background by performing area sampling in similar but uncontaminated sites in the building.

#### **3.08 SAMPLING DURING ASBESTOS WORK**

- A. The QP must provide personal and area sampling as indicated in 29 CFR 1926.1101 and/or 296-62 and 296-65 WAC and governing environmental regulations.
- B. Breathing zone samples must be taken for at least 25 percent of the workers in each shift, or a minimum of two, whichever is greater.
- C. Air sample fiber counting must be completed, and results provided within 24- hours after completion of a sampling period.
- D. In addition, provided the same type of work is being performed, provide area sampling at least once every work shift close to the work inside the enclosure, outside the clean room entrance to the enclosure, and at the exhaust opening of the local exhaust system.
- E. If sampling outside the enclosure shows airborne levels have exceeded background or 0.01 fibers per cubic centimeter, whichever is greater, stop all work, correct the condition(s) causing the increase, and notify the City immediately.
- F. The written results must be signed by testing laboratory analyst, testing laboratory principal and the Contractor's QP.
- G. The air sampling results must be documented on a Contractor's daily air monitoring log.

#### **3.09 SAMPLING AFTER FINAL CLEAN-UP (CLEARANCE SAMPLING)**

- A. Provide area sampling of asbestos fibers and establish an airborne asbestos concentration of less than 0.01 fibers per cubic centimeter after final clean-up but prior to removal of the enclosure or the asbestos work control area.
- B. After final cleanup and the asbestos control area is dry but prior to clearance sampling, the QP must perform a visual inspection in accordance with ASTM E1368 to ensure that the asbestos control and work area is free of any accumulations of dirt, dust, or debris.
- C. Prepare a written report signed and dated by the PQP documenting that the asbestos control area is free of dust, dirt, and debris and all waste has been removed. Utilize EP 1110-1-11, page 51, Setup Detail Sheet 19 titled 'Certification of Final Cleaning and Visual Inspection' or equivalent.
- D. Perform at least thirteen (13) samples, 5 inside the regulated area; 5 outside the regulated area; and 3 field blanks.

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- E. The asbestos fiber counts from these samples must be less than 0.01 fibers per cubic centimeter or be not greater than the background, whichever is greater.
- F. Should any of the final samples indicate a higher value take appropriate actions to re-clean the area and repeat the sampling analysis at the Contractor's expense.

#### **3.10 CLEAN-UP AND DISPOSAL**

##### **A. Housekeeping**

1. Essential parts of asbestos dust control are housekeeping and clean-up procedures.
2. Maintain surfaces of the asbestos control area free of accumulations of asbestos fibers.
3. Give meticulous attention to restricting the spread of dust and debris; keep waste from being distributed over the general area.
4. Use HEPA filtered vacuum cleaners. DO NOT BLOW DOWN THE SPACE WITH COMPRESSED AIR.
5. When asbestos removal is complete, all asbestos waste is removed from the work-site, and final clean-up is completed, the City will attest that the area is safe before the signs can be removed.
6. After final clean-up and acceptable airborne concentrations are attained but before the HEPA unit is turned off and the enclosure removed, remove all pre-filters on the building HVAC system and provide new pre-filters.
7. Dispose of filters as asbestos contaminated materials.
8. Reestablish HVAC mechanical, and electrical systems in proper working order.
9. The City will visually inspect all surfaces within the enclosure for residual material or accumulated dust or debris.
10. The Contractor must re-clean all areas showing dust or residual materials.
11. If re-cleaning is required, air sample and establish an acceptable asbestos airborne concentration after re-cleaning.
12. The City must agree that the area is safe in writing (utilize EP 1110-1-11, page 51, Setup Detail Sheet 19 titled 'Certification of Final Cleaning and Visual Inspection' or equivalent) before unrestricted entry will be permitted.
13. The City retains the option to perform monitoring to determine if the areas are safe before entry is permitted.

##### **B. Title to Materials**

1. All waste materials, except as specified otherwise, become the property of the Contractor and must be disposed of as specified in applicable local, State, and Federal regulations and herein.

#### **3.11 DISPOSAL OF ASBESTOS**

##### **A. Procedure for Disposal**

1. Collect asbestos waste, contaminated waste water filters, asbestos contaminated water, scrap, debris, bags, containers, equipment, and asbestos contaminated clothing which may produce airborne concentrations of asbestos fibers and place

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in sealed fiber-proof, waterproof, non-returnable containers (e.g. double plastic bags 6 mils thick, cartons, drums or cans).

2. Wastes within the containers must be adequately wet in accordance with 40 CFR 61- SUBPART M, and PSCAA Regulation III Article 4. Affix a warning and Department of Transportation (DOT) label to each container including the bags or use at least 6 mils thick bags with the approved warnings and DOT labeling preprinted on the bag.
  3. Clearly indicate on the outside of each container the name of the waste generator and the location at which the waste was generated.
  4. Prevent contamination of the transport vehicle (especially if the transport vehicle is a rented truck likely to be used in the future for non-asbestos purposes). These precautions include lining the vehicle cargo area with plastic sheeting (similar to work area enclosure) and thorough cleaning of the cargo area after transport and unloading of asbestos debris is complete.
  5. Dispose of waste asbestos material at an Environmental Protection Agency (EPA) or State-approved asbestos landfill.
  6. For temporary storage, store sealed impermeable bags in asbestos waste drums or skids.
  7. An area for interim storage of asbestos waste-containing drums or skids may be assigned by the City's project manager or representative.
  8. Comply with 40 CFR 61-SUBPART M, PSCAA Regulation III Article 4, State, regional, and local standards for hauling and disposal.
  9. Sealed plastic bags may be dumped from drums into the burial site unless the bags have been broken or damaged.
  10. Damaged bags must remain in the drum and the entire contaminated drum must be buried.
  11. Uncontaminated drums may be recycled.
  12. Workers unloading the sealed drums must wear appropriate respirators and personal protective equipment when handling asbestos materials at the disposal site.
- B. Asbestos Disposal Quantity Report
1. the QP is to record and report, to the City, the amount of asbestos containing material removed and released for disposal.
  2. Deliver the report for the previous day at the beginning of each day shift with amounts of material removed during the previous day reported in linear feet or square feet as described initially in this specification and in cubic feet for the amount of asbestos containing material released for disposal.

**END OF SECTION**

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 02 41 00 – Demolition
- B. Section 02 82 00 – Asbestos Remediation

##### 1.02 DESCRIPTION OF WORK

The activities in this section shall include all work, labor, materials, services, insurance, special permits and equipment necessary that will require notification, coverage, or waste management under Environmental Protection Agency, Department of Ecology, Regional, County or City of Tacoma regulation triggered by work performed by the contractor or under the direction of the contractor which may include but not limited to; demolition of building structure or structural members of a building, removal of lead bearing materials (including suspected lead bearing) or coatings removal activity on City of Tacoma owned property, structures, and/or buildings during project process.

- A. This section is to establish minimum responsibilities and requirements to be used when demolition, abatement, and/or lead materials are generated by the Contractor.
  - 1. All demolition, abatement, and coating removal activities shall be managed in compliance with the applicable provisions of the Washington Industrial Safety and Health Act, and the Washington State Hazardous Waste Management Act, as well as other applicable federal, state, and local codes and regulations governing hazardous materials and hazardous waste. The Contractor is fully responsible for planning and executing all the Work under this Contract in a manner that meets the requirements of the Washington Administrative Code (WAC) 296-62-07521 (Air Contaminants) and WAC 296-155-176 (Lead) for protecting the health and safety of employees, the public, and for protecting the environment.
  - 2. All construction activities occurring on City of Tacoma owned property inside King and Pierce County shall be managed in accordance with the standards in City of Tacoma Municipal Code Title 12, Department of Ecology Phase I Municipal Stormwater Permit, and City of Tacoma Stormwater Management Plan.
  - 3. All construction waste and debris generated, stored, handled, transported, and disposed of shall be managed in accordance with the standards in WAC 173-303, WAC 173-350, Regional Air Agency regulations based on project location and all additional waste handling requirements of this contract.
- B. The Contractor shall assume the following:
  - 1. Responsible for securing all permits/notice/registration and all associated permits/notice/registration requirements triggered by the Work performed by the Contractor or under the direction of the Contractor.
  - 2. Responsible for securing transfer/partial coverage for any existing permits/notice/registration triggered by Work performed by the Contractor or under the direction of the Contractor.
  - 3. Responsible for closure of all permits/notice/registration and associated permits/notice/registration secured by the Contractor or under the direction of the Contractor

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4. The cost of permits/notice/registration associated plan development, sampling, reporting and requirements shall be included in the Contract Task Order and considered as part of the execution of the Contract Task Order
5. Additional sampling and analysis of materials and/or waste by the Contractor may be necessary for the determination of proper handling, storage, and disposal requirements in accordance with the standards in WAC 173-303 and Regional Air Agency regulations, based on project location. All waste handling, storage, and disposal cost shall be incidental to the specific Contract Task Order.

#### **1.03 CODES, LAWS, AND REGULATIONS**

- A. Federal requirements which govern asbestos abatement include, but are not limited to, the following regulations:
  1. Occupational Safety and Health Administration (OSHA)
    - a. 29 CFR 1910 Occupational Safety and Health Standards
    - b. 29 CFR 1910.134; Respiratory Protection
    - c. 29 CFR 1910.1200; Hazard Communication
    - d. 29 CFR 1926.55; Gases, Vapors, Fumes, Dusts, and Mists
    - e. 29 CFR 1926.57; Ventilation
    - f. 29 CFR 1926.62; Lead Exposure in Construction; Interim Rule (with appendices A, B, C and subpart D)
  2. Environmental Protection Agency (EPA):
    - a. 40 CFR 148; Hazardous Waste Injection Restrictions
    - b. 40 CFR 260; Hazardous Waste Management Systems: General
    - c. 40 CFR 261; Identification and Listing of Hazardous Waste
    - d. 40 CFR 262; Standards Applicable to Generators of Hazardous Waste
    - e. 40 CFR 263; Standards Applicable to Transporters of Hazardous Waste
    - f. 40 CFR 264; Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
    - g. 40 CFR 265; Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
    - h. 40 CFR 268; Land Disposal Restrictions
    - i. 40 CFR 745; Lead; Requirements for Lead-based Paint Activities; Proposed Rule
    - j. 49 CFR 172; Hazardous Materials Tables and Hazardous Materials Communications Regulations
    - k. 49 CFR 178; Specifications for Packaging
  3. National Fire Protection Association (NFPA):
    - a. NFPA 701 Methods of Fire Test for Flame-Resistant Textiles and Films
  4. National Institute for Occupational Safety and Health (NIOSH):
    - a. NIOSH OSHA Booklet 3142 Lead in Construction
- B. State Requirements: Washington State Requirements, and/or L&I rules which govern lead paint work or hauling and disposal include but are not limited to:
  1. WAC 296-62; General Occupational Health Standards
  2. WAC 296-24; Safety Standards for Construction Work
  3. WAC 173-303, 304; Dangerous Waste Regulations, Minimum Functional Standards for Solid Waste Handling
  4. WAC 296-155-176; Occupational Health and Environmental Control; Lead

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- C. City of Tacoma Municipal Code Title 12
- D. Regional Air Agencies:
  - 1. Puget Sound Clean Air Agency Regulation I & III,
  - 2. Southwest Clean Air Agency Regulation 400, 476, 490, & 493
  - 3. Olympic Region Clean Air Agency Rule 6.3, 8.2, 8.3, 8.5, 8.6, & 8.7

#### 1.04 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. Standards which govern asbestos abatement activities include, but are not limited to, the following:
  - 1. American National Standards Institute (ANSI)/ASSP Z9.2 - Fundamentals Governing the Design and Operation of Local Exhaust Systems and ANSI/ASSE Z88.2 - Practices for Respiratory Protection.
  - 2. Underwriters Laboratories (UL) 586-2009 - UL Standard for Safety of HEPA Filter Units, 9th Edition; ANSI Approval 2017-12.

#### 1.05 DEFINITIONS

- A. Action Level: Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8-hour period. As used in this section, "30 micrograms per cubic meter of air" refers to the action level.
- B. Air Monitoring: The process of measuring the concentration of lead in a specific volume of air in a stated period of time. Air samples shall be collected and analyzed in accordance with the methods specified by the National Institute for Occupational Safety and Health (NIOSH Method 7105) and as required by WAC-296-155-176.
- C. Area Monitoring: Sampling of lead concentrations within the lead control area, inside the physical boundaries, which are representative of the airborne lead concentrations that may reach the breathing zone of personnel potentially exposed to lead.
- D. Eight-Hour Time Weighted Average (TWA): Airborne concentration of lead averaged over an 8-hour workday to which an employee is exposed.
- E. Lead: Metallic lead, inorganic lead compounds, and organic lead soaps Excluded from this definition are other organic lead compounds.
- F. Lead Permissible Exposure Limit (PEL): Fifty (50) micrograms per cubic meter of air as an 8-hour time weighted average.
- G. Personal Monitoring: Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with WAC 296-155-176. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulders, with a radius of 6 to 9 inches and the center at the nose or mouth of an employee.



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- H. Industrial Hygienist: The Industrial Hygienist shall be subject to approval as specified under 1.05 Submittals of this specification section and shall be at least one of the following:
1. a. Certified by the American Board of Industrial Hygiene and have prior experience in the health and safety aspects of a lead hazard control work project.
  2. b. A professional engineer or Certified Safety Professional with a minimum of three (3) years prior experience in industrial hygiene relating to lead hazard control work.

#### 1.06 QUALITY ASSURANCE

##### A. Competent Person (CP)

Submit name, address, and telephone number of the CP selected to perform responsibilities specified in paragraph COMPETENT PERSON (CP) RESPONSIBILITIES. Provide documented construction project-related experience with implementation of OSHA's Lead in Construction standard (29 CFR 1926.62), Washington State CTED and/or WISHA DOSH (296-62-07521 WAC also 365-230 WAC) Chromium standard (29 CFR 1926.1126), Cadmium standard (29 CFR 1926.1127) which shows ability to assess occupational and environmental exposure to lead, cadmium, chromium; experience with the use of respirators, personal protective equipment and other exposure reduction methods to protect employee health. Demonstrate a minimum of three (3) years' experience implementing OSHA's Lead in Construction standard (29 CFR 1926.62), Chromium standard (29 CFR 1926.1126), and Cadmium standard (29 CFR 1926.1127) and State of Washington (296-62-07521 WAC also 365-230 WAC). Submit proper documentation that the CP is trained and certified in accordance with federal, Washington State and local laws. The competent person must be a licensed lead-based paint abatement Supervisor/Project Designer in the State of Washington

##### B. Training Certification

Submit a certificate for each worker and supervisor, signed and dated by the accredited training provider, stating that the employee has received the required lead, cadmium and chromium training specified in 29 CFR 1926.62, 29 CFR 1926.1126, 29 CFR 1926.1127 and is certified to perform or supervise deleading, lead removal or demolition activities] [in the State of UFGS Section 02 83 00 Page 10, Washington State CTED and/or WISHA DOSH (296-62-07521 WAC also 365-230 WAC)

##### C. Testing Laboratory

Submit the name, address, and telephone number of the testing laboratory selected to perform the air and wipe analysis, testing, and reporting of airborne concentrations of lead, cadmium and chromium. Use a laboratory participating in the EPA National Lead Laboratory Accreditation Program (NLLAP) by being accredited by either the American Association for Laboratory Accreditation (A2LA) or the American Industrial Hygiene Association (AIHA) and that is successfully participating in the Environmental Lead Proficiency Analytical Testing (ELPAT) program to perform sample analysis. Laboratories selected to perform blood lead analysis must be OSHA approved.

##### D. Consultant Qualifications

Submit the name, address and telephone number of the consultant selected to perform the wipe sampling for determining concentrations of lead, cadmium and chromium in dust. Submit proper documentation that the consultant is trained and certified as an inspector technician or inspector/risk assessor by the USEPA authorized State (or local) certification and accreditation program.

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#### 1.07 SUBMITTALS

- A. Contractors shall provide complete submittals as per these specifications for review by the City. Following receipt of review comments from the City, submit additional complete sets of revised submittals to the City. No lead-related work will be permitted prior to submittals being approved by the Engineer. Allow up to fifteen (15) calendar days for submittal review.
- B. Pre-Work Submittals: The Contractor shall submit to the City for review and acceptance the Contractor's Work Plan as a pre requisite to issuance of the Notice to Proceed. The work plan must be reviewed and signed by the Industrial Hygienist chosen by the Contractor. The plan must be suitably titled and indexed, providing detailed information concerning the following items as a minimum in the order listed below:
1. Work Plan: Provide a site specific work plan prepared and signed by an Industrial Hygienist, which demonstrates the methods by which demolition/renovation and disposal of lead-coated and lead containing structures/components will be performed in a manner consistent with pertinent federal, state, and local regulations and this specification. At a minimum the work plan shall include:
    - a. A general description of lead demolition/renovation work to be performed discussing anticipated chemical and/or physical hazards associated with the work;
    - b. Map of the site illustrating the location of the anticipated lead hazards and methods and areas of control for these hazards;
    - c. Permits and notifications necessary for lead in construction work;
    - d. A step-by-step description of the lead demolition/renovation work to be performed and procedures which will be used;
    - e. Qualification/certification/training certificates and role of each contractor's personnel including at least one (1) proposed Competent Person;
    - f. Qualification/certification/training certificates and role of proposed subcontractor(s);
    - g. Qualification/certification/training certificates of proposed testing laboratory(ies);
    - h. Health and Safety Plan: Provide a site specific health and safety plan including a worker protection program demonstrating the methods by which all applicable health and safety requirements, including WAC-296-155-176, will be met. The Health & Safety Plan shall be available at all times on the job site. As a minimum, the Health & Safety Plan shall include the following components:
      - i. Air Monitoring Plan: Including initial determination, area quality monitoring and personnel exposure monitoring;
      - ii. Respiratory Protection Plan;
      - iii. Personal Protective Equipment;
      - iv. Personal Hygiene Practices;
      - v. Administrative Controls;
      - vi. Emergency Plan;
      - vii. Site Housekeeping Procedures;
      - viii. Engineering Controls/Equipment;
      - ix. Medical Surveillance;

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- x. Medical Removal Protection;
  - xi. Employee Training;
  - xii. Signage;
  - xiii. Decontamination of Equipment and Areas;
  - xiv. Record Keeping;
  - xv. Respirator Fit Test Records;
  - xvi. Medical Examinations: Provide evidence of medical examinations for workers to be used on this project as required by WISHA. Include most recent written physicians opinion regarding employees fitness to perform lead work and utilization of mandatory protective equipment;
  - i. Procedures for dust control;
  - j. Procedures for prevention of and response to unanticipated/unauthorized releases;
  - k. Procedures for runoff control;
  - l. Site inspection process/logs/documents;
  - m. Procedures for personnel and equipment cleanup/decontamination;
  - n. Lead waste management and disposal plan including:
    - i. Description of waste streams (liquid and solids including PPE) which will be generated during the site work;
    - ii. Methods for managing/storing/stock-piling waste materials on-site;
    - iii. Waste minimization efforts;
    - iv. Container selection and labeling;
    - v. Qualification/certificates of lead waste transportation subcontractor;
    - vi. Qualification/certification of lead waste disposal facilities;
    - vii. Documentation of final lead waste transportation and disposition;
  - o. Project documentation photographs/forms/daily logs to be used;
- C. Job Submittals
- 1. The following records are to be completed daily and submitted to the City on a weekly basis:
    - a. Area monitoring
    - b. Personnel monitoring
    - c. Site work/daily logs, safety meeting reports and other site-specific documentation
- D. Final Submittals
- 1. Report of completion including;
    - a. All monitoring information;
    - b. Documentation of final lead waste and decontamination waste disposition;
    - c. Certification that the work has been completed pursuant to this specification.

## PART 2 - PRODUCTS

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### 2.01 MATERIALS AND EQUIPMENT

Keep materials and equipment needed to complete the project available and on the site. Submit a description of the materials and equipment required; including Safety Data Sheets (SDSs) for material brought onsite to perform the work.

- A. Expendable Supplies: Submit a description of the expendable supplies required.

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#### B. Polyethylene Bags:

Disposable bags must be polyethylene plastic and be a minimum of 6 mils thick, or 4 mils thick if double bags are used or any other thick plastic material shown to demonstrate at least equivalent performance; and capable of being made leak-tight. Leak-tight means that solids, liquids or dust cannot escape or spill out.

#### C. Polyethylene Leak-tight Wrapping:

Wrapping used to wrap lead, cadmium, and chromium contaminated debris must be polyethylene plastic that is a minimum of 6 mils thick or any other thick plastic material shown to demonstrate at least equivalent performance.

#### D. Polyethylene Sheeting:

Sheeting must be polyethylene plastic with a minimum thickness of 6 mil, or any other thick plastic material shown to demonstrate at least equivalent performance; and be provided in the largest sheet size reasonably accommodated by the project to minimize the number of seams. Where the project location constitutes an out of the ordinary potential for fire, or where unusual fire hazards cannot be eliminated, provide flame-resistant polyethylene sheets which conform to the requirements of NFPA 701.

#### E. Tape and Adhesive Spray:

Tape and adhesive must be capable of sealing joints between polyethylene sheets and for attachment of polyethylene sheets to adjacent surfaces. After dry application, tape or adhesive must retain adhesion when exposed to wet conditions, including amended water. Tape must be minimum 2 inches wide, industrial strength.

#### F. Containers:

When used, containers must be leak-tight and be labeled in accordance with EPA, DOT and OSHA standards.

#### G. Chemical Paint Strippers

Chemical paint strippers must not contain methylene chloride and be formulated to prevent stain, discoloration, or raising of the substrate materials.

#### H. Chemical Paint Stripper Neutralizer

Neutralizers for paint strippers must be compatible with the substrate and suitable for use with the chemical stripper that has been applied to the surface.

#### I. Detergents and Cleaners

Detergents or cleaning agents must not contain trisodium phosphate and have demonstrated effectiveness in lead, cadmium and chromium control work using cleaning techniques specified by HUD 6780 guidelines.

## PART 3 - EXECUTION

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### 3.01 WORK AREA PREPARATION

#### A. Perform the following preliminary steps to prepare the Work Areas prior to demolition and/or of remediation of lead systems:

1. Establish a Control Area that includes a perimeter sufficient to perform the demolition work around each building or area that contains lead or lead-coated materials. The control area shall also consist of the pathway for transport of any lead-contaminated material to a stockpile or storage receptacle, if the demolition debris is not immediately transported from the site. Provide and display caution

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- signs, in clearly visible areas, at entrances indicating that hazardous material work is being conducted and that unauthorized persons should not enter. Signs shall be comply with WAC 296-155-176regulations.
2. Emergency Procedures: Establish and post written emergency procedures within each Work Area, including emergency contact names and contact phone numbers, plans for medical emergencies, temporary loss of electrical power or water, and procedures for an emergency. Contractor is responsible for establishing and posting contingency procedures to all workers on site.
  3. Health and Safety Briefing: Conduct a health and safety briefing prior to the start of work and weekly to discuss the health and safety plan, hazardous materials, hazardous work and other related items per the specified health and safety plan. More frequent briefings should be performed as required by project activities or changes in the work.
  4. Utilities: Request and coordinate the use and shut down of all utilities. Request and coordinate the use of, including the shut down of electric service to work area and install temporary electric supply with ground fault interrupt protection.
    - a. Prepare all storm drains, floor and area drains and drainage routes using the methods described in the approved work plan to prevent contaminated runoff.
  5. Log-in Sheet: Restrict access to work sites by maintaining a daily log of personnel entering Work Area(s); including workers and other authorized personnel and their start/stop times.
  6. Lead waste Accumulation Area: Prepare the lead-waste storage area as described in the approved work plan.
  7. Decontamination Unit: Prepare the decontamination unit for use at all entrances and exits from the Work Area as described in the approved work plan.

#### 3.02 WORK PROCEDURE

- A. General Procedures: Perform all work and comply with the safety and health provisions in the site specific Health and Safety Plan. The work includes all measures necessary to adequately protect workers, authorized personnel, City staff and the City employees from lead exposures during the general demolition/renovation process and surface preparation activities.
- B. Coordination of Work of all Trades: Coordinate the work of all trades to assure that work is performed in accordance with the applicable regulations and that the control limits are maintained at all times both inside and outside the control area.
- C. Access to Work Areas: Access to work areas shall be through decontamination areas. Only the Contractor, subcontractors, authorized owner's personnel, and project consultants shall have access to the work area.
- D. Means of Egress: Establish and maintain emergency and fire exits from the work area.
- E. Prevent dust generation at all times to the maximum extent practicable.
- F. The use of water shall be restricted to the smallest quantity necessary to minimize dust and to avoid the potential of contaminant migration through run-off or ponding. In no case shall liquids generated during building demolition/renovation come into contact with uncontaminated soils, drains, surfaces or conduits which may constitute a release to the environment.

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- G. Demolition Procedures: Perform demolition in areas of lead-containing materials in accordance with approved Health & Safety Plans. Use procedures and equipment required to limit occupational and environmental exposure to lead when lead-containing paint is impacted or when building components are demolished. The procedures employed by the Contractor shall not create the potential for contaminating surrounding areas or materials with lead-containing coatings or dust. Dust generation shall be kept to a minimum. Dry scraping, dry sanding, or dry grinding on lead-containing materials or lead contaminated surfaces will not be permitted without a full enclosure.
- H. All lead-coated demolition debris shall be handled, stored and disposed of as to meet applicable federal, state and local requirements.
- I. Personnel and equipment decontamination as described in the approved work plan path to shall occur whenever people or equipment leave the work site. Decontamination waste shall be packaged, stored, labeled and disposed of according to all applicable requirements at the cost of the Contractor. All contaminated equipment, tools or materials that cannot be decontaminated shall be stored and disposed of by the Contractor in accordance with all federal, state and local regulations.
- J. Grossly inadequate health, safety or environmental precautions on the part of the Contractor or the belief that the Contractor's personnel, the general public or the environment are or may be exposed to an immediate hazard, may be cause for the City to suspend the Contractor's site work and ask the Contractor's personnel to evacuate the hazard area. The Contractor shall not be compensated for such delays. The Contractor is responsible for costs identified by the City as a consequence of the contractor's actions.
- K. The City may inspect the Contractor's operations and work areas daily for job site cleanliness and conformance with the specifications. The Contractor shall locate any fuels, solvents or lubricants in a common area in a manner which will prevent releases to the environment. Any hazardous materials shall be appropriately labeled with the generic name of the contents and the Contractor's name.

### 3.03 SITE QUALITY CONTROL AND MONITORING

- A. Site Inspection: While performing the work, the Contractor may be subject to on-site inspection by L&I/WISHA, OSHA, EPA/Ecology inspectors and/or local building or health officials. If found to be in violation of pertinent regulations, the Contractor shall cease all work immediately and may not resume work until the violation is resolved. Standby time required to resolve the violation shall be at the Contractor's expense. Complete sets of equipment (such as respirators and disposable clothing) that may be required for entry to the control area shall be made available at all times by the Contractor to the City and/or agency inspectors for inspection of the control area. Such requests will only be made during working hours.
- B. Quality Assurance:
  - 1. Restrict the spread of dust and debris from being distributed over the work area.
  - 2. Prevent dust generation at all times to the maximum extent practicable. The use of water shall be restricted to the smallest quantity necessary to minimize dust and to avoid the potential of run-off or ponding.
  - 3. Area air quality monitoring and personnel monitoring shall be conducted throughout the work as appropriate.

## DIVISION 02 – EXISTING CONDITION

### SECTION 02 83 00 – LEAD REMEDIATION

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4. Air Monitoring: Monitoring of airborne concentrations of lead shall be in accordance with WAC 296-115-176, and as specified herein. Air monitoring, testing, and reporting shall be performed in accordance with an Air Monitoring Plan prepared and signed by the Contractor's Industrial Hygienist. The plan shall include personal monitoring in accordance with regulatory requirements and area monitoring outside the lead control area.
  - a. Submit results of air monitoring samples, signed by the Contractor's Industrial Hygienist, within 24 hours after the air samples were taken.
  - b. Notify the City immediately of the corrective action taken if the exposure to lead is at or in excess of the action level of 30 micrograms per cubic meter of air outside of the lead control area.
  - c. If the area air monitoring results are above the action level of 30 micrograms, the Engineer shall have the option of stopping all work until the work procedures and lead hazard controls are revised to the City's satisfaction.

#### 3.04 CLEAN-UP, TESTING AND DISPOSAL

- A. Housekeeping: Housekeeping and clean-up procedures are essential tasks for contamination control. Maintain all surfaces throughout the area free of contaminated debris to the maximum extent practicable. Restrict debris from being distributed over the general area. In all possible instances workers shall clean-up their own areas. Equip personnel engaged in cleaning up scrap and demolition debris with necessary respiratory equipment and protective clothing.
- B. Cleanup: Maintain surfaces of the lead control area as free of accumulation of paint chips and dust as practicable. Restrict the spread of dust and debris; keep waste from being distributed over the work area. The use of compressed air to clean up the area is strictly prohibited. At the end of each shift, clean the area of visible lead paint contamination by vacuuming with a HEPA filtered vacuum cleaner, wet mopping the area, or cleanup by other appropriate means.
- C. Testing of Demolition Debris: If the Contractor chooses to recycle individual building components and change the owner provided waste designation, the Contractor shall test remaining demolition debris in accordance with WAC 173-303 to determine waste designation. The Contractor is responsible to appropriately test and designate the materials and is responsible for any additional costs associated with, but not limited to, testing, transport, disposal, and reporting.
- D. Disposal of Lead Demolition Waste: The following requirements shall be met for the disposal of lead demolition debris that has been designated a dangerous waste:
  1. Collect lead dangerous waste, scrap, debris, bags, containers, equipment, and lead contaminated clothing that may produce airborne concentrations of lead particles. Label the containers in accordance with 29 CFR 1910.1025.
  2. Handle, store, transport, and dispose of lead or lead dangerous waste in accordance with 40 CFR 260, 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265 and WAC 173-303. Comply with land disposal restriction notification requirements as required by 40 CFR 268.
  3. The Contractor will provide a Generator EPA Identification Number for dangerous waste if required. Waste cannot be transported or disposed without this number.
  4. The Transporter and Disposal Facility must each have an EPA identification number. The Contractor shall submit the name, address, and EPA Identification

## **DIVISION 02 – EXISTING CONDITION**

### **SECTION 02 83 00 – LEAD REMEDIATION**

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Number of the Transporter and Disposal Site to the City prior to the disposal of hazardous waste.

- E. Disposal Documentation: Disposal documentation is required for all waste streams. At a minimum, provide a disposal receipt or manifest for all non-dangerous waste streams. For lead dangerous waste, if any is generated, submit written evidence that the hazardous waste treatment, storage, or disposal facility (TSD), or recycling facility is approved for lead dangerous waste disposal or recycling by the EPA and state or local regulatory agencies. Submit one (1) copy of the completed manifest, signed and dated by the initial transporter in accordance with 40 CFR 262.

**END OF SECTIONS**



## DIVISION 03 – CONCRETE

### SECTION 03 10 00 – CONCRETE FORMING AND ACCESSORIES

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 03 20 00 – Concrete Reinforcement
- B. Section 03 30 00 – Cast-in-Place Concrete

##### 1.02 DESCRIPTION OF WORK

The Work includes furnishing necessary material, labor, and equipment for providing the structural support and physical barriers or forms which control the shape and location of the concrete. Also included in this Section are the requirements for the removal of the forms and their supports.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Concrete Institute ACI 301-20: Specifications for Structural Concrete.
- B. American Concrete Institute ACI 318-19: Building Code Requirements for Structural Concrete and Commentary.
- C. American Concrete Institute ACI 347R-14: Guide to Formwork for Concrete.

##### 1.04 QUALITY ASSURANCE

- A. Design forms, falsework, accessories, and shoring to meet the requirements of the concrete type, sequence of placing, schedule, and other conditions of the Work. Drawings and calculations for forms, falsework, accessories, and shoring designs shall be stamped by a Professional Engineer currently licensed in the state of Washington.
- B. Perform inspection of forms, falsework, accessories, and shoring before casting concrete using workers having at least 5 years of experience with the types of construction involved and the techniques necessary for completion of the Work.

##### 1.05 SUBMITTALS

- A. Submit form, falsework, and shoring drawings and calculations for review prior to executing the work. Drawings shall show details of member sizes, connections, product data, and other related elements including proposed construction joints. The calculations shall clearly state the material weights, lateral pressures, rates of pour, and working loads for form ties, friction collars, wedges, she-bolts, and accessories used in the design.
- B. Form and falsework drawings shall indicate the construction sequence, the methods for release, and the sequence of removal.
- C. Do not construct forms or falsework until the City has reviewed the drawings and calculations. Review by the City does not relieve the Contractor of the responsibility for sufficiency of the forms or falsework.

## **DIVISION 03 – CONCRETE**

### **SECTION 03 10 00 – CONCRETE FORMING AND ACCESSORIES**

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- D. In the event patented systems are used for forms or falsework, submit complete drawings, details, and calculations, for review.

#### **PART 2 - PRODUCTS**

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##### **2.01 GENERAL**

- A. Materials for concrete forms may be new or used. The quality of the materials, not the age or previous usage, will be the determining factor as to their suitability.
- B. All prefabricated forms, whether they are part of a patented system or custom-fabricated, shall be submitted for approval by the Owner prior to assembly or arrival on site. Forms shall be kept in a condition to produce finished work meeting the location, alignment, and surface tolerances specified.

##### **2.02 JOB-BUILT FORMS**

A. Wood Forms:

1. Use framing lumber of standard dimensions and of such quality as to meet the requirements of the applied stresses or loads.
2. Use ply form Grade B-B Plywood for exposed concrete forms.
3. Use exterior-type plywood without splits or knotholes and sanded smooth. Provide plywood with the face grain running perpendicular to the studs or joists. Use vertical or horizontal joints in surfaces of forms used on exposed surfaces. Do not use plywood less than 1/2 inch thick.
4. Shiplap, square-edged boards, or tongue-and-groove sheathing may be used for forming unexposed concrete surfaces.
5. Use metal, fiberglass, or other special form linings where required.

B. Steel Forms:

1. Design and fabricate steel forms to meet the requirements of the member/members to be cast. Use only new materials for steel form construction.
2. For round columns, use forms consisting of a self-supporting metal shell or tube which will give a smooth, even surface. Do not use forms that produce a spiral appearance or those made of wood.

C. Miscellaneous Forms

Use paper, fiberglass, micarta, asphalt-impregnated fiber, and other miscellaneous form materials only if approved by the City prior to construction

##### **2.03 FORM LINERS AND COATINGS**

- A. Line, coat, or treat forms with a suitable release agent or bond-breaker to ensure their timely removal with no damage to the concrete.
- B. Use release agents or bond-breakers that are non-coloring and that do not leave a film on the concrete surface that may inhibit subsequent finishing activities required to attain the prescribed finish.

##### **2.04 FORM TIES AND ACCESSORIES**

- A. Do not use form ties in any concrete pours unless approved by the City.
- B. Do not use wire ties or wood spacers.
- C. Use manufactured items for form ties, with published stress values. Provide form ties with a premeasured, break-back, weakened area so that ties can be removed within 3/4 inch of the concrete surface.

## **DIVISION 03 – CONCRETE**

### **SECTION 03 10 00 – CONCRETE FORMING AND ACCESSORIES**

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- D. Use tie-rods with published stress values. Set back tie-rods for use with she bolts 1-1/2 inches from the concrete surface.
- E. Use corner brackets, friction collars, column clamps, and other specialized accessories in accordance with the manufacturer's recommendations.

#### **2.05 FALSEWORK AND SHORING**

- A. Select and size materials and elements for shoring, falsework, mudsills, or structural staging according to the Contractor's design. Furnish, erect, and brace steel scaffold-type falsework, in accordance with the manufacturer's recommendations.
- B. Establish the capacity of friction-supported forms by tests that are performed by the manufacturer or by independent test results. Conduct tests using the same material and in the same configuration to be used in the Work.

### **PART 3 - EXECUTION**

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#### **3.01 GENERAL**

- A. Set forms and falsework to allow for structural camber plus an allowance for shrinkage and settlement. Conform to the lines and grades indicated on the drawings for the finished concrete. Construct forms to be rigid, unyielding, true to line, level, and sufficiently tight to prevent escape of mortar.
- B. Place forms for openings, embedded objects, and reinforcement at the locations shown on the Drawings. Form and fasten these items securely in position to maintain minimum cover for reinforcement, leaving smooth surfaces, true openings, accurate geometry, etc., after the forms are removed.
- C. Clean forms of material, debris, or other objects and substances deleterious to the concrete, concrete surface, or element, prior to casting.

#### **3.02 FORM INSTALLATION**

- A. Prior to final setting or placing of reinforcing steel, treat forms for exposed concrete with a release agent, bond-breaker, or parting compound. Apply the compound at a rate recommended by the manufacturer, to provide a smooth surface free of dusting action caused by the chemical reaction of the compound.
- B. Immediately remove any release agent or bond-breaker that comes in contact with reinforcement or embedded objects.
- C. Forms may be set with a slight bevel or draft for easy removal, where approved by the City. Use 3/4-inch chamfer strips on exposed inside and outside corners, including the bottoms of abutments and vertical faces, unless otherwise indicated on the drawings.
- D. Provide mortar-tight assembly of forms. Do not permit standing water in the forms. Clean forms before assembly and prior to placing concrete.

#### **3.03 FORM REMOVAL**

- A. Keep forms in place for the minimum length of time shown below, provided the ambient temperature is 40°F or higher.
  - 1. Soffit forms: 7 days
  - 2. Side forms: 3 days
- B. Keep forms in place longer when lower temperatures (40°F) prevail, at the City's discretion. Disregard time periods where the ambient temperature is below 40°F in

## **DIVISION 03 – CONCRETE**

### **SECTION 03 10 00 – CONCRETE FORMING AND ACCESSORIES**

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- determining the length of time forms are to remain in place. A cold-weather concreting plan maybe developed and submitted in accordance with Section 03 30 00 – Cast-in-Place Concrete, at the Contractor' s expense.
- C. In lieu of the above methods for determining the minimum time to keep forms in place, forms may be removed when concrete cylinder tests, according to ACI 318, indicate that a compressive strength greater than or equal to 80 percent of the specified 28-day strength has been reached. Additional concrete cylinder testing for the purpose of establishing the 80 percent threshold level shall be at the Contractor's expense.
  - D. The removal of forms as stipulated herein shall in no case relieve the Contractor of responsibility for the performance, acceptability, or finish of the Work.
  - E. All form and falsework removal shall be accomplished in a manner that prevents damage to the concrete, concrete finishes, and adjacent work elements.

**END OF SECTION**

## **DIVISION 03 – CONCRETE**

### **SECTION 03 20 00 – CONCRETE REINFORCING**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 03 10 00 – Concrete Formwork
- B. Section 03 30 00 – Cast-in-Place Concrete
- C. Section 05 50 00 – Metal Fabrication

##### **1.02 DESCRIPTION OF WORK**

The Work includes the requirements for manufacture, detailing, cutting, bending, transporting, handling, and placing of reinforcing steel and associated items required or indicated on the drawings.

##### **1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Concrete Institute ACI 301-20: Specifications for Structural Concrete.
- B. ACI SP-66(20): ACI Detailing Manual (including ACI 315R-18)
- C. American Concrete Institute ACI 318-19: Building Code Requirements for Structural Concrete and Commentary.
- D. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology
- E. American Welding Society (AWS) D1.1 Structural Welding Code – Steel
- F. AWS D1.4 Structural Welding Code – Reinforcing Steel
- G. Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice CRSI MSP)
- H. Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge and Municipal Construction M41-10
- I. Washington Association of Building Officials (WABO) Standard No. 27-13, WABO Welder and Welding Operator Performance Qualification Standard for Structural Steel, Sheet Steel, and Reinforcing Steel

##### **1.04 QUALITY ASSURANCE**

- A. Provide a supervisor for the work meeting the following minimum qualifications and requirements:
  - 1. Have a minimum of 5 years' experience in placement of reinforcing for concrete structures
  - 2. Responsible to direct this portion of the Work
  - 3. Present at all times during execution of this portion of Work
  - 4. Thoroughly familiar with the type of materials being installed
  - 5. Skilled in the required methods for installation

## **DIVISION 03 – CONCRETE**

### **SECTION 03 20 00 – CONCRETE REINFORCING**

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- B. Qualify welders in accordance with AWS D1.4 and WABO Standard 27-13 for the weld procedures and positions to be performed.
- C. Inspection and Testing: Provide all necessary assistance to the City for carrying out inspections and test at no additional cost to the City. The City will provide for necessary inspection and testing as required, which shall be determined by the City. The City will make test results available can provide them to the Contractor upon written request by the Contractor.

#### **1.05 SUBMITTALS**

- A. Detailed shop drawings that are coordinated and checked for reinforcing steel prior to casting concrete. Do not deliver steel reinforcing to the site prior to approval of the shop drawings. Include, but not be limited to, material specifications, bar lengths, bar bending schedules, order lists, splice lengths, and proposed splice locations on the detailed shop drawings.
- B. Mill certificates for each heat of reinforcing steel, indicating specification compliance, yield strength, ultimate strength, and chemistry of steel to be furnished.
- C. Qualified weld procedure specification (WPS), including information contained in Annex A of AWS D1.4.
- D. Weld procedure and welder qualification test reports.
- E. Headed reinforcement details and manufacturer data sheets.
- F. Daily inspection reports of reinforcing steel placement including weld observations, weld repairs, and weld tension test results.

### **PART 2 - PRODUCTS**

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#### **2.01 HANDLING**

- A. Protect from damage reinforcing steel and embedded items before, during, and after installation in the work. Protect from damage the installed work and materials of other trades.
- B. Provide reinforcing steel and embedded items that are new and free from rust, grease, oil, wax, paint, soil, dirt, kinks, bend, or other defects. Store in a manner to prevent fouling with bond-breaking and deleterious coatings.
- C. Maintain reinforcing steel identification after the bundles are broken.
- D. In the event of damage, immediately make repairs and replacements necessary as directed by and at no additional cost to the City.

#### **2.02 REINFORCING STEEL**

- A. Reinforcing bars: ASTM A 706, Grade 60, deformed
- B. Welded headed studs and shear connectors: AWS D1.5 Chapter 7.

#### **2.03 OTHER MATERIALS**

Provide other materials, not specifically described but required for complete and proper installation of reinforcement, subject to approval by the City.

## DIVISION 03 – CONCRETE

### SECTION 03 20 00 – CONCRETE REINFORCING

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#### PART 3 - EXECUTION

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##### 3.01 GENERAL

- A. Prior to installation of this section, carefully inspect the installed work of other trades and verify that such work is complete to the point where reinforcement installation may commence.
- B. Conform to ACI 318 for details of bending, placing, and splicing of reinforcing steel, except as modified herein.

##### 3.02 REINFORCING STEEL BARS

- A. Order Lists: Before ordering material, provide order lists, bending diagrams, and reinforcement placement drawings to the City for approval. Conform to the CRSI MSP. Do not order material until approved. Approval by the City shall in no way relieve the Contractor of responsibility for the correctness of such lists, diagrams, and drawings.
- B. Fabrication: Bend bars cold to the shapes indicated on the drawings unless otherwise approved by the City. Do not field-bend bars partially embedded in concrete except as indicated on the drawings or as approved by the City. Make bends and hooks in accordance with the applicable portions of the CRSI MSP.
- C. Placing and Fastening:
  - 1. Perform placing and fastening using qualified personnel. Place reinforcing steel and embedded items accurately and hold firmly in the position indicated on the drawing during the placing and setting of concrete. Tie bars at each intersection.
  - 2. Provide concrete cover to reinforcement as indicated on the Drawings.
  - 3. Maintain the distance from the forms to the reinforcement for concrete cover by means of stays, blocks, ties, hangers, or other approved supports.
    - a. Use precast mortar blocks of compressive strength not less than 5,000 pounds per square inch at the soffits of forms for holding reinforcement from contact with the forms. Provide mortar blocks of a shape and with dimensions approved by the City. Metal chairs fully coated with plastic may be used if approved by the City.
    - b. Separate layers of bars by plastic chairs, by precast mortar blocks of compressive strength not less than 5,000 pounds per square inch, or by other devices approved by the City.
    - c. Maintain cover to vertical for faces using plastic chairs or by precast mortar blocks of compressive strength not less than 5,000 pounds per square inch.
    - d. Provide a minimum spacing between bars of not less than one bar diameter or 1 inch minimum, but not less than 1-1/3 times the maximum size of the coarse aggregate.
  - 4. In the event that conduits, anchor bolts, piping, inserts, sleeves, embedded objects, headed studs, or other items interfere with placing reinforcement as indicated on the Drawings, or as otherwise required, immediately contact the City and obtain approval of a new procedure from the City before placing concrete.

##### 3.03 SPLICING

Do not splice bars. Furnish reinforcement in the full lengths indicated on the Drawings.

## DIVISION 03 – CONCRETE

### SECTION 03 20 00 – CONCRETE REINFORCING

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#### 3.04 WELDING OF REINFORCEMENT BARS

- A. Inspect welds and test selected welds as required.
- B. Weld reinforcement only where indicated on the drawings.
- C. Weld reinforcement using welders certified by the Washington Association of Building Officials (WABO) and conforming to AWS D1.4 except that weld size and reinforcement shall be as shown on the drawings.
- D. Use either shielded metal arc or flux core arc (inner shield only) welding processes. Remove slag from each weld.
- E. The City will provide an AWS-certified welding inspector (CWI), to witness welding procedures and welder qualification tests. Tests will be conducted in accordance with Section 6 of AWS D1.4. Include a longitudinal tension test and macro-etch test. Provide welding procedures and welder qualification tests. Do not start welding on a production basis until qualified welding procedures have been established by the Contractor and approved by the City.
- F. Conform to Section 5 of AWS D1.4 for filler metal, preheat, and inter pass temperature requirements.
- G. Follow Section 5.8 of AWS D1.4 for exposure times for low hydrogen coated electrodes.
- H. Establish an ongoing inspection and verification program in which visual inspection and tensile tests shall be performed for quality assurance on welded connections with reinforcing steel.
  - 1. As a minimum, visually inspect all welds. Reject any weld failing visual inspection. Repair rejected welds according to AWS D1.4 or replace at the Contractor's expense.
  - 2. Rejected welds may be further examined by a certified testing agency approved by the City and at the Contractor's expense. If welds prove to be of unacceptable quality, remove and replace the defective welds at no additional cost to the City. If welds prove to be of acceptable quality, then the additional examination will be at the City's expense.
  - 3. As a minimum, provide and tension test one sample connection coupon initially and then up to two additional production connections at locations identified by the City, and at no additional cost to the City.
  - 4. In the event that a sample connection fails testing, identify all production welds made by the welder responsible for the failing sample to the City. Consider all production welds by the welder to be suspect production welds. Demonstrate, at no additional cost to the City, by further testing, inspection, or other industry standard techniques that suspect production welds are sufficient and free of defects. Failure of suspect production welds to meet additional testing or acceptability requirements shall be cause for rejection by the City.
  - 5. Include weld inspection observations, descriptions of weld repairs if repairs are required, and weld tension test results in inspection reports provided to the City. Provide reports to the City prior to placing concrete. Do not place concrete until City's review is complete.
- I. The City will inspect welds at its discretion and its expense. Provide access to the City for these inspections at no additional cost to the City.



## **DIVISION 03 – CONCRETE**

### **SECTION 03 20 00 – CONCRETE REINFORCING**

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#### **3.05 CLEANING REINFORCING BARS AND EMBEDDED ITEMS**

Reinforcing steel and embedded items, at the time concrete is placed, shall be free from loose rust or mill scale, oil, paint, and other coatings, which will destroy, impair, or reduce the bond between steel and concrete.

#### **3.06 INSPECTION**

Notify the City at least 48 hours in advance of a concrete pour, and provide access for inspection of reinforcing steel, embedded items, and welded connections with reinforcing steel by a City provided inspector prior to placement of concrete, at no additional expense to the City. Concrete placed in violation of this provision will be rejected. Remove rejected concrete, place new reinforcing steel and embedded items, and cast new concrete at no additional expense to the City.

<b>END OF SECTION</b>
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## DIVISION 03 – CONCRETE

### SECTION 03 30 00 – CAST-IN-PLACE CONCRETE

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 03 10 00 – Concrete Formwork
- B. Section 03 20 00 – Concrete Reinforcement
- C. Section 03 60 00 – Grouting

##### 1.02 DESCRIPTION OF WORK

The extent and location of the “Cast-in-Place Concrete” work is indicated on the drawings. The work includes the requirements for providing cast-in-place concrete and associated work in conformance with these specifications and as indicated on the drawings.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Concrete Institute ACI 301-20: Specifications for Structural Concrete.
- B. ACI 305.1-14 (20): Specification for Hot Weather Concreting.
- C. ACI 306.1-1990 (Reapproved 2002): Specification for Cold Weather Concreting
- D. ACI 308.1-11: Specification for Curing Concrete
- E. ACI 318-19: Building Code Requirements for Structural Concrete and Commentary
- F. American Concrete Institute ACI 318-19: Building Code Requirements for Structural Concrete and Commentary.
- G. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology
- H. Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge and Municipal Construction M41-10

##### 1.04 QUALITY ASSURANCE

- A. Concrete work shall conform to the requirements of ACI 301, unless otherwise noted in the drawings or the specifications.
- B. Inspection and Testing: Provide all necessary assistance to the City for carrying out inspections and test at no additional cost to the City. The City will provide for necessary inspection and testing as required, which shall be determined by the City. The City will make test results available can provide them to the Contractor upon written request by the Contractor.
- C. Qualifications of Supplier: Provide ready-mixed concrete from plants approved and certified by the National Ready Mix Concrete Association (NRMCA) or qualified by WSDOT. Batch ready-mixed concrete in accordance with the applicable portions of ASTM C 94.

## **DIVISION 03 – CONCRETE**

### **SECTION 03 30 00 – CAST-IN-PLACE CONCRETE**

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- D. Provide at least one supervisor for the Work meeting the following minimum qualifications and requirements:
  - 1. Have a minimum of 5 years' experience in placement of reinforcement for concrete structures
  - 2. Responsible to direct this portion of the Work
  - 3. Present at all times during execution of this portion of Work
  - 4. Thoroughly familiar with the type of materials being installed
  - 5. Skilled in the required methods for installation
- E. Provide trained and experienced journeyman concrete finishers having at least 5 years' experience to finish exposed surfaces. Maintain consistency in workmanship throughout colored concrete work.
- F. Installer Qualifications: Colored concrete work shall be performed by firm with five years' experience with work of similar scope and quality.

#### **1.05 SUBMITTALS**

- A. Documentation demonstrating the qualifications and experience of supervisors and directors of work, as described above.
- B. Proposed concrete design mixes, indicating material contents per cubic yard of concrete, and including certificates of compliance.
- C. Written evidence that the ready-mix concrete plant is approved and certified by the NRMCA and other organizations as required by this Section.
- D. Test certificates for compressive strength, yield, air content, and slump of the proposed concrete mix. Report strength test results in accordance with ACI 301, Section 1.7.
- E. Manufacturer's name, address, catalog number, and specifications for proposed admixtures, concrete bonding agents, curing compounds, fiber reinforcement, etc.
- F. Identify aggregate supply pit names and locations. Submit certificates of specification compliance for materials to be used including aggregate alkali-silica reactivity (ASR).
- G. Curing plan including curing methods and materials. Submit detailed plans for concreting in ambient temperatures below 40 degrees F. Describe the specific methods and procedures used for substrate preparation, concrete placement, curing, and protection. Provide specific references to ACI 305.1, ACI 306.1, ACI 308.1, and WSDOT.
- H. Shop drawings showing pour sequences, construction joints, expansion joints, etc.
- I. Concrete delivery tickets for each truck delivered to the site. Submit delivery tickets to the City before unloading at the site and in accordance with ASTM C 94, Section 14.
- J. Proposed method and description of the concrete finish for each surface
- K. broom finish to be used for walking surfaces.
- L. Proposed patching methods and materials for concrete defects.

## DIVISION 03 – CONCRETE

### SECTION 03 30 00 – CAST-IN-PLACE CONCRETE

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#### PART 2 - PRODUCTS

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#### 2.01 CONCRETE

##### A. General

1. Batch and mix concrete, unless otherwise specifically permitted by the City, at the approved ready-mix plant.
2. Batch, mix, and deliver ready-mix concrete in accordance with ASTM C 94.
3. Proportion cast-in-place concrete on the basis of field experience or laboratory trial mixtures according to ACI 318, Section 1.9.

##### B. Cementitious Materials:

1. Use Portland cement with a tricalcium aluminate (C3A) content between 5 percent and 8 percent.
2. Provide Type I-II or Type II Portland cement, conforming to ASTM C 150 and to WSDOT Paragraph 9-01.2(1) in mixes without fly ash.
3. Provide Type I or Type I-II Portland cement conforming to ASTM C 150 in mixes with fly ash.
4. Provide fly ash conforming to ASTM C 618, Type F, with the added provisions that the loss on ignition shall not exceed 2 percent, and that the fly ash is stored in a separate silo from the cement.

##### C. Aggregates:

1. Conform to ASTM C 33. Use coarse and fine aggregates consisting of hard, tough, durable particles free from foreign and deleterious materials. Store in such a manner as to prevent segregation, excessive breakage, and the introduction of foreign material.
2. Evaluate and test fine and coarse aggregates to be used in concrete for alkali-aggregate reactivity in accordance with ASTM C 1260 or ASTM C 1293. Test both coarse aggregate size groups if from different sources. Test results of the combination shall have a measured expansion equal to or less than 0.10 percent at 16 days after casting when aggregates are tested in accordance with ASTM C 1260 or 0.04 percent for aggregates tested in accordance with ASTM C 1293 at one year.
3. For grading, conform to WSDOT Paragraph 9-03.1(5) Combined Aggregate Gradation for Portland Cement Concrete. Maximum nominal aggregate size shall be  $\frac{3}{4}$  inch, unless approved by the City and as noted in this Section.
4. Limit the maximum size of coarse aggregate to the smaller of three fourths of the minimum clear spacing between the following.
  - a. Reinforcing bars
  - b. Reinforcing bars and side forms
  - c. Reinforcing bars and bottom forms
  - d. Reinforcing bars and top of concrete

##### D. Water:

Conform to the quality requirement so WSDOT Paragraph 9-25.1

##### E. Admixtures:

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1. Use admixtures supplied by one manufacturer and approved by the City.
2. Conform to ASTM C 260 for air-entraining admixtures. Use dosage rates be in accordance with the manufacturer' s recommendations to meet the air content specified herein.
3. Conform to ASTM C 494 for water-reducing admixtures. Use dosage rates in accordance with the manufacturer' s recommendations.
4. Use a Type A, D, F, or G water-reducing admixture. Set the amount to control the desired workability and water/cementitious material ratio and be within the manufacturer' s recommended range.

#### 2.02 OTHER MATERIALS

Provide materials not specifically described but required for a complete and proper installation of cast-in-place concrete, subject to the approval of the City.

#### 2.03 MIX PROPORTIONS AND STRENGTH

- A. Select mix proportions to produce a mixture that will readily work into corners, sides, and angles of the forms, around reinforcement and embedded items, with no segregation, and prevent free water from collecting on the surface.
- B. Select in accordance with ACI 301.
  1. Test data representing thirty recent consecutive tests for each design shall be submitted to establish the standard deviation used in ACI 301 Section 4.2.3.
  2. The criteria for acceptance of submitted tests shall be accordance with ACI 301 Section 4.2.3.2(a). The second sentence shall be amended to read, "...class of concrete within 500 psi of that specified for the work", instead of 1000 psi.
  3. Where 30 recent consecutive tests are not available, the standard deviation may be determined by records based on no less than 15 tests as described in ACI 301 Section 4.2.3.2.
  4. Where no previous data are available, the mix or mixes shall be overdesigned in accordance with ACI 301 Section 4.2.3.3(b).
  5. When consecutive test data have been established during the project the overdesign criteria may be relaxed in accordance with ACI 301 Section 4.2.3.6.
  6. Do not deviate from any reviewed design mix without City approval.
- C. Unless otherwise indicated, concrete minimum 28-day compressive strengths are shown on the drawings.
- D. Concrete shall meet the following requirements:
  1. Minimum Cementitious Materials:  
Cement without fly ash: 611 lbs/cy  
Cement with fly ash: 564 lbs/cy and 100 lbs fly ash/cy
  2. Maximum Water/Cementitious Materials Ration (by weight, including free moisture on aggregate): 0.40
  3. If fly ash is used, the water/ cementitious materials ratio shall be calculated as the weight of water divided by the weight of cement plus the weight of the fly ash.
  4. Air Content: 3.5 percent to 6.5 percent

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5. Slump: Maximum 5 inches with Type A or D admixtures and 8 inches with Type F or G admixtures. Select the slump to enhance workability without violating the maximum water/ cementitious materials ratio requirement.

### **PART 3 - EXECUTION**

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#### **3.01 PREPATORY WORK**

##### **A. General:**

1. Prior to casting, inspect the installed work of other trades and verify it is complete to the point where this installation may commence.
2. Verify that items to be embedded in concrete are in place, properly oriented, located, and secured.
3. Verify that concrete may be placed to the lines and elevations indicated on the drawings with required clearances for reinforcement.
4. Thoroughly clean and remove wood and other debris, sawdust, tie wire cuttings, and other deleterious material from areas where concrete will be placed.
5. Bend back tie wire ends so they do not encroach into the specified clear cover of the concrete.
6. Thoroughly wet concrete forms which have not been treated with oils, waxes, or other bond breakers shall be prior to placing concrete. Provide 1/4-inch amplitude on the roughened surface, continuous across the entire surface, unless otherwise indicated on the drawings.
7. Clean and roughen existing concrete or concrete from previous pours to provide a bondable surface.
8. Clean transporting and handling equipment of hardened concrete and other debris.

B. In the event of deviations or discrepancies, immediately notify the City. Do not proceed with installation until deviations and discrepancies have been fully resolved.

C. Notification: Notify the City at least 48 hours in advance of any concrete pour. The City will provide independent special inspections and material testing services. Notify the City when inspection by the Contractor is complete. In the event of any discrepancy, immediately notify the City. Do not proceed with installation until discrepancies have been fully resolved.

#### **3.02 TRANSPORTING AND PLACING CONCRETE**

##### **A. Placement:**

1. Do not use concrete that does not reach its final position in the forms within 1-1/2 hours after the addition of cement. During hot weather, reduce this time limit in accordance with ACI 305.1.
2. Place concrete as soon as possible after mixing. Do not re-temper or remix concrete which has developed initial set or partially hardened.
3. Uses means and methods of placing concrete that do not allow segregation of the aggregates or displacement of reinforcement or embedded objects.
4. When using a concrete pump as the placing system, discard the pump priming slurry before placement into the forms. Initial acceptance testing may be delayed until the pump priming slurry has been eliminated. Do not use pumps that allow free water to flow past the piston. Do not use aluminum conduits or tremies.

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5. Place concrete in continuous horizontal layers, or lifts, not exceeding 18 inches and compact so that there will be no line of separation between layers. Carefully fill each part of the forms by depositing concrete directly in its final destination.
  6. When concrete must be dropped more than five feet into the forms, deposit it through a sheet metal or other approved conduit. Use the same conduit to place concrete in sloping forms or in other locations, as directed by the City, to prevent concrete from sliding around reinforcing steel or other embedded objects.
  7. Use means and methods for depositing and compacting concrete that produce compact, dense, impervious concrete with the required surface finishes and no segregation. Remove defective concrete as directed by the City and at no additional cost to the City.
- B. Hot/Cold Weather Placement: Do not place concrete on or against frosted reinforcing steel or forms. Do not mix or place concrete while the atmospheric temperature is below 40 degrees Fahrenheit. If air temperature exceeds 90 degrees Fahrenheit, provide water spray or other approved methods to cool contact surfaces to less than 90 degrees Fahrenheit. Perform hot and cold-weather concrete placement in accordance with ACI 305.1 and ACI 306.1.
- C. Consolidation of Concrete:
1. Provide suitable internal vibrators for use in compacting concrete. use vibrators of the type designed to be placed directly in the concrete, with a frequency of vibration not less than 7,000 impulses per minute when in actual operation.
  2. Provide a level of vibration such that the concrete becomes uniformly plastic. Insert vibrators to a depth sufficient to vibrate the bottom of each layer effectively, but do not penetrate partially hardened concrete. Do not apply the vibrators directly to reinforcing steel which extends into partially hardened concrete. Use intervals between points of insertion between 2 feet and 3 feet.
  3. Do not continue vibration in any one spot such that pools of cementitious materials or cementitious materials and sand are formed. In vibrating and finishing top surfaces which are exposed to weather or wear, avoid drawing water or laitance to the surface. In relatively high lifts, provide a top layer that is comparatively shallow and a concrete mix as stiff as can be effectively vibrated into place and properly finished.
  4. Do not use vibrators to transport or move concrete inside the form.
  5. Supply a sufficient number of vibrators to effectively vibrate the concrete placed. Perform hand-tamping or rodding wherever necessary to secure a smooth and dense concrete on the outside surfaces.

### 3.03 CONSTRUCTION JOINTS

- A. Joints and stoppages, except as specifically shown on the drawings, shall conform to ACI 301 and 318. Do not use wire mesh or similar materials.
- B. Submit requests for additional, deleted, or relocated construction joints to the City. Locate joints so as not to impair the strength of the concrete or structure and only as approved by the City. Changes as a result of such requests shall be at no additional cost to the City.
- C. Thoroughly clean and roughen joint surfaces and remove loose concrete, gravel, sediment, laitance, and other deleterious substances.

## DIVISION 03 – CONCRETE

### SECTION 03 30 00 – CAST-IN-PLACE CONCRETE

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- D. At horizontal and vertical surfaces of construction joints between concrete pours, thoroughly wet and condition surfaces to a saturated surface dry (SSD) condition for a minimum twelve- hour period immediately prior to placing fresh concrete.
- E. At horizontal surfaces of construction joints between concrete pours, provide a clean roughened surface with a ¼- inch amplitude across the surfaces. Grooves ½- inch to 1-inch wide, ¼- inch to 3/8-inch deep, spaced at twice the width of the groove may be permitted if approved by the City.
- F. At vertical surfaces of construction joints between stages of concrete, provide a clean roughened surface with a ¼- inch amplitude across the surfaces.

#### 3.04 CURING CONCRETE

- A. Cure concrete in accordance with WSDOT and the requirements of this Section. Consider concrete on the bridge as bridge deck in WSDOT.
- B. Maintain concrete above 40 degrees Fahrenheit and in a moist condition for at least the first seven days (168 hours) after placement except for concrete on the bridge (slab each end and topping). Maintain concrete on the bridge above 40 degrees Fahrenheit and in a moist condition for at least the first fourteen days (336 hours) after placement.
- C. Protect concrete from damage and accelerated drying. Do not allow excessive heat near the concrete at any time.
- D. Continue curing methods without interruption for the prescribed duration of the curing period.

#### 3.05 FINISHING CONCRETE

- A. Keep exposed surfaces, unless specifically noted otherwise, free from local bulging. Remove ridges or lips to leave a smooth, flat surface. Provide patching mortar, if used, of the same color as the surrounding concrete. Add white Portland cement as needed for color matching with the surrounding concrete.
- B. Protect finished surfaces from damage, stains and abrasion.
- C. Vertical Surfaces:
  - 1. Immediately after removal of forms or form linings, inspect the concrete surfaces for defects and irregularities.
  - 2. Repair defects, defective concrete, and tie rod holes immediately after the forms are removed unless otherwise directed by the City. Chip out and remove exposed tie wires. Repair in accordance with Section 03 60 00 – Grouting.
- D. Horizontal Surfaces:
  - 1. Horizontal surfaces that will carry additional concrete are defined as construction joints. Thoroughly cleaned and roughened to an amplitude of 1/4 inch. Roughen using methods in accordance with the construction permits and approved by the City, to expose sound concrete without undercutting the larger aggregate particles or cracking the concrete to remain.
  - 2. Provide a broom finish to the concrete at walking surfaces in accordance with ACI 301 unless otherwise directed by the City.
- E. Defects:
  - 1. Repair surfaces or edges damaged during construction at no additional cost to the City. Repair defects on top, side, and bottom surfaces.



## DIVISION 03 – CONCRETE

### SECTION 03 30 00 – CAST-IN-PLACE CONCRETE

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2. Surface defects include honeycomb, rock pockets, spalls, chips, air bubbles, voids, pinholes, bug holes, and indentations greater than or equal to 1/4 inch in depth, or greater than or equal to 1/2 inch in width, length, or diameter. Chip out defects to reveal sound concrete and patch according to Section 03 60 00 – Grouting.
3. Repair surface cracks greater than or equal to 0.006-inch-wide in accordance with Section 03 60 00 – Grouting.
4. Surface irregularities include embedded objects, embedded debris, lift lines, sand lines, bleed lines, segregation, form pop-outs, fins, form leakage, texture irregularities, stains and other discolorations that cannot be removed by water blast cleaning. Repair these defect as specified in this Section unless otherwise directed by the City.

#### 3.06 TESTING

Testing of concrete will be performed by an accredited testing agency retained by the City. Methods of sampling, testing, evaluation, and acceptance will conform to ACI 301. Assist the City with access to collect samples.

- A. Testing as described above will be at the City's discretion and in no way relieves the Contractor of any obligation.
- B. The Contractor shall perform its own tests and institute a quality assurance program to assure the specified quality of material and work are provided.
- C. The Contractor shall perform is own tests to assure that the work progresses without delay.
- D. Additional testing and inspection required because of changes in materials, proportions, or procedures requested by the Contractor shall be completed by the Contractor at no additional cost to the City.
- E. Additional testing of materials or concrete that fail to meet contract document requirements (including ACI, ASTM, or WSDOT publications) referenced herein shall be completed by the Contractor at no additional cost to the City.
- F. Tests performed by the City will be done at no cost to the Contractor, except as noted below.
  1. Additional testing and inspection required because of changes in materials, proportions, and procedures requested by the Contractor.
  2. Additional testing of materials or concrete when either fails to meet the specification requirements when tested in accordance with ACI standards and specifications outlined and the appropriate ASTM standards contained therein.

<b>END OF SECTION</b>
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## DIVISION 03 – CONCRETE

### SECTION 03 50 00 – CONCRETE FINISHING

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

A. Section 03 30 00 – Cast-in-Place Concrete

##### 1.02 DESCRIPTION OF WORK

The Work includes: Ground, chemically stained sealed concrete floor finish systems, including joint sealants, and ground, sealed concrete floor finish systems (not stained).

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

A. American Concrete Institute ACI 117-10: Specifications for Tolerances for Concrete Construction and Materials and Commentary.

B. American Concrete Institute ACI 302.1R-15: Guide to Concrete Floor and Slab Construction.

C. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology

##### 1.04 DEFINITIONS

A. Cut and Shine Levels:

1. Cut Level (Depth of cut):
  - a. Grade 1 – cream finish
  - b. Grade 2 – light exposure of course aggregates
  - c. Grade 3 – Heavy exposure of course aggregates
2. Shine Level:
  - a. Class 1 – 400 grit polish (low gloss)
  - b. Class 2 – 800 grit polish (medium gloss)
  - c. Class 3 – 1500 grit polish (high gloss)

##### 1.05 ADMINISTRATIVE REQUIREMENTS

A. Coordination:

1. See Section 03 30 00 – Cast-in-Place Concrete, for scheduling and coordinating work of this section with cast-in-place concrete work, including broadcasting and seeding aggregate fines and sands troweling of concrete finish, and moisture curing of concrete slab. Do not permit use of curing compounds on slabs receiving work required in this section.
2. Coordinate where possible to finish work of this section prior to construction of vertical obstructions due to difficulty of brining floor finish flush to walls and obstructed areas.

## **DIVISION 03 – CONCRETE**

### **SECTION 03 50 00 – CONCRETE FINISHING**

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#### **B. Pre-installation Conference:**

1. Attendance: Contractor, installer, City project manager or representative, artisan/installer, manufacturer's representative, concrete finisher, and those requested to attend.
2. Meeting Time: Minimum 2 weeks prior to beginning work of this section and work of Section 03 30 00—Cast-in-Place Concrete, and other related sections affecting work of this section.
3. Location: Project Site

#### **1.06 SUBMITTALS**

##### **A. Shop Drawings:** Shop drawings shall show the extent of each type of concrete finish.

##### **B. Product Data:**

1. Submit manufacturer's complete technical data sheets for each type of concrete finish required under this Contract Task Order.
2. Submit product data for each grinding machine, including all types of grinding heads, dust extraction system.

##### **C. Color Samples:** Minimum of three (3), samples measuring eight (8) inch square of color finish on concrete substrate, matching what is specified in the Contract Documents.

##### **D. Manufacturers instructions:** Application instructions, special procedures, and conditions requiring special attention.

##### **E. Certificate:** Written certification, signed by the manufacturer's representative, stating the applicator as trained and qualified to perform work of this section using the manufacturer's products with qualification criteria.

##### **F. Maintenance Instructions:** Include instruction for maintaining the flooring.

##### **G. Extra Stock Materials:** Furnish 5 gallons each for the following:

1. Stripping and cleaning agents
2. Maintenance top coat.

#### **1.07 QUALIFICATIONS**

##### **A. Applicator:**

Able to document a minimum of 10 years with a minimum of 6 successful commercial quality concrete floor finishing projects comparable to the work on this Contract Task Order.

##### **B. Field Samples as required by the City:**

1. Locate a concrete test slab and apply finishing color and treatment as accepted by the City.
2. Provide a 9 square foot mock-up slab for each concrete surface and color.
3. Do not begin work of this section until after inspection is complete and system is accepted by the City.
4. Protect and maintain accepted field sample as standard of quality for the work of this section.
5. Do not incorporate accepted field samples into the work of this section.

## DIVISION 03 – CONCRETE

### SECTION 03 50 00 – CONCRETE FINISHING

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6. Maintain approved mock-up as standard for work of this section.

#### 1.08 DELIVERY, STORAGE, AND HANDLING

- A. Conform to the manufacturer's instructions.
- B. Deliver the products packaged in manufacturer's packaged and sealed containers, with manufacturer's identifying labels intact.
- C. Do not use liquid based staining products exposed to freezing conditions.

#### 1.09 FIELD CONDITIONS

- A. Ambient Temperature: Conform to manufacturer's instructions.
- B. Concrete Slab Curing:
  1. Moisture cure, using moisture-retentive, non-staining curing paper or film for minimum 7 days and as specified Section 03 30 00—Cast-in-Place Concrete.
  2. Do not apply liquid curing compounds to concrete floors, except as instructed by manufacturer and accepted by City as part of work of this section.
  3. Cure slab minimum 28 days, or as instructed by manufacturer, prior to beginning work of this section.

## PART 2 - PRODUCTS

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### 2.01 PRODUCTS

- A. All products used for concrete finishing shall be from a single manufacturer and designed to work together for the desired finish. Products for concrete finishing shall have the following components:
  1. Solvent-based liquid dye concentrate to color the concrete surface
  2. Lithium-based densifier to improve concrete strength and minimize dusting
  3. Finishing guard product to protect against staining and enhance the shine
- B. An acceptable product for Hallways includes the following product:
  1. SCOFIELDÒ Formula One™ Polished Concrete System for Architectural Floors by SIKA USA (<https://usa.sika.com/>)
    - a. SCOFIELDÒ Formula One™ Liquid Dye Concentrate
    - b. SCOFIELDÒ Formula One™ Lithium Densifier MP
    - c. SCOFIELDÒ Formula One™ Guard-W Concentrate
    - d. Other products meeting the specific requirements as accepted by the City
- C. An acceptable product for Cafeteria includes the following product:
  1. SCOFIELDÒ Formula One™ Polished Concrete System for Architectural Floors by SIKA USA (<https://usa.sika.com/>)
    - a. SCOFIELDÒ Formula One™ Liquid Dye Concentrate
    - b. SCOFIELDÒ Formula One™ Lithium Densifier MP
    - c. SCOFIELDÒ Formula One™ Guard-W Concentrate
    - d. Other products meeting the specific requirements as accepted by the City

## **DIVISION 03 – CONCRETE**

### **SECTION 03 50 00 – CONCRETE FINISHING**

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- D. Interior Semi-Rigid Joint Filler: Polyurea, USDA approved, meeting the requirements of ASTM D 2240, with a minimum Shore A 75-85, and color as accepted by the City from an approved mock up.

#### **2.02 EQUIPMENT**

All equipment used for concrete finishing shall furnished by the Contractor to obtain the required finish of the concrete and prevent concrete dust from escaping into interior spaces.

- A. 3-head or 4-head counter rotating variable speed floor grinding machine with at least 600 pounds down pressure.
- B. Dust extraction system, pre-separator, and squeegee attachments with minimum flow rating of 322 cubic feet per minute.
- C. Grinding heads: Metal bonded: as required to cut the floor to the Grade specified.
  - 1. Resin bonded: as required to refine and shine the floor to the Class specified
- D. Grinding pads for edges: Metal bonded: to match requirements from C.
  - 1. Resin bonded: to match requirements from C.
- E. Hand grinder with dust extraction equipment and pads.

#### **PART 3 - EXECUTION**

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##### **3.01 PRE-APPROVED APPLICATORS**

- A. Diamond Polishing Systems  
(253) 770-0508  
8801 Canyon Road East  
Puyallup, WA 98371

##### **3.02 EXAMINATION**

- A. Concrete Surface:
  - 1. Clean, smooth and flat to specified tolerances.
  - 2. Free of chemicals, acids, curing compounds and other substances that may inhibit application of products specified by this section, including penetration of stains.

##### **3.03 PREPARATION:**

- A. Protect surfaces not receiving work associated with this section
  - 1. Seal off adjacent building areas and cover adjacent work to limit air-born dust migration from settling on surfaces and polluting other parts of the building.
  - 2. Take measures to prevent overspray from staining other finished surfaces.
- B. Remove protective coverings from concrete slab and rinse with water to remove residue, dirt, dust, and particulates. Perform additional cleaning of concrete surface to remove oil, stains, grease, adhesives, water repellants, oils, and other substances that may be detrimental to work of this section.
- C. Perform all patchwork prior to grinding the concrete floor.

##### **3.04 INSTALLATION**

- A. Cut Level shall be Grade 1 – cream finish.

## DIVISION 03 – CONCRETE

### SECTION 03 50 00 – CONCRETE FINISHING

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- B. Shine Level shall be Class 1 – 400 grit – low gloss finish.
- C. Applicator shall examine the areas and conditions under which work of this section will be provided and the General Contractor shall correct conditions detrimental to the timely and proper completion of the work and the Applicator shall not proceed until unsatisfactory conditions are resolved.
- D. Grind the concrete floor to within 2 – 3 inches of walls with appropriate Metal bonded diamonds removing high spots, imperfections, contaminants, mastics, and bond breaking chemicals. Cross grind at 90 degree angles to achieve uniform scratch patterns at each grinding grit level and desired concrete aggregate exposure.
- E. Apply material approved by the City for color effects in accordance with the drawings and the manufacturer’s recommended guidelines.
- F. Fill construction joints and cracks with filler products as specified in accordance with manufacturer’s instructions colored to match (or contrast) with concrete color as specified by architect.
- G. Dilute densifier 1:1 with fresh water then apply using a pump sprayer at a rate of 200 - 400 square feet per gallon. Using a stiff, long bristled broom, work the material in to the slab. If any material collects in low spots, use the broom to push it out and spread it around. Cover the entire area liberally and keep wet with densifier for 20 to 30 minutes. During this time-frame, retreat any areas that dry out. After 30 minutes, rinse and squeegee excess material off the floor. An auto scrubber works well for this application. Allow 12 to 24 hours for full cure.
- H. Continue grinding and honing the floor to within 2 – 3 inches of walls with any remaining metal bonded diamonds grinding 90 degree angles from each previous grind and removing all the scratches from the previous grit. Vacuum the floor thoroughly after each grind using a squeegee vacuum attachment.
- I. Grind the edges with the appropriate metal bonded diamond pads removing all of the scratches from the previous grit. Vacuum the floor thoroughly after each grind using a squeegee vacuum attachment.
- J. Polish the floor with resin bonded diamond pads until reaching one set of diamonds BELOW the specified Class— first polishing the edges (if specified) with pads of the same grit and then the field of the floor removing all scratches from the previous grit. After each polish, clean the floor thoroughly using clean water and an auto scrubber or a mop and a wet vacuum.
- K. Polish with final set of resin bonded diamonds to reach final Class.
- L. Apply Guard W or an approved equal at 1500 – 2000 square feet per gallon using a pump sprayer and a low-nap micro-fiber cloth to “stretch” the material as far as possible.
- M. For Cafeteria area where Repello is specified as the guard product, apply at 300-400 SF/Gal per the TDB.
- N. Using a high speed (1500 – 2000 rpm) burnishing machine and a hogs hair or 3000 grit diamond impregnated burnishing pad, buff the surface to a high shine in two passes running 90 degrees from one another.

#### 3.05 ADJUSTING

- A. Repair, replace, or make restitution for staining and overspray damage to surfaces damaged by the work of this section, as directed by the City.

## **DIVISION 03 – CONCRETE**

### **SECTION 03 50 00 – CONCRETE FINISHING**

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- B. Repair scratches, and other surface damage to show no evidence of repair.

#### **3.06 CLEANING**

- A. Leave area clean, free from spillage, overspray, tracking, and other residue resulting from the work of this section.
- B. Remove slurry and dust from adjoining surfaces as necessary.
- C. Dispose of material containers in accordance with local regulations.

#### **3.07 PROTECTION**

- A. Cover concrete finished surfaces with clean, unwrinkled kraft curing paper.
- B. Lay plywood or other non-staining protective coverings at traffic routes and work areas.
- C. Do not apply adhesive tape to finished flooring.
- D. Protect from standing water for 30 days.
- E. Protect from foot traffic and rolling loads for a minimum of 7 days upon completion and acceptance by the City of the concrete finishing

**END OF SECTION**

**DIVISION 03 – CONCRETE**  
**SECTION 03 60 00 – GROUTING**

---

**PART 1 - GENERAL**

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**1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 03 30 00 – Cast-in-Place Concrete
- B. Section 05 50 00 – Metal Fabrications

**1.02 DESCRIPTION OF WORK**

The Work includes furnishing of necessary material, labor, and equipment for grouting and doweling as shown on the Drawings and described in the Specifications. The Work also includes the repairs to cast-in-place concrete members.

**1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.

**1.04 QUALITY ASSURANCE**

- A. Provide necessary assistance in testing of materials and provide access for testing and inspection at no additional expense to the City. The City will provide testing and inspection service as required.
- B. Provide at least one person who shall be present at all times during execution of the work, who shall direct the work performed, and who has at least 5 years' experience with the materials and the methods of installation necessary to meet the requirements of this Section.

**1.05 SUBMITTALS**

- A. Manufacturer's name, address, catalog cuts, and specifications for grout, epoxies, adhesives, admixtures, and proprietary products.
- B. Manufacturer's test certificates for grout compressive strength and non-shrink characteristics of proposed cementitious grout. Indicate the working time, fluid consistency, flow rate, and manufacturer's recommended installation temperatures.
- C. Manufacturer's recommendations for application of repair materials.

**PART 2 - PRODUCTS**

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**2.01 NON-SHRINK GROUT**

- A. Meet the requirements of ASTM C 1107 for hydraulic-cement non-shrink grout, have a 25 to 30 second fluid consistency according to ASTM C 939, have a minimum working time of 30 minutes, have minimum compressive strength of 8,000 psi at 28 days when prepared in fluid consistency, and not contain powdered aluminum. The following products meet these requirements when installed in accordance with the manufacturer's recommendations.



## **DIVISION 03 – CONCRETE**

### **SECTION 03 60 00 – GROUTING**

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- B. The following is a list of pre-approved non-shrink grouts:
  - 1. Masterflow 928, by BASF Corporation, Florham Park, NJ.
  - 2. SikaGrout 328, by Sika Corporation, Lyndhurst, NJ.
  - 3. Sure-Grip High Performance Grout, by Dayton Superior Corp., Miamisburg, OH.
- C. Refer to the Contract Documents for locations of grout application.

#### **2.02 REPAIR MORTAR**

- A. Shrinkage-compensated repair mortar with an integral corrosion inhibitor suitable for long-term use in a marine environment. The following product meets these requirements when installed in accordance with the manufacturer's recommendations:
  - 1. MasterEmaco N 350 CI manufactured by BASF Corporation.
  - 2. An equal product approved by the City.
- B. Locations: Repairs to new concrete construction and defects as identified in Section 03 30 00 – Cast-in-Place Concrete.

#### **2.03 CRACK REPAIR**

- A. Provide products appropriate for the specific defect and meeting the requirements of ASTM C 881. Select suitable products from the following.
  - 1. MasterInject crack repair resins, by BASF Corporation.
  - 2. Sikadur or Sika Injection crack repair resins, by Sika Corporation.
  - 3. Pro-Poxy or related products by Dayton Superior Corporation.
- B. Locations: Repairs to new concrete construction and defects as identified in Section 03 30 00 – Cast-in-Place Concrete.

### **PART 3 - EXECUTION**

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#### **3.01 GENERAL**

- A. Store, mix, and place products in accordance with the manufacturer's published specifications.
- B. Thoroughly clean and wet the surface before placing grout. Set metal fabrications and steel members to be embedded and grouted level, at proper elevation, with the use of steel shims or leveling screws before placing grout.

#### **3.02 FORM INSTALLATION**

Perform repairs in accordance with manufacturer's recommendations, including time of application with respect to age of concrete. Notify the City of repair procedures and provide manufacturer's recommendation to the City at least two weeks before performing repairs.

#### **3.03 CRACK REPAIR**

Perform repairs in accordance with manufacturer's recommendations, including time of application with respect to age of concrete. Notify the City of repair procedures and provide manufacturer's recommendation to the City at least two weeks before performing repairs.

<b>END OF SECTION</b>
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## **DIVISION 05 – METALS**

### **SECTION 05 40 00 – COLD FORMED METAL FRAMING**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 09 29 00 – Gypsum Board

##### **1.02 DESCRIPTION OF WORK**

The Work includes furnishing of necessary material, labor, and equipment for non-load bearing steel stud interior wall partition framing.

##### **1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Iron and Steel Institute (AISI), Specifications, Guides, Practices, and Standards.
- B. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- C. American Welding Society (AWS) D1.1 Structural Welding Code – Steel
- D. AWS D1.3 Structural Welding Code – Sheet Steel

##### **1.04 QUALITY ASSURANCE**

- A. Provide an experienced fabricator with a minimum of 5 years' experience with cold-formed framing with similar material, design and extent shown on the Contract Documents.
- B. Provide at least one person who shall be present at all times during execution of the work, who shall direct the work performed, and who has at least 5 years' experience with the materials and the methods of installation necessary to meet the requirements of this Section.
- C. Welding Qualifications: Qualify procedures and personnel according to the following:
  - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel".
  - 2. AWS D1.3/D1.3M, "Structural Welding Code - Sheet Steel".
- D. Fire-Test-Response Characteristics: Where indicated, provide cold-formed metal framing identical to that of assemblies tested for fire resistance per ASTM E119 by, and displaying a classification label from, a testing and inspecting agency acceptable to authorities having jurisdiction.

##### **1.05 SUBMITTALS**

- A. Product data including all of the manufacturer's literature including specifications, recommendations, and installation instructions for each type of metal stud to be installed, and accessories.
- B. Mill certificates or data from a qualified independent testing agency, or in-house testing with calibrated test equipment indicating steel sheet complies with requirements,

## DIVISION 05 – METALS

### SECTION 05 40 00 – COLD FORMED METAL FRAMING

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including base-metal thickness, yield strength, tensile strength, total elongation, chemical requirements, and metallic-coating thickness.

- C. Welder qualifications and test records showing qualifications in accordance with AWS D1.3.

#### 1.06 DELIVERY, STORAGE, AND HANDLING

Deliver materials to job site and store in adequately ventilated, dry locations. Storage area shall permit easy access for inspection and handling. If necessary to store materials outside, stack off the ground, support on a level platform, and protect from the weather as approved. Handle materials to prevent damage. Finish of the framing members shall be maintained at all times, unless otherwise directed by the Contract Task Order project manager or representative, repair damage to galvanized surfaces in accordance with ASTM A 780, using an approved high zinc dust content, galvanizing repair paint whenever necessary to prevent the formation of rust. Replace damaged items with new items, as directed by the Contract Task Order project manager or representative.

### PART 2 - PRODUCTS

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#### 2.01 STEEL STUDS, JOISTS, TRACKS, BRACING, BRIDGING AND ACCESSORIES

- A. Studs and Joists of 16 Gage (0.0598 Inch) and Heavier  
ASTM A 653, SS Grade 50, designation G90 galvanized.
- B. Studs and Joists of 18 Gage (0.0478 Inch) and Lighter  
Studs and Joists of 18 Gage (0.0478 Inch) and Lighter, Track, and Accessories: ASTM A 653, SS, Grade 33 designation G90 galvanized.
- C. Steel Sheet: ASTM A1003, Structural Grade, Type H, metallic coated, of grade and coating weight as follows:
  - 1. Grade: ST50H (ST340H).
  - 2. Coating: G60 (Z180).
- D. Steel Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with straight flanges, and as follows:
  - 1. Minimum Base-Metal Thickness: Matching steel studs or as indicated on drawings.
  - 2. Flange Width: 2-1/2 inches.
  - 3. Self-adjusting, slotted top track systems allowing for both upward and downward movement of building structure without adversely affecting positive attachment of framing members.
- E. Runners: 20 gauge, 1-5/8 inch flange minimum, faces knurled, except as otherwise indicated for top runners sized to match studs.
- F. Reinforcements: 25 gauge minimum, 3/4-inch or 1-1/2-inch cold rolled channel reinforcement for metal studs with finish on one (1) side.
- G. Sizes, Gages, Section Modulus, and Other Structural Properties  
Size and gage as indicated. Steel stud deflection shall be limited to L/600 for exterior wall brick veneer construction.

## **DIVISION 05 – METALS**

### **SECTION 05 40 00 – COLD FORMED METAL FRAMING**

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#### **2.02 MARKINGS**

- A. Studs and track shall have product markings stamped on the web of the section. The markings shall be repeated throughout the length of the member at a maximum spacing of 4 feet on center and shall be legible and easily read. The product marking shall include the following:
1. An ICC number
  2. Manufacturer's identifications
  3. Minimum delivered uncoated steel thickness
  4. Protective coating designator
  5. Minimum yield strength

#### **2.03 CONNECTIONS**

- A. Screws for steel-to-steel connections shall be self-drilling, tapping screws in compliance with ASTM C 1513 of the type, size and location as shown on the drawings. Electroplated screws shall have a minimum 5 micron zinc coating in accordance with ASTM F 1941. Non self drilling screws, bolts, and anchors shall be hot-dipped galvanized in accordance with ASTM A 123 or ASTM A 153 as appropriate.
- B. Bolts: ASTM A307 coated by hot-dip galvanizing per ASTM F2329.
- C. Post-Installed Concrete Anchors: Adhesive or expansion anchors fabricated from corrosion-resistant materials with allowable load capacities in accordance with ICC-ES AC193 and ACI 318 greater than or equal to the design load as determined by testing per ASTM E488/E488M conducted by a qualified testing agency.

#### **2.04 PLASTIC GROMMETS**

- A. Supply plastic grommets, recommended by stud manufacturer, to protect electrical wires. Prevent metal to metal contact for plumbing or fire protection pipes.

#### **2.05 ACCESSORIES**

Formed tracks, bracing, bridging, plates, clips, and gussets sized to fit studs and joists as required to provide a complete system.

### **PART 3 - EXECUTION**

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#### **3.01 PREPARATION**

- A. Protect installed finish work of other trades and surfaces to preclude damage from work of this section.
- B. Review areas of potential interference and conflicts, and coordinate layout and support provisions for interfacing work.

#### **3.02 INSTALLATION**

- A. Erect the work in accordance with the Contract Documents, references, codes and manufacturer's instructions. Where these may be in conflict, the more stringent requirements govern.
1. Comply with ASTM C754 for metal studs to receive gypsum board and other drywall systems.
  2. Install fire rated systems in accordance with governing codes.

## **DIVISION 05 – METALS**

### **SECTION 05 40 00 – COLD FORMED METAL FRAMING**

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- B. Isolation of stud systems from structure: Where stud systems abut horizontal or vertical structural elements, isolate with slip track system, or as otherwise indicated or required to prevent transfer of structural loads or movement to stud systems.
  - 1. Install slip track as top runner under metal decking and at framing meeting other structural systems.
    - a. Layout and align with bottom runners.
    - b. Fasten through slots into top of metal stud flange, following manufacturer's instructions to allow up to 1-inch deflection in structural framing system.
- C. Runner tracks: Install runner tracks at top and bottom, except where slip tracks are indicated.
  - 1. Layout and align tracks accurately at base and top of studs to ensure plumb partitions.
  - 2. Secure with approved fastening method 2-inches from each end not over 24-inches off center maximum.
  - 3. Provide fasteners at corners and ends of tracks.
  - 4. Butt runner tracks at partition corners and intersections, except leave clearance where base course of gypsum board is to run through.
- D. Studs: Except as otherwise detailed, comply with following:
  - 1. Erect studs not over 16-inches off center, except install additional studs as detailed or required at partition intersections, corner or openings.
  - 2. Double stud framing at door, window and wall coverings.
    - a. Attach one (1) 20-gauge metal stud to jamb anchors in each side of metal frames with two (2) screws per anchor.
    - b. Install a second 20-gauge stud in contact with the first stud, and attach gypsum board and other types of baseboard materials to both studs with screws not over 8-inches on center forming a column section.
  - 3. Install runner tracks screwed through each stud flange or approved clinch fastener to attach studs at openings, partition intersections, corners, and where partitions support fixtures or casework.

#### **3.03 SHIMMING AND BRACING**

- A. Shim metal furring to provide true and level surface for application of wallboard.
- B. Cross brace chase partitions as recommended by manufacturer or approved by the project manager or representative.
- C. Laterally brace metal studs with finish systems on side only or where finish system does not run full height of studs, as recommended by manufacturer, to meet lateral design loads.

#### **3.04 SUPPLEMENTARY FRAMING AND BACKING**

- A. Install backing systems for mounting and support of items such as railings, grab bars, heavy trim, shelving brackets, casework, fixtures, equipment and furnishings. Coordinate with work of each section for City-furnished items.

## **DIVISION 05 – METALS**

### **SECTION 05 40 00 – COLD FORMED METAL FRAMING**

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- B. Comply with metal stud manufacturer's instructions and industry standards for weight and loading requirements supplementary support is not appropriate or is not otherwise indicated.

#### **3.05 WELDING**

Perform welding in accordance with AWS D1.3/D1.3M, as modified by AISI S100. Welders, welding operations, and welding procedures shall be qualified according to AWS D1.3/D1.3M. Submit certified copies of welder qualifications test records showing qualification in accordance with AWS D1.3/D1.3M. Welds shall be cleaned and coated with rust inhibitive galvanizing paint. Do not field weld materials lighter than 43 mils.

#### **3.06 ERECTION TOLERANCES**

- A. Framing members which will be covered by finishes such as wallboard, plaster, or ceramic tile set in a mortar setting bed, shall be within the following limits:
  - 1. Layout of walls and partitions: 1/4 inch from intended position;
  - 2. Plates and runners: 1/4 inch in 8 feet from a straight line;
  - 3. Studs: 1/4 inch in 8 feet out of plumb, not cumulative; and
  - 4. Face of framing members: 1/4 inch in 8 feet from a true plane.

**END OF SECTION**

## **DIVISION 05 – METALS**

### **SECTION 05 50 00 – METAL FABRICATION**

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#### **PART 1 - GENERAL**

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##### **1.01 GENERAL**

Unless otherwise specified within this specification section, structural steel and metal fabrications shall be in accordance with section 6-03 (and all associated reference sections) of the Washington State Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction, (WSDOT), with the exception that contractual, measurement, and payment paragraphs sections do not apply.

##### **1.02 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 03 30 00 – Cast-in-Place Concrete
- B. Section 03 60 00 – Grouting
- C. Section 05 52 13 – Pipe and Tube Railings
- D. Section 09 91 00 – Painting

##### **1.03 DESCRIPTION OF WORK**

The extend and location of structural steel and metal fabrications are indicated on the Drawings. The Work consists of furnishing materials, labor, and equipment for furnishing, fabricating, galvanizing and/or coating, and erecting structural steel and metal fabrications, in accordance with these Specifications and as indicated on the Drawings..

##### **1.04 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American Galvanizers Association (AGA), Quality Assurance Manual
- C. American Institute of Steel Construction (AISC), Specification for Structural Steel Buildings (AISC 360)
- D. AISC, Code of Standard Practice for Steel Buildings and Bridges (AISC 303)
- E. American National Standards Institute (ANSI), Surface Texture (Surface Roughness, Waviness, and Lay), B46.1
- F. American Welding Society (AWS) D1.1, Structural Welding Code - Steel
- G. ASME International (ASME) Standards
- H. AWS A2.4, Standard Symbols for Welding, Brazing, and Nondestructive Examination
- I. WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, M41-10
- J. Washington Association of Building Officials (WABO) Standard No. 27-13, WABO Welder and Welding Operator Performance Qualification Standard for Structural Steel, Sheet Steel, and Reinforcing Steel

## **DIVISION 05 – METALS**

### **SECTION 05 50 00 – METAL FABRICATION**

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#### **1.05 QUALITY ASSURANCE**

- A. Fabricator: Demonstrate a minimum of 5 years experience fabricating and working similar metals and configurations, including cutting, bending, forming, welding, and finishing.
- B. Welders, Welding Operators, and Tack Welders: Currently certified by AWS.
- C. Welding: Qualify procedures, operations, welders, welding operators, and tack welders in accordance with AWS D1.1 and meet the requirements of WSDOT 6-03.3(25).
- D. Galvanized Coating Applicator: Specialize in hot-dip galvanizing after fabrication and follow the procedures in the AGA Quality Assurance Manual.
- E. Perform visual inspection and nondestructive testing (NDT) of shop and field welds in accordance with AWS D1.1 and WSDOT 6-03.3(25)A. Repair or replace welds failing to comply at no additional cost to the City.
- F. Inspection and Testing: Provide all necessary assistance to the City for carrying out inspections and test at no additional cost to the City. The City will provide for necessary inspection and testing as required, which shall be determined by the City. The City will make test results available can provide them to the Contractor upon written request by the Contractor.

#### **1.06 SUBMITTALS**

- A. Detailed and coordinated shop drawings indicating shop and erection details, including dimensions, cuts, copes, connections, holes, fasteners, material specifications, welds, surface preparations, and finishes.
- B. Erection methods meeting the requirements of WSDOT 6-03.3(7)A.
- C. Welder, welding operator, tack welder, and weld inspector qualifications and certifications.
- D. Weld Procedure Specifications (WPSs) proposed for use on the project. Include supporting Procedure Qualification Records (PQRs) for WPSs not prequalified by AWS.
- E. Galvanized coating applicator's Certificate of Compliance that the hot-dip galvanized coating meets or exceeds the specified requirements of ASTM A123, A153, and F2326 as applicable.
- F. Mill certificates for each heat number of structural steel and miscellaneous metal.
- G. Inspection testing reports for shop and field welds.

## **PART 2 - PRODUCTS**

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#### **2.01 GENERAL**

- A. Provide new materials, free from oxidation, corrosion, and defects, and of the specified quality.
- B. Protect materials and fabrications from damage before, during, and after installation. Protect against damaging the installed work of other trades.
- C. Protect galvanized finishes and painted coatings from damage by use of padded slings, straps, and other means.



## **DIVISION 05 – METALS**

### **SECTION 05 50 00 – METAL FABRICATION**

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- D. In the event of damage, immediately make repairs and replacements, as approved by the City, and at no additional cost to the City.

#### **2.02 STRUCTURAL STEEL**

- A. Structural plates, shapes, and W-shapes: ASTM A709, Grade 50, or as noted on the Drawings.
- B. Angles and Channels: ASTM A 36.
- C. HSS Sections: ASTM A1085.
- D. Pipe: ASTM A 53, Grade B

#### **2.03 BOLTS, NUTS, AND WASHERS**

- A. Anchor bolts and anchor rods: ASTM F 1554, Grade 55, headed typical; Grade 105, headed, where indicated on the Drawings.
- B. Bolts: ASTM F3125 Grade A325 type 1 or 3.
- C. Nuts: ASTM A563, heavy hex style, select grade in accordance with ASTM F3125.
- D. Washers: ASTM F436.
- E. Stainless steel bolts: ASTM F593, Alloy Group 2, Condition A. Provide heavy hex in accordance with ASME B18.2.1.
- F. Stainless steel nuts and coupling nuts: ASTM F194, Alloy Group 2, Condition A. Provide heavy hex in accordance with ASME B18.2.2.
- G. Stainless steel washers: ASTM F 844, Type 316 stainless steel, wide series, maximum thickness.
- H. Vandal resistant fasteners: ASTM A 320, Type 304 stainless steel. Type of vandal resistant are indicated on the Drawings.

#### **2.04 OTHER MATERIALS**

- A. General: Provide hardware and attachments as indicated on the Drawings for a complete installation. Prior to ordering materials, verify the size and dimensions of items, and components so that components are compatible, and that snug and tight connections can be made.
- B. Other materials not specifically described but required shall be as required per WSDOT. Materials shall be new, free of corrosion, and subject to the approval of the City.

### **PART 3 - EXECUTION**

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#### **3.01 PREPATORY REVIEW**

- A. Prior to the work of this Section, inspect the installed work of other trades affecting this work and verify that all such work is complete to the point where this installation may properly commence.
- B. Coordinate and furnish placement drawings, templates, instructions, and directions for installation of embedded anchorages, including concrete inserts, sleeves, anchor bolts, and miscellaneous items.
- C. Verify that the work can be fabricated and installed in accordance with the Drawings, Specifications, and reference standards. Report discrepancies to the City within 24

## **DIVISION 05 – METALS**

### **SECTION 05 50 00 – METAL FABRICATION**

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hours, do not proceed with fabrication or installation until discrepancies are resolved and direction is provided.

#### **3.02 FABRICATION**

- A. Fabricate structural steel and miscellaneous metals in accordance with the approved shop drawings and reference standards.
- B. Shop-fabricate and preassemble items complete for installation to the extent practicable to minimize field assembly. Disassemble units only as necessary for shipping and handling limitations.
- C. Unless otherwise indicated on the drawings, weld shop connections. Provide joints that are tight fitting, securely fastened, square, plumb, straight, and true.
- D. Drill or punch holes in accordance with WSDOT 6-03.3(27)A and WSDOT 6-03.3(27)B as required for attachments and bolted connections, including those of other trades.
- E. Do not burn holes.
- F. Conform to AWS D1.1 and WSDOT 6-03.3(25) for welding and repair of welding

#### **3.03 PROTECTIVE COATING**

- A. Galvanizing:
  - 1. Hot-dip galvanize steel items, miscellaneous metal, metal fabrications, and fasteners, except as noted on the Drawings or in this Specification, in conformance with ASTM A 123, A 143, A 153, A 384, A 385, and F 2326.
  - 2. Identify proposed drain holes or vent holes required to produce galvanized coatings to the specified standards. Clearly locate these holes on the shop drawings.
  - 3. Galvanize items, to the extent practicable, immediately after fabrication is complete.
  - 4. Prepare galvanized surfaces to be coated with a painting in accordance with Section 09 91 00 – Painting.
  - 5. Restore damaged galvanizing, including damage due to welding, in accordance with ASTM A 780 using zinc-based alloys per Annex A1. Do not use zinc-rich paints. Prepare the surface and apply alloys in accordance with the manufacturer's specifications.

<b>END OF SECTION</b>
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## DIVISION 02 – METALS

### SECTION 05 52 13 – PIPE AND TUBE RAILINGS

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. Section 03 30 00 – Cast-in-Place Concrete
- B. Section 03 60 00 – Grouting
- C. Section 05 50 00 – Metal Fabrications

##### 1.02 DESCRIPTION OF WORK

The Work includes furnishing of necessary material, labor, and equipment for fabricating, and installing steel handrailing's in accordance with the drawings, and these specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Galvanizers Association (AGA), Quality Assurance Manual
- B. American Institute of Steel Construction (AISC), Specification for Structural Steel Buildings (AISC 360-16), July 7, 2016
- C. AISC, Code of Standard Practice for Steel Buildings and Bridges (AISC 303-16), June 15, 2016
- D. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- E. American National Standards Institute (ANSI), Surface Texture (Surface Roughness, Waviness, and Lay), B46.1, 2019
- F. American Welding Society (AWS) D1.1 Structural Welding Code – Steel
- G. National Association of Architectural Metal Manufacturers (NAAMM) Pipe Railing Manual and Metal Stair Manual
- H. Washington Association of Building Officials (WABO) Standard No. 27-13, WABO Welder and Welding Operator Performance Qualification Standard for Structural Steel, Sheet Steel, and Reinforcing Steel

##### 1.04 QUALITY ASSURANCE

- A. Conform to the requirements of the following Reference Standards or as modified and supplemented hereinafter.
  - 1. International Building Code (latest edition at time of Contract Task Order)
  - 2. Washington State Building Code (latest edition at time of Contract Task Order)
  - 3. Applicable City of Tacoma building codes and regulations.
- B. Manufacturer: Demonstrating a minimum of 5 years experience in fabricating and working with similar metals and configurations, including cutting, bending, forming, welding, and finishing.

## **DIVISION 02 – METALS**

### **SECTION 05 52 13 – PIPE AND TUBE RAILINGS**

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- C. Submit a certification letter that all components and fittings are furnished by the same manufacturer unless specific components and fittings were accepted by the City.
- D. Welders: Currently certified by AWS and WABO.
- E. Welding: Procedures, operations, welders, and tackers shall be qualified in accordance with AWS D1.1.
- F. Galvanized Coating Applicator: Specialize in hot-dip galvanizing after fabrication and follow the procedures in the AGA Quality Assurance Manual.

#### **1.05 SUBMITTALS**

- A. Product Data: Submit manufacturer's published literature for specified products and accessories as applicable including the manufacturer's specifications, performance calculations, and physical characteristics.
- B. Shop Drawings: Submit for approval shop drawings that include at a minimum plans, elevations, sections, and details of handrail fabrication with dimensions and connections and attachments to other work shown for each type of handrail.
- C. Samples for Initial Selection: For products involving selection of color, texture, or design, including mechanical finishes.
- D. Samples for Verification: For each type of exposed finish required:
  - 1. Sections of each distinctly different linear railing member, including handrails, top rail posts, and balusters, including finish.
  - 2. Fittings and brackets.
  - 3. Assemble sample of railing system, made from full size components, including top rail, post, handrail, and infill. Sample does not need to be full height.
  - 4. Show method of connection at intersections.
- E. Delegated-Design Submittal: For railings, include analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- F. Welder and Weld Inspector qualifications and certifications.
- G. Mill Certificates: Signed by manufacturers of steel products, certifying that products furnished comply with all requirements.
- H. Product Test Reports: For tests on railings performed by a qualified testing agency, in accordance with ASTM E894 and E935.

#### **1.06 PROJECT CONDITIONS**

- A. Field Measurements:
  - 1. The Contractor shall verify all handrailing dimensions by field measurement prior to ordering of materials and fabrication of handrailing.
  - 2. All field measurements shall be incorporated into the shop drawings, with shop drawings accepted by the City prior to fabrication.
- B. Established Dimensions
  - 1. Where field measurements cannot be made without delaying the work, establish dimensions and proceed with fabricating handrailing without field measurements.
  - 2. Established dimensions shall be included into the shop drawings, and shop drawings accepted by the City prior to fabrication.

## **DIVISION 02 – METALS**

### **SECTION 05 52 13 – PIPE AND TUBE RAILINGS**

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3. It is the Contractors responsibility to coordinate construction and ensure that actual dimensions correspond to the established dimensions.
4. If the Contractor elects to use established dimensions over field dimensions, the Contractor is assuming all risk and liability for the handrailing fit up.

## **PART 2 - PRODUCTS**

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### **2.01 PERFORMANCE REQUIREMENTS**

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 01 40 00 – Quality Requirements, to design railing, including attachment to building construction.
- B. Structural Performance: Railings, including attachment to building construction, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
  1. Handrails and Top Rails of Guards:
    - a. Uniform load of 50 pounds per foot applied in any direction.
    - b. Concentrated load of 200 pounds applied in any location in any direction.
    - c. Uniform and concentrated loads do not need to be assumed to act concurrently.
  2. Guard Intermediate Rails, Balusters, Panel Fillers, Posts or Cables:
    - a. Concentrated load of 50 pounds applied horizontally on an area of 1 square foot.
    - b. Infill load and other loads do not need to be applied concurrently.
  3. Railing frame components and cable hardware shall be designed to withstand loads encountered without excessive deflection or distortion when cables are tensioned.
  4. Thermal Movements: Allow for thermal movement from ambient surface temperature changes.

### **2.02 METALS, GENERAL**

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.
- B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

### **2.03 FABRICATION**

- A. General:

Fabricate handrails and railings to comply with requirements indicated on the Contract Documents, with dimensions, member sizes, spacings, details, finishes, and anchorage as required to meet all performance requirements.
- B. Assembly and Disassembly
  1. Handrails shall be assembled in the shop to fullest extent possible to minimize field splicing and assembly.
  2. Handrail units shall only be disassembled as required for shipping and handling requirements. Each element that is disassembled from the handrailing shall be clearly marked for reassembly to the corresponding connection and for coordinated field installation.

## DIVISION 02 – METALS

### SECTION 05 52 13 – PIPE AND TUBE RAILINGS

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- C. Unless otherwise indicated on the drawings, provide joints that are tight fitting, securely fastened, square, plumb, straight, and true.
- D. Drill or punch holes required for attachments and bolted connections. Do not burn holes.
- E. Fabricate connections that are exposed to weather in a manner that excludes water. Provide weep holes where water may accumulate. Weep holes shall be inconspicuous locations.
- F. Welded Connections:
  - 1. Weld connections continuously to comply with the following:
    - a. Use materials and procedures to minimize distortion and develop strength.
    - b. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.
  - 2. Welding electrodes and filler metal shall meet the requirements of AWS and those recommended by the producer of the metal to be welded to match color, strength and compatibility.
- G. Non-Welded Connections:
  - 1. Fabricated handrails and railings by connecting members with concealed mechanical fasteners and fillings, unless otherwise indicated.
  - 2. Fabricate members and fittings to produce a flush, smooth, rigid connections, with hairline joints.
- H. Brackets, Flanges, Fittings, and Anchors:

Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect handrail and railing members to other work, unless otherwise indicated.
- I. Close exposed ends of hollow railing members with prefabricated cap and end fittings of same metal and finish as railings.
- J. Provide inserts and other anchorage devices for connecting railings to concrete, masonry, or other work.
  - 1. Fabricate anchorage devices capable of withstanding loads imposed by railings.
  - 2. Coordinate anchorage devices with supporting structure.

#### 2.04 FINISHES

- A. Comply with NAAMM' "Metal Finishes Manual for Architectural and metal products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes of exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work
  - 1. Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved samples.
    - a. Noticeable variations in the same piece are not acceptable.
    - b. Variations in appearance of other components are acceptable if they are within the range of approved samples and are assembled or installed to minimize contrast.

## DIVISION 02 – METALS

### SECTION 05 52 13 – PIPE AND TUBE RAILINGS

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#### PART 3 - EXECUTION

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##### 3.01 GENERAL

- A. Examine areas to receive handrail system, including all areas to receive anchors, and verification of the locations of concealed anchors. Do not begin installation of the handrailing system until proper fit up and anchorage installation has been verified.
- B. For post-installed concrete anchors are to be installed, verify, and clearly mark the location of existing reinforcing steel prior to installation of post-installed concrete anchors. Bring any interferences to the attention of the City prior to any post-installed concrete anchor installation.

##### 3.02 INSTALLATION

- A. Installation of the handrailing system shall be in accordance with the accepted shop drawings, and the manufacturer's instructions and recommendations.
- B. Perform cutting, drilling, and fitting required for installing railings.
  - 1. Fit exposed connections together to form tight, hairline joints.
  - 2. Install railings level, plumb, square, true to line; without distortion, warp, or rack.
  - 3. Set railings accurately in location, alignment, and elevation; measured from established lines and levels.
  - 4. Do not weld, cut, or abrade surfaces of railing components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
  - 5. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
  - 6. Align rails so variations from level for horizontal members and variations from parallel members do not exceed 1/8 inch in 12 feet.
- C. Adjust railings before anchoring to ensure matching alignment at abutting joints.
- D. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing handrails and railings and for properly transferring loads to in-place construction.

##### 3.03 RAILING CONNECTIONS

- A. Nonwelded Connections: Use mechanical joints for permanently connecting railing components. Use wood blocks and padding to prevent damage to railing members and fittings.
- B. Welded Connections: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in Fabrication" Article, whether welding is performed in the shop or in the field.
- C. Expansion Joints: Install expansion joints at locations indicated but not farther apart than required to accommodate thermal movement. Provide slip-joint internal sleeve, extending 2 inches beyond joint on either side; fasten internal sleeve securely to one side; and locate joint within 6 inches of post.

##### 3.04 CLEANING

- A. Touch-Up Painting: Cleaning and touch-up painting of field welds, bolted connections, and abraded areas of shop paint are specified in Section 09 91 00 – Painting.

## **DIVISION 02 – METALS**

### **SECTION 05 52 13 – PIPE AND TUBE RAILINGS**

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#### **3.05 PROTECTION**

- A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.
- B. Restore finishes damaged during installation and construction period, so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit or provide new units.

**END OF SECTION**



## DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES

### SECTION 06 20 00 – FINISH CARPENTRY

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of finish carpentry is indicated on the Drawings. The Work shall consist of furnishing all labor, material, and equipment for erection of all Finished Carpentry, in accordance with the Drawings and these Specifications. Field-verify all dimensions for materials to be furnished, including verification of member sizing prior to ordering of materials.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. ANSI/AWI Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program
- C. APA United States Product Standard (with American Plywood Association's Grade Trademarks): PS 1-83 for Construction and Industrial Plywood with Typical APA Trademarks
- D. National Design Specification (NDS) for Wood Construction, American Wood Council (AWC)
- E. West Coast Lumber Inspection Bureau (WCLIB), Standard Grading Rules for West Coast Lumber - No. 17

##### 1.04 QUALITY ASSURANCE

- A. Provide a supervisor for the Work meeting the following minimum qualifications and requirements:
  - 1. Have a minimum of 5 years' experience in the repair and construction of timber structures with similar details
  - 2. Responsible to direct this portion of the Work
  - 3. Present at all times during execution of this portion of Work
  - 4. Experienced with the type of materials being installed
  - 5. Skilled in the required methods for installation
- B. Provide skilled workers who are familiar with the Work involved and the techniques required for the proper execution of the Work.

##### 1.05 SUBMITTALS

- A. Product Data: Manufacturer's specifications, instructions, and definitive brochures fully describing products. Show conformance with contract documents.
- B. Shop Drawings

## **DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES**

### **SECTION 06 20 00 – FINISH CARPENTRY**

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1. Show fabrication and details of installations. Indicate all materials and dimensions, required work by others, intersections with adjacent materials, and fastenings.
  2. Prepare minimum 1/4-inch scale plans and elevations.
  3. Show profiles of moldings and joint details. Show relationships with adjacent construction. Indicate finish used in accordance with Section 09 91 00 – Painting and Coating.
- C. Samples:
1. Wood panel veneer: Submit finish samples for approval.
  2. Wood baseboard and chair rail.
  3. Panel clip for mechanical attachment of hardwood paneling to wall.
  4. Colors: To be approved by the Contract Task Order project manager, or representative.

#### **1.06 REGULATORY REQUIREMENTS**

- A. Comply with City of Tacoma codes, ordinances, and other applicable regulatory requirements.
- B. Stamp back of fire rated hardwood veneer paneling with UL certification indicating core material conforming to UL 723 Ed. 11, Class 1 fire rating and ASTM E84.
  1. Flame spread: Less than 20
  2. Smoke developed: Less than 25
- C. Conform with applicable requirements of AWI whether indicated or not.

#### **1.07 DELIVERY, STORAGE AND HANDLING**

- A. Store materials in ventilated, interior locations under constant humidity and temperature conditions with minimum temperatures of 55° F and relative humidity of 50-percent to 55-percent. Store plywood and particle board products flat. Allow to stabilize prior to use.
- B. Protect from damage at all times. Cover to protect against dirt and dust.
- C. Remove and replace finish carpentry materials that are wet, moisture damaged, or mold damaged.
  1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

## **PART 2 - PRODUCTS**

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### **2.01 MATERIALS**

- A. Woodwork Assemblies: Except as modified, conform to the following:
  1. Woodwork to receive transparent finish: AWI 300, premium grade assembly for AWI 100, Grade 1 material finish.
  2. Woodwork to receive opaque finish: AWI 300, custom grade assembly for AWI 100, Grade 1 material finish.
  3. Miscellaneous: AWI 700
- B. Moisture Content of Finish Woods:
  1. Finish grades: Not more than 12-percent when delivered to site.

## DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES

### SECTION 06 20 00 – FINISH CARPENTRY

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2. Other grades, as applicable: Not more than 19-percent when delivered to site.
- C. Finish
1. Finish softwood lumber and milled sections to receive painted finishes:
    - a. WWPA 10.52, prime grade Douglas Fir MG
    - b. WWPA 30.11, No. 1 common grade Hem-Fit MG
    - c. WWPA 30.11, colonial grade White Pine MG
  2. Hardwood lumber and milled sections to receive transparent finish: Red Oak, rift cut, grade 1, to match AWI designations specified.
- D. Particleboard and Fiberboard: AWI Section 200, premium grade medium density particle board and medium density fiberboard (MDF) with an average 40 to 50 pounds per cubic foot density and moisture content of 8-percent to 12-percent.
- E. Hardwood Veneer Plywood Paneling:
1. 3-ply construction with core and veneers both sides.
  2. Exposed face veneer, ply 1: AWI, Grade A, red oak, rift cut, slip matched, balanced, and sequenced for length of each panel run.
  3. Core, ply 2: AWI Section 200, moisture resistant medium density particleboard or fiberboard.
  4. Back face veneer, ply 3: Same species as face veneer, AWI grade B (sound grade)
  5. Non-rated particle board or fiberboard core: As indicated this section for particleboard.
  6. Fire rated particle board core: UL 723 Ed. 11, Class 1 fire rated 3/8-inch medium density particleboard (45.0 + pcf density) as manufactured by Willamette Industries, "Duraflake FR", 1-503-928-3341 (Jeff Gross), or approved. Provide at fire rated assemblies in accordance with Code.
  7. Glue for woodwork: Best quality for the intended use. Waterproof for work subject to moisture.
- F. Rough Hardware
1. Provide necessary nails, spikes, screws and bolts
    - a. Sizes and quantities required by building code or the project manager or representative
    - b. Hot-dipped galvanized rough hardware subject to moisture
    - c. Use recessed screws, finish, or casing nails and screws for exposed work.
  2. Quantities: Furnish for fastenings as necessary for proper, finished and complete installations.

## 2.02 FABRICATION

- A. Softwood particleboard, fiberboard and plywood: Mill, grade and fabricate in accordance with references, manufacturer's data, and as indicated by Contract Documents.
- B. Workmanship
1. Finish exposed surfaces to be smooth, free from tool and machine marks.
  2. Use concealed fastenings wherever possible.
  3. Kerf backs of wood members more than 5-inches wide, or more than 3/4-inch thick.
  4. Joints: Make tight and form to conceal or reduce exposed shrinkage.

## DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES

### SECTION 06 20 00 – FINISH CARPENTRY

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#### PART 3 - EXECUTION

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##### 3.01 PREPARATION

- A. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.
- B. Prior to ordering lumber materials, field measure the members designated for replacement. Establish order lengths using the actual measured lengths plus any additional length to ensure a tight fitting in the field.
- C. Back prime any work scheduled to be painted prior to installation.
- D. Protect surrounding areas or surfaces to preclude damage during installation.

##### 3.02 INSTALLATION

- A. Conform to AWI 2019 Manual "custom grade" for opaque (painted) finished items and "premium grade" for transparent (stained and varnished) finished items and AWI 1700 for interior work, except where otherwise specified.
- B. Install finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
  - 1. Scribe and cut finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
  - 2. Install material with tight joints.
  - 3. Eased Edges: Ease exposed edges of finish work 1/8-inch minimum radius whether indicated or not.
  - 4. Cut butt splices at 30-degree angles
  - 5. Install to tolerance of 1/8 inch in 96 inches for level and plumb. Install adjoining interior finish carpentry with 1/16-inch maximum offset.
  - 6. Coordinate finish carpentry with materials and systems in or adjacent to it.
  - 7. Use soft lines or straps for slings to handling timbers, do not use steel cable.
- C. Fastening
  - 1. Drill holes for bolts 1/16 inch larger than the bolt.
  - 2. Pre-bore lead holes for lag bolt and screw locations to 65 percent of the shank diameter.
  - 3. Use finish nails or screws as indicated for installation.
  - 4. Set nails and screws for putting. Countersink fastenings. Putty recesses.
  - 5. Where screw attachment required, space screws at equal intervals.

**END OF SECTION**

**PART 1 - GENERAL**

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**1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

**1.02 DESCRIPTION OF WORK**

The extent and location of finish carpentry is indicated on the Drawings. The Work shall consist of furnishing all labor, material, and equipment for installation of hardwood veneer faced casework, plastic laminate countertops and faced casework, hardwood edges, trim, and backsplashes, hardware and accessories, and cut-outs and fitting , in accordance with the Drawings and these Specifications. Field-verify all dimensions for materials to be furnished, including verification of member sizing prior to ordering of materials.

**1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. ANSI/AWI Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program
- C. APA United States Product Standard (with American Plywood Association's Grade Trademarks): PS 1-83 for Construction and Industrial Plywood with Typical APA Trademarks
- D. Western Wood Products Association (WWPA) Western Lumber Grading Rules

**1.04 DEFINITIONS**

- A. Terminology for surface visibility: As defined, AWI 400-G-3, Identification of Parts, including as follows:
- B. Exposed Surfaces
  - 1. Surfaces visible when doors and drawers are closed.
  - 2. Surface visible when cabinets and shelving are open type or behind clear glass doors.
  - 3. Bottom surfaces of cabinets over 42-inches above floor.
  - 4. Top surfaces of cabinets under 78-inches above floor or visible from upper floor or staircase.
  - 5. Portions of casework visible after fixed appliances are installed.
  - 6. Front edges of cabinet body members.
- C. Semi-Exposed Surfaces
  - 1. Inside cabinet surfaces visible when doors and drawers are open.
  - 2. Bottoms of casework over 30-inches and under 42-inches above floor.
  - 3. Front edges of shelving behind doors.
- D. Concealed Surfaces

## **DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES**

### **SECTION 06 40 00 – ARCHITECTURAL WOODWORK**

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1. Surfaces never visible after casework installation.
  2. Bottoms of cabinets under 30-inches above floor.
  3. Tops of casework over 78-inches above floor unless exposed to view as defined above.
  4. Stretchers, blocking, and components concealed by cabinet construction.
- E. Exposed Edges
1. Edges of exposed surfaces, including edges exposed to view such as seen from above or below.
  2. Edges of exposed adjustable shelving.
  3. Semi-exposed edges: Edges of semi-exposed surfaces, exposed behind fully open doors and drawers.
  4. Concealed edges: Edges of concealed surfaces.

#### **1.05 QUALITY ASSURANCE**

- A. Provide a supervisor for the Work meeting the following minimum qualifications and requirements:
1. Have a minimum of 5 years' experience in the repair and construction of timber structures with similar details
  2. Responsible to direct this portion of the Work
  3. Present at all times during execution of this portion of Work
  4. Experienced with the type of materials being installed
  5. Skilled in the required methods for installation
- B. Provide skilled workers who are familiar with the Work involved and the techniques required for the proper execution of the Work.
- C. Conform to AWI Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program, including quality standards not necessarily referenced in this section, except as other indicated

#### **1.06 SUBMITTALS**

- A. Shop drawings: Indicate casework and millwork locations. Include large scale plans, elevations, cross sections, joint details, dimensions, tolerances, clearances, fastening methods, accessory listings, hardware locations, blocking requirements for anchor placement, and utility/service requirements and locations.
- B. Shop drawings for fabrication and installation of compartment assemblies that are not fully described by architectural drawings. Provide template layouts and installation instructions for anchorage devices built into other work
- C. Product Data: Manufacturer's specifications, instructions, and definitive brochures fully describing products. Show conformance with contract documents.
- D. Product data for materials, fabrication, and installation including catalog cuts of anchors, hardware, fastenings, and accessories
- E. Samples:
1. Hardware: Hardware pulls and latches in finishes to be provided
  2. Plastic laminate: Samples showing each color and finish for cabinet finishes
  3. PVC edge banding: Samples of each type and color
- F. Samples of full color range for each required unit type. Submit Ampco's standard color selector

## **DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES**

### **SECTION 06 40 00 – ARCHITECTURAL WOODWORK**

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#### **1.07 DELIVERY, STORAGE AND HANDLING**

- A. Product handling: Do not deliver shop fabricated items until installation areas are ready (including completion of painting, wet work, grinding and similar operations which could damage, soil or deteriorate casework and millwork).
- B. Store materials in ventilated, interior locations under constant humidity and temperature conditions with minimum temperatures of 55° F and relative humidity of 50-percent to 55-percent.
- C. Protect finished surfaces from soiling and damage during handling and installation. Keep covered with polyethylene film or other protective coating.
- D. Remove and replace materials that are wet, moisture damaged, or mold damaged.
  - 1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

#### **PART 2 - PRODUCTS**

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#### **2.01 APPROVED MANUFACTURERS**

- A. Northwest Millwork, 206-284-6440, Seattle, Washington
- B. Pearson Millwork, Inc., 360-435-9516, Arlington, Washington
- C. Skagit Architectural Millwork, 360-336-9587, Mt. Vernon, Washington
- D. Contract Task Order project manager or representative approved equal

#### **2.02 MATERIALS**

Provide material that has been selected for surface flatness and smoothness. Exposed surfaces that exhibit pitting, seam marks, roller marks, stains, discoloration, telegraphing of core, or other imperfections on finished units are not acceptable.

- A. Wood/lumber: In accordance with AWI Section 100 and the following:
  - 1. Exposed surfaces and semi-exposed surfaces: Red oak, AWI Grade 1, rift sawn at exposed edges and trim.
  - 2. Concealed surfaces: Manufacturer's standard
- B. Particleboard or fiberboard: AWI Section 200, premium grade, medium density, particleboard with an average 37 to 50 pounds per cubic foot density and moisture content of 8-percent to 12-percent:
- C. Particleboard plywood and fiberboard plywood: AWI Section 200, 3-ply or 5-ply construction laminated with Type 1 or Type 2 water resistant glue.
  - 1. Core: Medium density particleboard as specified in this section.
- D. Laminated plastic: Meet or exceed NEMA LD3-2005 standards for high pressure decorative laminate with low glare, fine textured finish. Manufacturer's product and colors as required per the drawings and these specifications.
  - 1. Horizontal grade: NEMA GP50, 0.048-inch thick at horizontal surfaces, including both interior and exterior surfaces of open casework.
  - 2. Vertical grade: NEMA GP28, 0.028-inch thick at vertical exposed surfaces of casework.
  - 3. Line grade: NEMA CL20, 0.020-inch thick for balancing sheets.

## DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES

### SECTION 06 40 00 – ARCHITECTURAL WOODWORK

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- E. Melamine laminate: Thermoset melamine cabinet liner. Provide at semi-exposed/interior casework surfaces concealed behind doors and drawers, except as otherwise indicated for wood veneer doors.
- F. Laminate adhesive: Liquid polyvinyl acetate or a urea resin adhesive.
- G. PVC edge banding: At exposed edges of plastic laminated faced casework using hot melt, waterproof adhesive under heat and pressure. Edges and corners trimmed and buffed smooth. Color as s as required per the drawings and these specifications.
  - 1. 1/8-inch thick for door and drawer fronts, face panels and vertical edges of end panels and leg panels.
  - 2. 0.02-inch thick minimum for other edges, including edges concealed and semi-concealed edges of interior components such as shelves, partitions, drawer sides, and top and bottom edges of wall hung cabinets.
- H. Hardware and Fittings
  - 1. Hinges: Rockford Process Control (RCB) #B854, satin stainless steel (US 26D) finish, or approved.
    - a. Five-knuckle, 2-3/4-inch fixed pin, 270-degree swing, hospital type.
  - 2. Door and drawer pull: 4-inch wire type, satin stainless steel (US26D) finish, Builders Brass #290, Hardware Concepts, "Royal Series, #4528-78", or approved.
  - 3. Catches: Magnetic, 7-pound catch to match color of edge banding.
  - 4. Concealed Hinges at Tool Room Counter: Soss 218 E, with black epoxy-phenolic finish. Provide as indicated on drawings to support minimum live load of 200 pounds on hinged counter section.
  - 5. Locks: Olympus Lock, No. 700SC door lock and No. 800SC drawer lock, 1-206-523-9876, side bolt, re-keyable 5-pin tumbler locks, satin stainless steel (US26D) finish. Provide locks on casework as indicated. Tie keying into City's keying system with locks master keyed alike.
- I. Stile Shores and Caps: Shall be 20 gauge ASTM A167, Type 304 stainless steel, not less than 3-inches high, number 4 satin (brushed) finish.
- J. Brackets: Ampco's standard design for attaching panels to walls, stiles to walls, and panels to stiles and shall be cast chrome plated non-ferrous hardware.
- K. Anchorages and Fasteners: Standard chromium-plated exposed fasteners are finished to match hardware with theft-resistant type heads (one-way). All concealed steel fasteners shall have a zinc-plated, rust-resistant, protective coating. All fasteners shall be pre-packed, marked and labeled for ease of identification. Exposed fasteners for solid surface, solid plastic, and solid phenolic core shall be chrome plated brass and/or stainless steel

### 2.03 FABRICATION

Furnish standard doors, panels, screens and stiles fabricated for compartment system. Furnish units with cutouts and drilled holes to receive compartment hardware as indicated.

- A. Casework and millwork items: Shop fabricated, AWI Section 400, premium grade, flush overlay construction.
  - 1. Plastic laminate faced casework: Plastic laminated particleboard or fiberboard construction, AWI Section 400B or Section 641 – Architectural Wood Casework.



## DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES

### SECTION 06 40 00 – ARCHITECTURAL WOODWORK

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#### B. Cabinet Door:

1. Plastic laminate casework: Vertical grade, high pressure plastic laminate, bonded to 3/4-inch particleboard/fiberboard, backed with balancing sheet, and edged with PVC edge banding.
2. Hardware:
  - a. Pulls: One (1) per door
  - b. Hinges and magnetic catches: Two (2) anti-slam hinges and one (1) spring tension soft closer with rubber/cork pad per door, except three (3) anti-slam hinges and two (2) spring tension soft closer with rubber/cork pad per door on doors 48-inches high and over.

#### C. Countertops

1. Face sheets: Horizontal grade high pressure plastic laminate
  - a. Balancing sheets: Melamine or plastic laminate liner, backside of countertops and backsplashes to balance face sheet.
2. Stainless Steel Countertops
  - a. Stainless steel shall be 16-gauge, type 304 with No. 4 satin finish.
  - b. Finish edges: Shall be bent around and returned 1/2-inch under substrate with overall thickness of 1-1/2-inches, or as indicated on drawings. A solid 3/4-inch plywood core shall be bonded to the underside of steel for rigidity and sound deadening.
  - c. Countertops shall be furnished in longest possible lengths. Shop joints shall be electronically welded ground smooth, and polished to become practically invisible. Field joints shall be hairline butt joints mechanically bolted through continuous channels welded to the underside at edges. Field joints shall be kept to a minimum.

#### D. Cabinet Sides/Ends

1. Cores: 3/4-inch particleboard or fiberboard at plastic laminated casework and 3/4-inch particleboard or fiberboard plywood at hardwood veneer faced casework.
2. Exposed surfaces: Face with vertical grade high pressure plastic laminate as indicated, including interior surfaces of open casework (without doors or drawers)
3. Semi-exposed surfaces: Face with melamine cabinet liner at interior surfaces behind doors and drawers
4. Exposed and semi-exposed edges: PVC edge banding at plastic laminated faced casework.
5. Concealed tops and bottoms of casework: Underside bottoms to be laminated with melamine liner. Front, top and bottom edges to be faced with PVC edge banding.

#### E. Cabinet Backs

1. Cores
  - a. Backs installed against walls: 3/4-inch thick particleboard or fiberboard at plastic laminate faced casework and 3/4-inch thick particleboard or fiberboard cores at wood veneer faced casework.

## **DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES**

### **SECTION 06 40 00 – ARCHITECTURAL WOODWORK**

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- b. Freestanding casework: 3/4-inch thick particleboard or fiberboard cores at plastic laminated faced casework and 3/4-inch thick particleboard or fiberboard cores at wood veneer faced casework.
  2. Exposed surfaces of plastic laminate faced casework: Vertical grade, high pressure plastic laminate face
  3. Exposed surfaces of wood veneer casework: Red oak veneer
  4. Semi-concealed surfaces: Melamine laminate
  5. Concealed surfaces: Liner grade balancing sheet
- F. Fixed and Adjustable Shelves
1. No shelves are to be over 36-inches wide, unless specifically approved for installation.
  2. Core: 1-inch particleboard, fiberboard or plywood
  3. Exposed shelves: Face both sides with horizontal grade plastic laminate or hardwood veneer to match casework type.
  4. Semi-concealed shelves: Face both sides with melamine cabinet liner.
  5. Edges: Plastic laminated faced casework: PVC edge bank, 0.20-inch thick minimum at plastic laminated faced casework at exposed face of fixed shelves and all four (4) edges of adjustable shelves.
  6. Scribes and fillers: 3/4-inch particleboard or fiberboard. Face with high pressure plastic laminate or hardwood veneer to match adjacent surface.
  7. Counter support angles: Provide approved shelf angle, secured to wall, for support of counters spanning over 3'-0".
- G. Hardware
- Furnish hardware to comply with ANSI A117.1- 2017 and Title III of the American with Disabilities Act (ADA) as follows:
1. Metal, Stainless Steel and Powder Coated Baked Enamel, High Pressure Laminate, and Quick Cycle Melamine
    - a. Hinges: Supp gravity-acting cam allowing all doors to be set at various locations.
    - b. Latch and Keeper: Cast chrome plated nonferrous slide latch and combination stop with emergency release.
    - c. Coat Hook: Cast chrome plated non-ferrous coat hook (O/S) and/or combination coat hook and bumper (I/S).
    - d. Door Pull: Cast chrome plated non-ferrous metal.

## **PART 3 - EXECUTION**

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### **3.01 PREPARATION**

- A. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.
- B. Prior to ordering materials, field measure and establish order lengths using the actual measured lengths plus any additional length to ensure a tight fitting in the field.
- C. Protect surrounding areas or surfaces to preclude damage during installation.

## **DIVISION 06 – WOODS, PLASTICS, AND COMPOSITES**

### **SECTION 06 40 00 – ARCHITECTURAL WOODWORK**

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#### **3.02 INSTALLATION**

- A. Installation shall be in accordance with the accepted shop drawings, contract documents, references, codes and all manufacturers instructions and recommendations. Where there is a conflict in the written guidance follow that more stringent requirements.
- B. Install Architectural Woodwork level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
  - 1. Take care not to damage work of other trades.
  - 2. Secure units to building structure with suitable fasteners and means as required.
  - 3. Install wall-hung cabinets to firmly and rigidly support cabinet weight plus its expected normal loaded weight.
- C. Join adjoining cabinets top and bottom and sides. Place fasteners inconspicuously inside cabinets.
- D. Close exposed joints, spaces, and openings with filler of same material and finish as adjacent casework.
  - 1. Secure filler with concealed screws.
  - 2. Fillers shall not exceed 3-inches in width.
- E. Install 3-inches deep by 4-inches high toe space at floor mounted casework except as otherwise indicated.
- F. Countertops: Furnish tops in longest possible lengths. Factory prepared field joints with tight joint draw bolts or other mechanical fasteners. Joints no closer than 24-inches to sink or knee space. Field install using acrylic latex sealer.
- G. Coordinate with Division 15 - Mechanical and Division 16 - Electrical as required to complete installations.

#### **3.03 ADJUSTMENT, CLEANING AND PROTECTION**

- A. Repair damaged and defective casework and millwork to satisfaction of project manager or representative. Replace casework where not possible to repair or otherwise eliminate functional and visual defects.
- B. Adjust joinery for uniform appearance and clean, lubricate and adjust hardware.
- C. Provide protection and maintain conditions, in a manner acceptable to fabricator, to ensure that cabinets and casework remain undamaged through completion of project.

**END OF SECTION**

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

### **SECTION 07 84 00 – FIRESTOPPING**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### **1.02 DESCRIPTION OF WORK**

- A. The extent and location of firestopping is indicated on the Drawings. The Work shall consist of furnishing all labor, material, and equipment for installation fire and smokeproof acoustical sealant and fire saving system at receptacles, equipment, and other penetrations passing through rated and acoustical walls and floors, in accordance with the Drawings and these Specifications. Field-verify all dimensions for materials to be furnished, including verification of member sizing prior to ordering of materials.
- B. Coordinate products that are furnished under this section and require installation under other divisions.

##### **1.03 REFERENCE STANDARDS**

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. ANSI/UL 1479, Fire Tests of Through-Penetration Firestops

##### **1.01 QUALITY ASSURANCE**

- A. Comply with City of Tacoma codes, ordinances, and other applicable local, state, and federal regulatory requirements.
  - 1. UL 1479 Ed. 4 tests
  - 2. NFPA Standard 220
  - 3. Sound retardant (acoustical) installations: Conference rooms, offices, restrooms, and as indicated.
- B. Provide a supervisor for the Work meeting the following minimum qualifications and requirements:
  - 1. Have a minimum of 5 years' experience in the repair and construction of timber structures with similar details
  - 2. Responsible to direct this portion of the Work
  - 3. Present at all times during execution of this portion of Work
  - 4. Experienced with the type of materials being installed
  - 5. Skilled in the required methods for installation
- C. Provide skilled workers who are familiar with the Work involved and the techniques required for the proper execution of the Work.
- D. Inspector Qualifications: A qualified inspector to perform inspections and final reports. The inspector to meet the criteria contained in ASTM E699 for agencies involved in quality assurance and to have a minimum of two years' experience in construction field inspections of firestopping systems, products, and assemblies. The inspector to be completely independent of, and divested from, the installer, the manufacturer, and the supplier of material or item being inspected.

## DIVISION 07 – THERMAL AND MOISTURE PROTECTION

### SECTION 07 84 00 – FIRESTOPPING

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#### 1.02 SUBMITTALS

- A. Product and design data: Manufacturer's published literature, including specifications, installation instructions, and details pertinent to work.
- B. Test data: Show conformance to one (1) hour and two (2) hour fire rating. Include thickness, type and installation details meeting UL 1479 and ASTM E 814 tests.
- C. Certificate: Written certification that work has been inspected and that has been installed according to manufacturer's instructions and to meet code.
- D. Installer qualifications
- E. Certified laboratory test reports for ASTM E814 tests for systems not listed by FM, UL, or WH proposed for use

#### 1.03 DELIVERY, STORAGE AND HANDLING

- A. Deliver in original, unopened, protective packaging legibly labeled with manufacturer's name and product.
- B. Store in enclosed space to protect from moisture, dirt, tearing of packaging, and other damage or deterioration.

### PART 2 - PRODUCTS

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#### 2.01 ACCEPTABLE MANUFACTURERS

- A. United States Gypsum Company (USG), USG Firestop System, 1-800-950-3839, or Contract Task Order project manager or representative approved equal

#### 2.02 FIRESTOP SYSTEMS

- A. Provide either factory built (Firestop Devices) or field erected (through-Penetration Firestop Systems) to form a specific building system maintaining required integrity of the fire barrier and stop the passage of gases or smoke. Firestop systems to accommodate building movements without impairing their integrity. Erect and maintain temporary partition and enclosures. Minimize to the extent possible the spread of dust, odors, and noise into City occupied areas.
- B. Through-penetration firestop systems and firestop devices tested in accordance with ASTM E814 or UL 1479 using the "F" or "T" rating to maintain the same rating and integrity as the fire barrier being sealed. "T" ratings are not required for penetrations smaller than or equal to 101 mm (4 inches) nominal pipe or 0.01 square meter (16 square inches) in overall cross sectional area.
- C. Firestop sealants used for firestopping or smoke sealing to have the following properties:
  - 1. Contain no flammable or toxic solvents.
  - 2. Release no dangerous or flammable out gassing during the drying or curing of products.
  - 3. Water-resistant after drying or curing and unaffected by high humidity, condensation or transient water exposure.
  - 4. When installed in exposed areas, capable of being sanded and finished with similar surface treatments as used on the surrounding wall or floor surface.
- D. Firestopping system or devices used for penetrations by glass pipe, plastic pipe or conduits, unenclosed cables, or other non-metallic materials to have following properties:

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

### **SECTION 07 84 00 – FIRESTOPPING**

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1. Classified for use with the particular type of penetrating material used.
  2. Penetrations containing loose electrical cables, computer data cables, and communications cables protected using firestopping systems that allow unrestricted cable changes without damage to the seal.
- E. Surface burning characteristics: Non-combustible: As defined by NFPA Standard 220 when tested in accordance with ASTM E 136.
- F. Maximum flame spread of 25 and smoke development of 50 when tested in accordance with ASTM E84 or UL 723. Material to be an approved firestopping material as listed in UL Fire Resistance Directory or by a nationally recognized testing laboratory.
- G. FM, UL, or WH rated or tested by an approved laboratory in accordance with ASTM E814.
- H. Materials to be nontoxic and noncarcinogen at all stages of application or during fire conditions and to not contain hazardous chemicals. Provide firestop material that is free from Ethylene Glycol, PCB, MEK, and asbestos.
- I. For firestopping exposed to view, traffic, moisture, and physical damage, provide products that do not deteriorate when exposed to these conditions.
1. For piping penetrations for plumbing and wet-pipe sprinkler systems, provide moisture-resistant through-penetration firestop systems.
  2. For floor penetrations with annular spaces exceeding 101 mm (4 inches) or more in width and exposed to possible loading and traffic, provide firestop systems capable of supporting the floor loads involved either by installing floor plates or by other means acceptable to the firestop manufacturer.
  3. For penetrations involving insulated piping, provide throughpenetration firestop systems not requiring removal of insulation.

#### **2.03 MATERIALS**

- A. Fire, smoke stop and sound sealant: USG, "FIRECODE Compound", water based, vinyl type, flameproof, smoke-resistant, non-toxic, paintable, fire rated sealant, or approved.
- B. Fire safing insulation: USG, "THERMAFIBER Safing Insulation", mineral fiber, 4 pcf density, semi-rigid blanket insulation or approved.
- C. System: Provide thicknesses, widths, and lengths in accordance with manufacturer's system for fire rated assemblies required by code.
- D. Accessories: Provide galvanized steel safing clips and accessories to complete system.

### **PART 3 - EXECUTION**

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#### **3.01 EXAMINATION**

- A. Examine substrates and conditions with installer present for compliance with requirements for opening configuration, penetrating items, substrates, and other conditions affecting performance of firestopping. Do not proceed with installation until unsatisfactory conditions have been corrected.

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

### **SECTION 07 84 00 – FIRESTOPPING**

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#### **3.02 PREPARATION**

- A. Remove dirt, grease, oil, laitance and form-release agents from concrete, loose materials, or other substances that prevent adherence and bonding or application of the firestopping materials.
- B. Remove insulation on insulated pipe for a distance of 150 mm (6 inches) on each side of the fire rated assembly prior to applying the firestopping materials unless the firestopping materials are tested and approved for use on insulated pipes.
- C. Prime substrates where required by joint firestopping system manufacturer using that manufacturer's recommended products and methods. Confine primers to areas of bond; do not allow spillage and migration onto exposed surfaces.
- D. Masking Tape: Apply masking tape to prevent firestopping from contacting adjoining surfaces that will remain exposed upon completion of work and that would otherwise be permanently stained or damaged by such contact or by cleaning methods used to remove smears from firestopping materials. Remove tape as soon as it is possible to do so without disturbing seal of firestopping with substrates.

#### **3.03 INSTALLATION**

- A. Do not begin firestopping work until the specified material data and installation instructions of the proposed firestopping systems have been submitted and approved.
- B. Install in accordance with contract documents, references, codes and manufacturer's instructions. Where these may be in conflict, the more stringent requirements govern.
- C. Safing/sound insulation at rated assemblies:
  - 1. Cut with serrated knife slightly wider than opening.
  - 2. Compress and tightly fit, minimum 2-1/2-inch to 3-inch thickness in accordance with manufacturer's instructions for tested system specification for each installation condition.
  - 3. Poke safing through holes and penetrations at fire rated wall/ceiling assemblies. Pack around pipes, duct, receptacles and other through penetrations. See Division 15 - Mechanical and Division 16 – Electrical.
  - 4. Install safing insulation of proper size on safing clips spaced as needed, 24-inches on center maximum between wall and floor slabs leaving no voids.
- D. Firestop/Smoke Sealant
  - 1. Mix with water in container in accordance to manufacturer's instructions.
  - 2. Trowel compound into penetration to thickness required by tested system specification (1/2-inch to 1-inch) for each installation condition to topcoat fire safing and flush with wall surface for invisible joint when painted.

#### **3.04 CLEANUP**

- A. As work is completed, remove materials, litter, and debris.
- B. Clean up spills of liquid type materials.
- C. Clean off excess fill materials and sealants adjacent to openings and joints as work progresses by methods and with cleaning materials approved by manufacturers of firestopping products and of products in which opening and joints occur.
- D. Protect firestopping during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

### **SECTION 07 84 00 – FIRESTOPPING**

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that they are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated firestopping immediately and install new materials to provide firestopping complying with specified requirements.

#### **3.05 INSPECTIONS AND ACCEPTANCE OF WORK**

- A. Do not conceal or enclose firestop assemblies until inspection is complete and approved by Contract Task Order project manager or representative.
- B. Acceptance of an approved inspector to inspect firestopping in accordance with ASTM E2393 and ASTM E2174 for firestop inspection, and document inspection results. The inspector shall submit written reports indicating locations of and types of penetrations and type of firestopping used at each location; type is to be recorded by UL listed printed numbers.

**END OF SECTION**



## DIVISION 07 – THERMAL AND MOISTURE PROTECTION

### SECTION 07 92 00 – JOINT SEALANTS

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

A. The Work shall consist of furnishing all labor, material, and equipment for installation of interior and exterior sealant and their application, wherever required for complete installation of building materials or systems, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. Sealant, Waterproofing and Restoration Institute (SWRI). The Professionals' Guide

##### 1.04 DEFINITIONS

- A. Definitions of terms in accordance with ASTM C717 and as specified.
- B. Backing Rod: A type of sealant backing.
- C. Bond Breakers: A type of sealant backing.
- D. Filler: A sealant backing used behind a back-up rod.

##### 1.01 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer with a minimum of three (3) years' experience and who has specialized in installing joint sealants similar in material, design, and extent to those indicated for this Project and whose work has resulted in joint-sealant installations with a record of successful in-service performance. Submit qualification.
- B. Source Limitations: Obtain each type of joint sealant through one (1) source from a single manufacturer, unless approved by the Contract Task Order project manager or representative.
- C. Product Testing: Obtain test results from a qualified testing agency based on testing current sealant formulations within a 12-month period.
  - 1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C1021.
  - 2. Test elastomeric joint sealants for compliance with requirements specified by reference to ASTM C920, and where applicable, to other standard test methods.
  - 3. Test elastomeric joint sealants according to SWRI's Sealant Validation Program for compliance with requirements specified by reference to ASTM C920 for adhesion and cohesion under cyclic movement, adhesion-in peel, and indentation hardness.
  - 4. Test other joint sealants for compliance with requirements indicated by referencing standard specifications and test methods.

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

### **SECTION 07 92 00 – JOINT SEALANTS**

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- D. Lab Tests: Submit samples of materials that will be in contact or affect joint sealants to joint sealant manufacturers for tests as follows:
  - 1. Adhesion Testing: Before installing elastomeric sealants, test their adhesion to protect joint substrates according to the method in ASTM C794 to determine if primer or other specific joint preparation techniques are required.
  - 2. Compatibility Testing: Before installing elastomeric sealants, determine compatibility when in contact with glazing and gasket materials.
  - 3. Stain Testing: Perform testing per ASTM C1248 on interior and exterior sealants to determine if sealants or primers will stain adjacent surfaces. No sealant work is to start until results of these tests have been submitted to the Contract Task Order project manager or representative with written approval to proceed with the work.
- E. Preconstruction Field-Adhesion Testing: Before installing elastomeric sealants, field test their adhesion to joint substrates according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix 1.1 in ASTM C1193 or Method A, Tail Procedure, in ASTM C1521.
  - 1. Locate test joints where indicated in construction documents or, if not indicated, as directed by Contract Task Order project manager or representative.
  - 2. Conduct field tests for each application indicated below:
    - a. Each type of elastomeric sealant and joint substrate indicated.
    - b. Each type of non-elastomeric sealant and joint substrate indicated.
  - 3. Notify the City seven (7) days in advance of dates and times when test joints will be erected.
  - 4. Arrange for tests to take place with joint sealant manufacturer's technical representative present.
- F. Mockups: Before installing joint sealants, apply elastomeric sealants as follows to verify selections and to demonstrate aesthetic effects and qualities of materials and execution:
  - 1. Joints in mockups of assemblies that are indicated to receive elastomeric joint sealants.

#### **1.02 CERTIFICATION**

Contractor is to submit to the City written certification that joints are of the proper size and design, that the materials supplied are compatible with adjacent materials and backing, that the materials will properly perform to provide permanent watertight, airtight or vapor tight seals (as applicable), and that materials supplied meet specified performance requirements.

#### **1.03 SUBMITTALS**

- A. Product data: Indicate type of sealant, chemical characteristics, performance criteria, limitations and color availability. Include manufacturer standard Material Data Safety Sheet (MSDS) for each sealant used highlighting VOC limits. Obtain approval from project manager or representative before proceeding.
- B. Installers qualifications
- C. Contractors Certifications
- D. Manufacturer's installation instructions for each product used.

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

### **SECTION 07 92 00 – JOINT SEALANTS**

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- E. Cured samples of exposed sealants for each color.
- F. Manufacturer's Literature and Data:
  - 1. Primers
  - 2. Sealing compound, each type, including compatibility when different sealants are in contact with each other.
- G. Manufacturer warranty.
- H. Test reports as required by the Contract Task Order project manager or representative
- I. Samples
  - 1. Backer rods for vertical and horizontal applications
  - 2. Color samples of sealant proposed for work

#### **1.04 PROJECT CONDITIONS**

- A. Environmental Limitations:
  - 1. Do not proceed with installation of joint sealants under following conditions:
    - a. When ambient and substrate temperature conditions are outside limits permitted by joint sealant manufacturer or are below 40 degrees F.
    - b. When joint substrates are wet.
- B. Joint-Width Conditions:
  - 1. Do not proceed with installation of joint sealants where joint widths are less than those allowed by joint sealant manufacturer for applications indicated.
- C. Joint-Substrate Conditions:
  - 1. Do not proceed with installation of joint sealants until contaminants capable of interfering with adhesion are removed from joint substrates.

#### **1.05 DELIVERY, STORAGE AND HANDLING**

- A. Deliver materials in manufacturers' original unopened containers, with brand names, date of manufacture, shelf life, and material designation clearly marked thereon.
- B. Carefully handle and store to prevent inclusion of foreign materials.
- C. Do not subject to sustained temperatures exceeding 90 degrees F or less than 40 degrees F.

#### **1.06 WARRANTY**

- A. Manufacturer Warranty: Manufacturer shall warranty their sealant for a minimum of five (5) years from the date of installation and final acceptance by the City. Submit manufacturer warranty.

## **PART 2 - PRODUCTS**

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### **2.01 GENERAL**

- A. Comply with contract documents and manufacturer's data. Where these may be in conflict, the more stringent requirements govern.
- B. Color: Match approximate color adjacent surfaces, except as otherwise approved from Contract Task Order project manager or representative's samples.
- C. Verify compatibility with back-up material prior to beginning work.

## DIVISION 07 – THERMAL AND MOISTURE PROTECTION

### SECTION 07 92 00 – JOINT SEALANTS

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#### 2.02 PRODUCTS

- A. Interior: Provide the following or an approved equal
1. General sealant: Paintable, siliconized acrylic latex sealant, complying with ASTM C 834 or approved. Color as selected in accordance these Specifications.
  2. Acceptable Manufacturer's:
    - a. Tremco (<https://www.tremcosealants.com/>)
    - b. DAP (<https://www.dap.com/>)
    - c. Pecora (<https://www.pecora.com/>)
    - d. Sika (<https://usa.sika.com/>)
- B. Acoustical Sealant:
1. Conforming to ASTM C919; flame spread of 25 or less; and a smoke developed rating of 50 or less when tested in accordance with ASTM E84. Acoustical sealant have a consistency of 250 to 310 when tested in accordance with ASTM D217; remain flexible and adhesive after 500 hours of accelerated weathering as specified in ASTM C734; and be non-staining.
  2. Provide location(s) of acoustical sealant as follows:
    - a. Exposed acoustical joint at sound rated partitions.
    - b. Concealed acoustic joints at sound rated partitions.
    - c. Joints where item pass-through sound rated partitions.
- C. Miscellaneous
1. Joint cleaner: Chemical cleaners compatible with sealant and acceptable to manufacturer of sealants and sealant backing material. Cleaners to be free of oily residues and other substances capable of staining or harming joint substrates and adjacent non-porous surfaces and formulated to promote adhesion of sealant and substrates.
  2. Joint primers: Non-corrosive and non-staining type, as recommended by sealant manufacturer for joint surface conditions encountered.
  3. Bond breaker tape: Polyethylene tape/plastic tape recommended by sealant manufacturer, applied to sealant contact surfaces where bond to substrate or backer rod must be avoided for proper performance of sealant. Provide self-adhesive tape where applicable.
  4. Backer rods: Provide non-adhering type as recommended by sealant manufacturer and the following:
    - a. Horizontal joints: Closed cell polyethylene foam rod, except where joint filler is specified at paving.
    - b. Vertical joints: Closed cell polyethylene foam or "soft rod" (skinned open cell) polyethylene foam
    - c. Diameter: 1/3 greater than width of joint where it is to be installed.
    - d. Polystyrene foam and open cell rods are not acceptable.

### PART 3 - EXECUTION

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#### 3.01 INSPECTION

- A. Inspect substrate surface for bond breaker contamination and unsound materials at adherent faces of sealant.

## DIVISION 07 – THERMAL AND MOISTURE PROTECTION

### SECTION 07 92 00 – JOINT SEALANTS

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- B. Coordinate for repair and resolution of unsound substrate materials.
- C. Inspect for uniform joint widths and that dimensions are within tolerance established by sealant manufacturer.

#### 3.02 PREPARATION

- A. Prepare joints in accordance with manufacturer's instructions and SWRI (The Professionals' Guide).
- B. Clean surfaces of joint to receive caulking or sealants leaving joint dry to the touch, free from frost, moisture, grease, oil, wax, lacquer paint, or other foreign matter that would tend to destroy or impair adhesion.
  - 1. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants.
  - 2. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air. Porous joint surfaces include but are not limited to the following: a. Concrete. b. Masonry. c. Unglazed surfaces of ceramic tile.
  - 3. Remove laitance and form-release agents from concrete.
  - 4. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous surfaces include but are not limited to the following:
    - a. Metal
    - b. Glass
    - c. Porcelain enamel
    - d. Glazed surfaces of ceramic tile
- C. Do not cut or damage joint edges.
- D. Apply non-staining masking tape to face of surfaces adjacent to joints before applying primers, caulking, or sealing compounds.
  - 1. Do not leave gaps between ends of sealant backings.
  - 2. Do not stretch, twist, puncture, or tear sealant backings.
  - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- E. Apply primer to sides of joints wherever required by compound manufacturer's printed instructions or as indicated by pre-construction joint sealant substrate test.
  - 1. Apply primer prior to installation of back-up rod or bond breaker tape.
  - 2. Use brush or other approved means that will reach all parts of joints. Avoid application to or spillage onto adjacent substrate surfaces.

#### 3.03 BACKING INSTALLATION

- A. Install backing material, to form joints enclosed on three sides as required for specified depth of sealant.
- B. Where deep joints occur, install filler to fill space behind the backing rod and position the rod at proper depth.
- C. Cut fillers installed by others to proper depth for installation of backing rod and sealants.

## DIVISION 07 – THERMAL AND MOISTURE PROTECTION

### SECTION 07 92 00 – JOINT SEALANTS

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- D. Install backing rod, without puncturing the material, to a uniform depth, within plus or minus 3 mm (1/8 inch) for sealant depths specified.
- E. Where space for backing rod does not exist, install bond breaker tape strip at bottom (or back) of joint so sealant bonds only to two opposing surfaces.

#### 3.04 SEALANT DEPTHS AND GEOMETRY

- A. At widths up to 1/4 inch, sealant depth equal to width.
- B. At widths over 1/4 inch, sealant depth 1/2 of width up to 1/2 inch maximum depth at center of joint with sealant thickness at center of joint approximately 1/2 of depth at adhesion surface.

#### 3.05 INSTALLATION

- A. General:
  - 1. Apply sealants and caulking only when ambient temperature is between 40 degrees and 100 degrees F.
  - 2. Do not install polysulfide base sealants where sealant may be exposed to fumes from bituminous materials, or where water vapor in continuous contact with cementitious materials may be present.
  - 3. Do not install sealant type listed by manufacture as not suitable for use in locations specified.
  - 4. Apply caulking and sealing compound in accordance with manufacturer's printed instructions.
  - 5. Avoid dropping or smearing compound on adjacent surfaces.
  - 6. Fill joints solidly with compound and finish compound smooth.
  - 7. Tool exposed joints to form smooth and uniform beds, with slightly concave surface conforming to joint configuration per Figure 5A in ASTM C1193 unless shown or specified otherwise in construction documents. Remove masking tape immediately after tooling of sealant and before sealant face starts to "skin" over. Remove any excess sealant from adjacent surfaces of joint, leaving the working in a clean finished condition.
  - 8. Finish paving or floor joints flush unless joint is otherwise detailed.
  - 9. Apply compounds with nozzle size to fit joint width.
  - 10. Test sealants for compatibility with each other and substrate. Use only compatible sealant. Submit test reports.
  - 11. Replace sealant which is damaged during construction process.
- B. Weeps: Place weep holes and vents in joints where moisture may accumulate, including at base of cavity walls, above shelf angles, at all flashing, and as indicated on construction documents.
  - 1. Use round plastic tubing to form weep holes.
  - 2. Space weep holes formed from plastic tubing not more than 16 inches on center.
  - 3. Trim tubing material used in weep holes flush with exterior wall face after sealant has set.
- C. For application of sealants, follow requirements of ASTM C1193 unless specified otherwise. Take all necessary steps to prevent three-sided adhesion of sealants.

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

### **SECTION 07 92 00 – JOINT SEALANTS**

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- D. Interior Sealants: Where gypsum board partitions are of sound rated, fire rated, or smoke barrier construction, follow requirements of ASTM C919 only to seal all cut-outs and intersections with the adjoining construction unless specified otherwise.
1. Apply a 6 mm (1/4 inch) minimum bead of sealant each side of runners (tracks), including those used at partition intersections with dissimilar wall construction.
  2. Coordinate with application of gypsum board to install sealant immediately prior to application of gypsum board.
  3. Partition intersections: Seal edges of face layer of gypsum board abutting intersecting partitions, before taping and finishing or application of veneer plaster-joint reinforcing.
  4. Openings: Apply a 6 mm (1/4 inch) bead of sealant around all cutouts to seal openings of electrical boxes, ducts, pipes and similar penetrations. To seal electrical boxes, seal sides and backs.
  5. Control Joints: Before control joints are installed, apply sealant in back of control joint to reduce flanking path for sound through control joint.

#### **3.06 FIELD QUALITY CONTROL**

- A. Field-Adhesion Testing: Field-test joint-sealant adhesion to joint substrates according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C1193 or Method A, Tail Procedure, in ASTM C1521.
1. Extent of Testing: Test completed elastomeric sealant joints as follows:
    - a. Perform 10 tests for first 1000 feet of joint length for each type of elastomeric sealant and joint substrate.
    - b. Perform one test for each 1000 feet of joint length thereafter or one test per each floor per elevation.
- B. B. Inspect joints for complete fill, for absence of voids, and for joint configuration complying with specified requirements. Record results in a field adhesion test log.
- C. Inspect tested joints and report on following:
1. Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each type of product and joint substrate.
  2. Compare these results to determine if adhesion passes sealant manufacturer's field-adhesion hand-pull test criteria.
  3. Whether sealants filled joint cavities and are free from voids.
  4. Whether sealant dimensions and configurations comply with specified requirements.
- D. Record test results in a field adhesion test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant fill, sealant configuration, and sealant dimensions.
- E. Repair sealants pulled from test area by applying new sealants following same procedures used to originally seal joints. Ensure that original sealant surfaces are clean and new sealant contacts original sealant.

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

### **SECTION 07 92 00 – JOINT SEALANTS**

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- F. Evaluation of Field-Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements, will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

#### **3.07 CLEANUP**

- A. Fresh compound accidentally smeared on adjoining surfaces: Scrape off immediately and rub clean with a solvent as recommended by manufacturer of the adjacent material or if not otherwise indicated by the caulking or sealant manufacturer.
- B. Leave adjacent surfaces in a clean and unstained condition.

#### **3.08 PROTECTION**

- A. Protect from dust, moisture and other harmful substances during installation.
- B. Protect all sealed joints for minimum of twelve (12) hours or per the manufacturer's recommendation, whichever is longer.

**END OF SECTION**



## **DIVISION 08 – OPENINGS**

### **SECTION 08 11 00 – METAL DOORS AND FRAMES**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### **1.02 DESCRIPTION OF WORK**

The extent and location of metal doors and frames is indicated on the Drawings. The Work shall consist of furnishing all labor, material, and equipment for installation of all metal doors and frames, in accordance with the Drawings and these Specifications. Field-verify all dimensions for materials to be furnished, including verification of member sizing prior to ordering of materials.

##### **1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American National Standard Institute (ANSI): A 115 Specifications for Door and Frame Preparation
- C. ANSI/SDI A 250.8 Recommended Specifications for Standard Steel Doors and Frames
- D. ANSI/SDI A 250.11 Recommended Erection Instructions for Steel Frames
- E. ANSI/SDI A 250.4 Performance Test Procedures for Steel Door Frames and Frame Anchors
- F. National Fire Protection Association (NFPA) 80 Standard for Fire Doors and Other Opening Protectives
- G. TPU Standard Typical Door and Frames per drawing at the end of this section

##### **1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications:
  - 1. Regularly manufactures specified products.
- B. Manufactured specified products with satisfactory service on five similar installations for minimum five years.

##### **1.05 SUBMITTALS**

- A. Shop Drawings
  - 1. Details of each frame type including glass tops and other accessories
  - 2. Elevations of door design type.
  - 3. Conditions at openings. Show condition at floor/threshold and required clearance at door bottom to clear flooring material on swing side
  - 4. Details of construction
  - 5. Location and installation requirements of finish hardware and reinforcements
  - 6. Details of joints and connections

## **DIVISION 08 – OPENINGS**

### **SECTION 08 11 00 – METAL DOORS AND FRAMES**

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7. Anchorage and accessory items
  8. Schedule of doors and frames. Use same reference numbers for details and openings as those on drawings.
- B. Product Data
1. Manufacturer's specifications, instructions, and literature including fabrication and installation instructions. Show conformance with contract documents.
  2. Manufacturer's standard water-based epoxy primer for approval.
- C. Manufacturer's written certificates attesting the following:
1. Each fire rated door and frame assembly has been designed and fabricated in accordance with NFPA Standard No. 80; tested in accordance to ASTM E 152; and bears a UL, Warnok Hersey, or FM label.
    - a. Indicate that temperature rise rated doors shall be provided where required by code, including for stairwell enclosures, with 450° F maximum temperature rise rating in thirty (30) minutes.
  2. Hollow metal doors and frames delivered to project conform to or exceed requirements of these specifications.
    - a. Manufacturer agrees to replace, at no additional cost to the City, doors and frames not meeting provisions of these specifications.
  3. Specified priming procedures, methods and products have been followed.

#### **1.06 REGULATORY REQUIREMENTS**

- A. Comply with City of Tacoma codes, ordinances, and other applicable regulatory requirements.
- B. Fabrication and installation of frame assemblies: NFPA Standard No. 80
- C. Provide UL, Warnok Hersey, or FM label on all doors and frames scheduled to be fire-rated. See door schedule on drawings for rating required. Do not paint over surface-applied labels

#### **1.07 DELIVERY, STORAGE AND HANDLING**

- A. Fasten temporary steel spreaders across the bottom of each door frame before shipment.
- B. Deliver products in manufacturer's original sealed packaging.
- C. Mark packaging, legibly. Indicate manufacturer's name or brand, type, production run number, and manufacture date.
- D. Before installation, return or dispose of products within distorted, damaged, or opened packaging.
- E. Store products upright at an indoors in dry, weathertight, conditioned facility.
- F. Protect products from damage during handling and construction operations. Any damage to the products shall be repaired or replaced by the Contractor at no cost to the City.

#### **1.08 WARRANTY**

Provide manufacturer's one (1) year warranty to start at substantial completion of the project.

## DIVISION 08 – OPENINGS

### SECTION 08 11 00 – METAL DOORS AND FRAMES

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#### PART 2 - PRODUCTS

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##### 2.01 ACCEPTABLE MANUFACTURERS

- A. Curries (<https://www.curries.com/en>)
- B. Steelcraft (<https://www.steelcraft.com/en/index.html>)
- C. Republic Builders Products (<https://www.republicdoor.com/en/index.html>)
- D. Ceco Door Products (<https://www.cecodoor.com/en>)
- E. Fleming (<https://www.flemingdoor.com/en>)

##### 2.02 MATERIALS

- A. Hot-rolled steel sheets and strips: Commercial quality carbon steel, pickled and oiled, complying with ASTM A1011 and ASTM A568.
- B. Cold-rolled steel sheets: Commercial quality carbon steel, complying with ASTM A1008 and ASTM A568.
- C. Support and anchors: Fabricate of not less than 16-gauge galvanized sheet steel
- D. Inserts, bolts and fasteners: Manufacturer's standard units.
- E. Internal construction: Interior doors of polystyrene core laminated to both face sheets with adhesive.

##### 2.03 FABRICATION

- A. General
  - 1. Fabricate units to be rigid, neat in appearance, free from defects, warp or buckle.
  - 2. Wherever practicable, fit and assemble units in manufacturer's plant. Clearly identify work that cannot be permanently factory-assembled at project site.
  - 3. Fabricate exposed faces of doors and panels from only cold-rolled steel.
  - 4. Fabricate frames, concealed stiffeners, reinforcement, edge channels and moldings from either cold-rolled or hot-rolled steel (at fabricator's option).
  - 5. Weld exposed joints continuously, grind, dress, and make smooth, flush and invisible.
  - 6. Allow clearance for flooring as required.
- B. Standard Steel Door
  - 1. Provide metal doors of types and styles indicated on drawings and schedules and complying with manufacturer's specifications and ANSI/SDI A250.8 for minimum materials and construction requirements.
  - 2. Flush panel type: SDI, Grade II, Model 2 or 3, seamless 18-gauge minimum thickness for face sheets
  - 3. Glazing in doors: Standard non-removable 20-gauge glazing stops on secure side of doors. Glazing bead on other side to be removable. See Section 08 80 00 - Glazing.
- C. Steel Frames
  - 1. Provide 16-gauge metal door, sidelight and relight frames of types and styles indicated on drawings or schedules and complying with manufacturers

## DIVISION 08 – OPENINGS

### SECTION 08 11 00 – METAL DOORS AND FRAMES

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specifications and ANSI/SDI A250.8-2023 for minimum materials and construction requirements.

2. Conceal fastenings: Dap frames and body putty flush with frame to make fastenings invisible as applicable.
3. Pressed steel frames with 2-inch face, 1/2-inch returns, double rabbet with 5/8-inch stop.
4. Fabricate frames of welded construction as required for rated and non-rated assemblies, all corners mitered. Knock-down frames not permitted.
5. Plaster guards: Provide 26-gauge steel plaster guards or mortar boxes, welded to frame, at back of finish hardware cutouts where finish materials might obstruct hardware operation.
6. Accessories: Include glazing stops for new and existing hollow metal doors, frames and relights.

#### 2.04 HARDWARE

- A. Hardware reinforcing: Factory reinforce, drill and tap doors and frames to receive mortised hinges, locks, latches, flush bolts and concealed door closers as indicated or required for installations. Comply with applicable requirements of ANSI A115, and Section 08 71 00 –Door Hardware.
  1. Provide minimum gauge hardware reinforcing as follows:
    - a. Hinges: 10-gauge at doors or equivalent number of threads and 7-gauge at frames.
    - b. Locks: 12-gauge or equivalent number of threads
    - c. Surface closers: 12-gauge x 5-inch wide minimum
    - d. Hold open arms: 12-gauge
    - e. Panic devices: 12-gauge
    - f. Floor check hinges and pivots: 7-gauge
  2. Work to templates for all hardware.
  3. Drill for door silencers.
  4. Provide plaster guards at silencers and strike pockets.
  5. Conform to standards of hardware manufacturer except as modified in this section.
  6. Locate finish hardware as specified in Section 08 71 00 – Door Hardware.
- B. Anchors: Provide sufficient wall anchorage for wall attachment, tested in accordance with ANSI/SDI A250.4-2022, Level A of one (1) million cycles, except where anchorage is otherwise detailed on drawings.

#### 2.05 FINISH

- A. All HM doors and frames will be primed with a suitable interior or exterior shop primer (based on the final location) in accordance with the Steel Door Institute (SDI). These doors will be delivered to Tacoma Public Utilities (TPU) for application of final finish by the TPU Paint Shop. The selected contractor will allow a maximum of three (3) weeks for the final finish application in their work schedule.
- B. The Contract Task Order project manager, or representative may require the Contractor to paint the doors. All doors shall be painted by the Contractor in conformance with specification Section 09 91 00 – Painting.

## **DIVISION 08 – OPENINGS**

### **SECTION 08 11 00 – METAL DOORS AND FRAMES**

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#### **2.06 GALVANIC PROTECTION**

A barrier coating shall be applied to all doors where dissimilar metals may come into contact to prohibit galvanic action.

#### **2.07 LABEL DOORS, FRAMES, AND RELIGHTS**

- A. Where doors, frames and relights are noted on drawings with an hourly fire-resistant rating, provide doors, frames and relights constructed, tested and approved by Underwriters' Laboratories, Warnok Hersey, Factory Mutual, or other nationally recognized testing agency as approved by project manager or representative in accordance with requirements of ASTM E 152.
- B. Where doors, frames or relights do not qualify for appropriate labeling because of design, hardware, or other reason, notify the project manager or representative and obtain approval of required modifications before beginning fabrication of unit.

### **PART 3 - EXECUTION**

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#### **3.01 PREPARATION**

- A. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.
- B. Examine and verify substrate suitability for product installation.
- C. Protect existing construction and completed work from damage.
- D. Apply barrier coating to metal surfaces in contact with cementitious materials to minimum 0.7 mm (30 mils) dry film thickness.

#### **3.02 INSTALLATION - GENERAL**

- A. Install products according to manufacturer's instructions and accepted submittal drawings.
- B. When manufacturer's instructions deviate from specifications, submit proposed resolution to the Contract Task Order project manager or representative for consideration.
- C. Install fire doors and frames according to NFPA 80.
- D. Install smoke control doors and frames according to NFPA 105.

#### **3.03 FRAME INSTALLATION**

- A. Apply barrier coating to concealed surfaces of frames built into masonry.
- B. Plumb, align, and brace frames until permanent anchors are set.
  - 1. Use triangular bracing near each corner on both sides of frames with temporary wood spreaders at midpoint.
  - 2. Use wood spreaders at bottom of frame when shipping spreader is removed.
  - 3. Where construction permits concealment, leave shipping spreaders in place after installation, otherwise remove spreaders when frames are set and anchored.
  - 4. Remove wood spreaders and braces when walls are built and jamb anchors are secured.
- C. Floor Anchors:
  - 1. Anchor frame jambs to floor with two expansion bolts.

## DIVISION 08 – OPENINGS

### SECTION 08 11 00 – METAL DOORS AND FRAMES

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- a. Lead Lined Frames: Use 9 mm (3/8 inch) diameter bolts.
  - b. Other Frames: Use 6 mm (1/4 inch) diameter bolts.
2. Power actuated drive pins are acceptable to secure frame anchors to concrete floors.
- D. Jamb Anchors:
1. Masonry Walls:
    - a. Embed anchors in mortar.
    - b. Fill space between frame and masonry with grout or mortar as walls are built.
  2. Metal Framed Walls: Secure anchors to sides of studs with two fasteners through anchor tabs.
  3. Prepared Masonry and Concrete Openings:
    - a. Direct Securement: 6 mm (1/4 inch) diameter expansion bolts through spacers.
    - b. Subframe or Rough Buck Securement:
      - i. 1/4-inch diameter expansion bolts on 24-inch centers.
      - ii. Power activated drive pins on 24-inches centers.
    - c. Secure two-piece frames to subframe or rough buck with machine screws on both faces.
- E. Frames for Sound Rated Doors: Fill frames with insulation.
- F. Lead Lined Frames:
1. Extend jambs and anchor with clip angles to structure above.
    - a. Fasteners to Concrete: Minimum two, 3/8-inch diameter expansion bolts or power actuated drive pins.
    - b. Connection to Structural Steel: Welded.
- G. Touch up damaged factory finishes.
1. Repair galvanized surfaces with galvanized repair paint.
  2. Repair painted surfaces with touch up primer

#### 3.04 DOOR INSTALLATION

- A. Install doors plumb and level.
- B. Adjust doors for smooth operation.
- C. Touch up damaged factory finishes.
  1. Repair galvanized surfaces with galvanized repair paint.
  2. Repair painted surfaces with touch up primer.

#### 3.05 CLEANING

Clean exposed door and frame surfaces. Remove contaminants and stains.

#### 3.06 PROTECTION

- A. Protect doors and frames from traffic and construction operations.
- B. Remove protective materials immediately before acceptance.

**DIVISION 08 – OPENINGS**

**SECTION 08 11 00 – METAL DOORS AND FRAMES**

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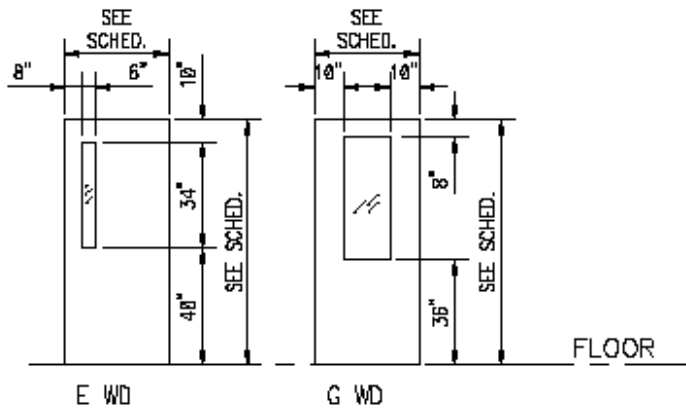
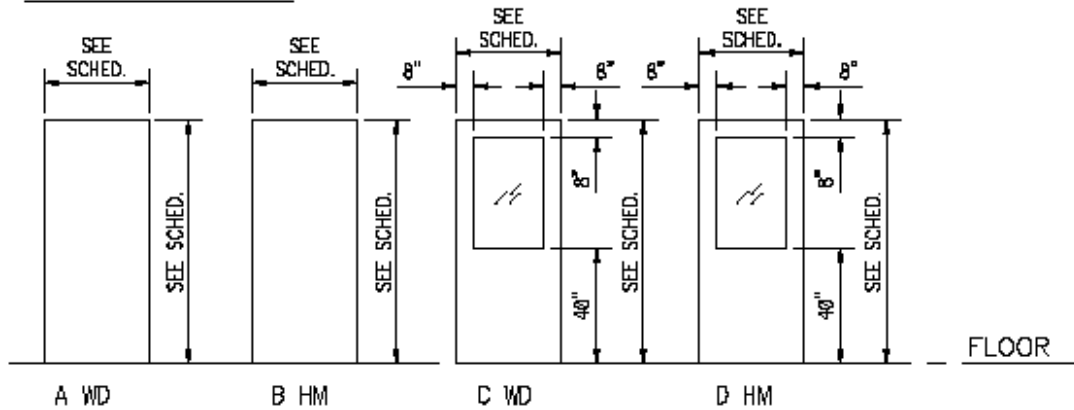
C. Repair damage.

**END OF SECTION**

**DIVISION 08 – OPENINGS**

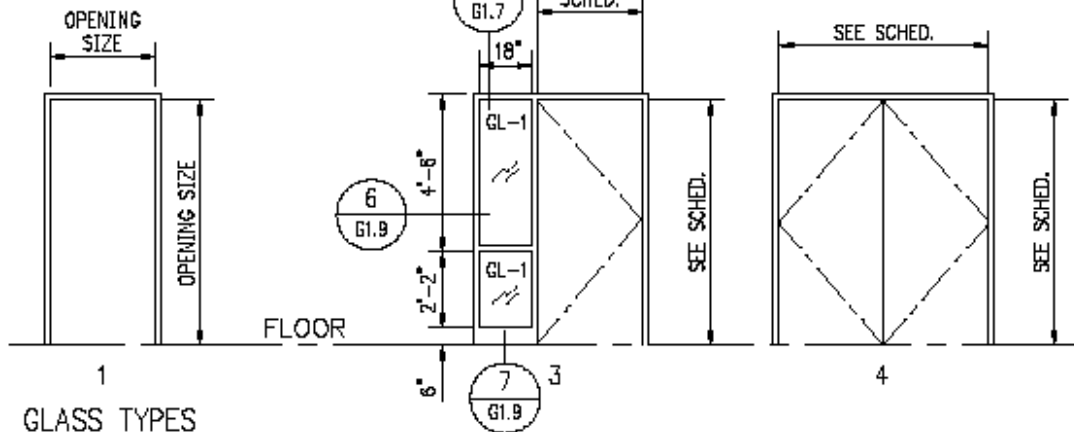
**SECTION 08 11 00 – METAL DOORS AND FRAMES**

TYPICAL DOOR TYPES



TYPICAL FRAME TYPE

(ALL HOLLOW METAL FRAMES 2" U.O.N.)



GLASS TYPES

GL-1 CLEAR SAFETY GLASS



## DIVISION 08 – OPENINGS

### SECTION 08 14 00 – WOOD DOORS

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of wood doors is indicated on the Drawings. The Work shall consist of furnishing all labor, material, and equipment for installation of all wood doors, in accordance with the Drawings and these Specifications. Field-verify all dimensions for materials to be furnished, including verification of member sizing prior to ordering of materials.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American National Standards Institute/Window and Door Manufacturers Association (ANSI/WDMA):
  - 1. I.S. 1A 13 - Architectural Wood Flush Doors.
  - 2. I.S. 6A 13 - Interior Architectural Stile and Rails Doors
- C. American National Standard Institute (ANSI): A 115 Specifications for Door and Frame Preparation
- D. AWI Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program
- E. National Fire Protection Association (NFPA) 80 Standard for Fire Doors and Other Opening Protectives
- F. NFPA 252 Standard Methods of Fire Tests of Door Assemblies
- G. National Wood Window and Door Association (NWWDA), Industry Standard I.S., 1-A, Architectural Wood Flush Doors, 1993 edition
- H. TPU Standard Typical Door and Frames per drawing at the end of Section 08 11 00 – Metal Doors and Frames

##### 1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
  - 1. Regularly manufactures specified products.
- B. Manufactured specified products with satisfactory service on five similar installations for minimum five years.

##### 1.05 SUBMITTALS

- A. Shop Drawings
  - 1. Show size, configuration, and fabrication and installation details.

## DIVISION 08 – OPENINGS

### SECTION 08 14 00 – WOOD DOORS

---

2. Include details of glazing and louvers.
  3. Indicate project specific requirements not included in Manufacturer's Literature and Data submittal.
  4. Elevations of door design type.
  5. Conditions at openings. Show condition at floor/threshold and required clearance at door bottom to clear flooring material on swing side.
  6. Details of construction
  7. Location and installation requirements of finish hardware and reinforcements
  8. Details of joints and connections
  9. Anchorage and accessory items
  10. Schedule of doors and frames. Use same reference numbers for details and openings as those on drawings.
- B. Product Data
1. Manufacturer's specifications, instructions, and literature including fabrication and installation instructions. Show conformance with contract documents.
  2. Manufacturer's standard water-based epoxy primer for approval.
- C. Manufacturer's written certificates attesting the following:
1. Each fire rated door and frame assembly has been designed and fabricated in accordance with NFPA Standard No. 80; tested in accordance to ASTM E 152; and bears a UL, Warnok Hersey, or FM label.
    - a. Indicate that temperature rise rated doors shall be provided where required by code, including for stairwell enclosures, with 450° F maximum temperature rise rating in thirty (30) minutes.
  2. Specified priming procedures, methods and products have been followed.
- D. Color samples:
1. Manufacturer's complete line of transparent finishes for project manager or representative's information.
  2. Match custom finishes requested by project manager or representative.
  3. Final color samples after initial color approval of proposed finished face panel material, 6-inch square. Show finished edge treatment and approved transparent finish color. Obtain approval prior to proceeding.
- E. Test Reports: Indicate each product complies with these specifications.
1. Screw Holding Capacity Test.
  2. Cycle Slam Test.
  3. Hinge Loading Test.
- F. Operation and Maintenance Data:
1. Care instructions for each exposed finish product

#### 1.06 REGULATORY REQUIREMENTS

- A. Comply with City of Tacoma codes, ordinances, and other applicable regulatory requirements.
- B. Fabrication and installation of frame assemblies: NFPA Standard No. 80
- C. Provide UL, Warnok Hersey, or FM label on all doors and frames scheduled to be fire-rated. See door schedule on drawings for rating required. Do not paint over surface-applied labels

## DIVISION 08 – OPENINGS

### SECTION 08 14 00 – WOOD DOORS

---

#### 1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver products in manufacturer's original sealed packaging.
- B. Mark packaging, legibly. Indicate manufacturer's name or brand, type, production run number, and manufacture date.
- C. Before installation, return or dispose of products within distorted, damaged, or opened packaging.
- D. Store products in an indoor dry, weathertight, conditioned facility.
- E. Stack flat on 2-foot x 4-foot lumber, lay 1-foot 0-inches from ends and across center.
- F. Under bottom door and over top of stack, provide protective plywood or corrugated cardboard.
- G. Protect products from damage during handling and construction operations. Any damage to the products shall be repaired or replaced by the Contractor at no cost to the City.

#### 1.08 WARRANTY

Provide manufacturer's one (1) year warranty to start at substantial completion of the project.

### PART 2 - PRODUCTS

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#### 2.01 ACCEPTABLE MANUFACTURERS

- A. Provide 5-ply doors from the following or an approved alternative.
- B. VT Industries (<https://www.vtindustries.com>)
- C. Vancouver Door (<https://vancouverdoorco.com/>)
- D. Lynden Door (<https://www.lyndendoor.com/>)

#### 2.02 GENERAL

- A. Standards for grade and assembly: In accordance with NWWDA Industry Standard I.S. 1-A, latest edition, NFPA 80 for fire rated doors and AWI Standards.
  - 1. Veneer, particle board doors: NWWDA S-5, premium grade.
  - 2. Veneer, mineral core doors: NWWDA S-13, premium grade.
- B. Provide each product from one (1) manufacturer

#### 2.03 MATERIALS

- A. Flush Veneer Doors
  - 1. Face veneer: AWI 1300-S-1, premium grade 1, red oak, rift cut, slip matched, balanced, and sequenced with transparent/stained factory applied finish in accordance with AWI/NWWDA, System 5, (catalyzed polyurethane system).
    - a. Colors and gloss level:
      - i. Rift-cut red oak with clear pre-finish, flush wood door
      - ii. Rift-cut red oak stained to match adjacent doors, flush wood door
  - 2. Cores: Solid core per Section 01300 AWI Standards; PC-5 for 5 or 7-ply doors. Stiles and rails to be bonded to core and outside veneers with Type I glue. Mechanically fastened stiles and rails to core not approved.

## DIVISION 08 – OPENINGS

### SECTION 08 14 00 – WOOD DOORS

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- a. Particleboard cores: Non-rated and 20 minute label doors.
  - b. Mineral cores: Fire rated assemblies to meet code.
3. Vertical edges: Concealed edge, close grain hardwood, matching face veneer species and color.
    - a. Ease edges
    - b. No visible joints
    - c. No finger joints on lock side
  4. Hardware reinforcement blocking: As applicable for hardware installation including the following:
    - a. Veneer particleboard core: NWWDA S-5
      - i. Closers: 5-inch high top rail, NWWDA, HB-1
      - ii. Flushbolts: 5-inch high top and bottom rail, NWWDA, HB-1 and HB-2
    - b. Veneer mineral core doors: NWWDA S-11
      - i. Exit devices: 5-inch high blocking, NWWDA, HB-3
      - ii. Mortise locks: 5-inch x 18-inch blocking, NWWDA, HB-4
      - iii. Panic exit devices: 10-inch high intermediate rail blocking. Note that this is more stringent than HB-6 requirement for 5-inch blocking.
      - iv. Other: NWWDA HB-8 and as required to meet requirements for indicated
- B. Door Lights
1. Vision panel molding, edging and trimming: NWWDA, G-12, construction details:
    - a. Interior doors - non-rated: M1, wood recessed molding, squared.
    - b. Interior doors - rated: Match non-rated wood stop profile. Include concealed rated metal glass clip or angle conforming to AWI-1300-G-4, and as required by code. Metal vision frames not approved.
  2. Glass: 1/4-inch tempered in accordance with Section 08800 – Glass and Glazing, except 1/4-inch wire glass where required by code.

## 2.04 FABRICATION

### A. General

1. Doors are to be milled to accommodate metal frames as specified in Section 08 11 00 – Metal Doors and Frames
2. Fabricate units to be rigid, neat in appearance, free from defects, warp or buckle.
3. Wherever practicable, fit and assemble units in manufacturer's plant. Clearly identify work that cannot be permanently factory-assembled at project site.
4. Completely sand the face of the door prior to application of the final stain finish.
5. Telegraphing of edges or bleeding through of glue face veneers will result in rejection of the door at no cost to the City.
6. Allow clearance for flooring as required.
7. In the event of a dispute as to quality grade, all parties to the contract will:
  - a. Call upon AWI for an inspection under AWI's established inspection procedures and
  - b. Agree to abide by AWI's decision

## DIVISION 08 – OPENINGS

### SECTION 08 14 00 – WOOD DOORS

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#### B. Fabrication Tolerances

1. Fabricate to fit properly; uniform clearance at each edge. Unless more stringent requirements prevail, conform to above referenced AWI.
  - a. Bevel labeled doors 1/16-inch in 2-inch at lock edge
  - b. Bevel non-labeled doors in 1/8-inch in 2-inch at lock and hinge edges
  - c. Machine for hardware and the like. Seal cut surfaces after fitting and machining.
  - d. Ease edges/doors and stops to 1/16-inch radius.
  - e. Cut and fit stops; install with screws.

#### C. Steel Frames

1. Provide 16-gauge metal door, sidelight and relight frames of types and styles indicated on drawings or schedules and complying with manufacturers specifications and ANSI/SDI A250.8-2023 for minimum materials and construction requirements.
2. Conceal fastenings: Dap frames and body putty flush with frame to make fastenings invisible as applicable.
3. Pressed steel frames with 2-inch face, 1/2-inch returns, double rabbet with 5/8-inch stop.
4. Fabricate frames of welded construction as required for rated and non-rated assemblies, all corners mitered. Knock-down frames not permitted.
5. Plaster guards: Provide 26-gauge steel plaster guards or mortar boxes, welded to frame, at back of finish hardware cutouts where finish materials might obstruct hardware operation.
6. Accessories: Include glazing stops for new and existing hollow metal doors, frames and relights.

### 2.05 CLEARANCES

For non-labeled doors 1/8-inch at jambs and heads; 1/8-inch at meeting stiles for pairs of doors; and 1/2-inch from bottom of door to top of decorative floor finish or covering. But where threshold is indicated, provide 1/4-inch clearance from bottom of door to top of threshold.

### 2.06 FIRE RATED DOORS

- A. Install in corresponding fire rated frames/NFPA No. 80
- B. Clearances for fire rated doors/NFPA No. 80.1

## PART 3 - EXECUTION

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### 3.01 PREPARATION

- A. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.
- B. Examine and verify substrate suitability for product installation.
  1. Verify door frames are properly anchored.

## **DIVISION 08 – OPENINGS**

### **SECTION 08 14 00 – WOOD DOORS**

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2. Verify door frames are plumb, square, in plane, and within tolerances for door installation.
- C. Protect existing construction and completed work from damage.

#### **3.02 INSTALLATION - GENERAL**

- A. Install products according to manufacturer's instructions, AWI and UL quality standards, and accepted submittal drawings.
- B. When manufacturer's instructions deviate from specifications, submit proposed resolution to the Contract Task Order project manager or representative for consideration.
- C. Pilot drill screw and bolt holes.
- D. Maximum diagonal distortion (warp) shall not exceed 1/8-inch, measured with straight edge or taut string, corner to corner, over an imaginary 36-inch by 84-inch surface area.
- E. Maximum vertical distortion (bow) shall not exceed 1/8-inch, measured with straight edge or taut string, top to bottom, over an imaginary 36-inch by 84-inch surface area.
- F. Maximum width distortion (cup) shall not exceed 1/8-inch, measured with straight edge or taut string, edge to edge, over an imaginary 3-inch by 84-inch surface area.
- G. Adjust all doors for smooth and balanced door movement.
- H. Note that warped doors, doors that show telegraphing of cores in face veneers or do not conform to tolerances of reference standards, will require removal and replacement by the Contractor at no cost to the City.
- I. Closers are required to be through-bolted/all doors other than solid wood core

#### **3.03 CLEANING**

Clean exposed door and frame surfaces. Remove contaminants and stains.

#### **3.04 PROTECTION**

- A. After installation, place shipping container over door and tape in place.
  1. Do not apply tape to door faces and edges.
- B. Provide protective covering over exposed hardware in addition to covering door.
- C. Maintain covering in good condition until removal is directed by the Contract Task Order project manager or representative.

<b>END OF SECTION</b>
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## DIVISION 08 – OPENINGS

### SECTION 08 41 00 – ENTRANCES, STOREFRONTS, AND CURTAIN WALLS

---

#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of this section is indicated on the Drawings. The Work shall consist of furnishing all labor, material, and equipment for installation of all tempered glass swing doors and sidelites, in accordance with the Drawings and these Specifications. Field-verify all dimensions for materials to be furnished, including verification of member sizing prior to ordering of materials.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American National Standards Institute (ANSI) Z97.1 for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test
- C. Architectural Aluminum Manufacturers Association (AAMA) Section 2605 - Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels
- D. AAMA A440 – Windows, Doors, and Skylights
- E. Consumer Products Safety Commission (CPSC)-CPSC16CFR1201 – Safety Standard for Architectural Glazing Materials.
- F. National Association of Architectural Metal Manufacturers (NAAMM).

##### 1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
  - 1. Regularly manufactures specified products.
  - 2. Manufactured specified products with satisfactory service on five similar installations for minimum five years.
- B. Installer Qualifications:
  - 1. Regularly installs specified products.
  - 2. Installed specified products with satisfactory service on five similar installations for minimum five years.

##### 1.05 SUBMITTALS

- A. Shop Drawings
  - 1. Show size, configuration, and fabrication and installation details.
  - 2. Include details of glazing

## **DIVISION 08 – OPENINGS**

### **SECTION 08 41 00 – ENTRANCES, STOREFRONTS, AND CURTAIN WALLS**

---

3. Indicate project specific requirements not included in Manufacturer's Literature and Data submittal.
  4. Elevations of door/sidelite design type.
  5. Conditions at openings. Show condition at floor/threshold and required clearance at door bottom to clear flooring material on swing side.
  6. Details of construction
  7. Location and installation requirements of finish hardware and reinforcements
  8. Details of joints and connections
  9. Anchorage and accessory items
  10. Schedule of doors and frames. Use same reference numbers for details and openings as those on drawings.
- B. Product Data
1. Manufacturer's specifications, instructions, and literature including fabrication and installation instructions. Show conformance with contract documents.
- C. Color samples:
1. Manufacturer's complete line of finishes for the Contract Task Orders project manager or representative's information.
  2. Samples of glass for color and thickness.
  3. Samples of door rail for color and thickness
- D. Operation and Maintenance Data:
1. Care instructions for each exposed finish product

#### **1.06 REGULATORY REQUIREMENTS**

- A. Comply with City of Tacoma codes, ordinances, and other applicable regulatory requirements.
- B. Fabrication and installation of frame assemblies: NFPA Standard No. 80
- C. Provide UL, Warnok Hersey, or FM label on all doors and frames scheduled to be fire-rated. See door schedule on drawings for rating required. Do not paint over surface-applied labels

#### **1.07 DELIVERY, STORAGE AND HANDLING**

- A. Deliver products in manufacturer's original sealed packaging.
- B. Mark packaging, legibly. Indicate manufacturer's name or brand, type, production run number, and manufacture date.
- C. Before installation, return or dispose of products within distorted, damaged, or opened packaging.
- D. Store products in an indoor dry, weathertight, conditioned facility.
- E. Protect products from damage during handling and construction operations. Any damage to the products shall be repaired or replaced by the Contractor at no cost to the City.

#### **1.08 WARRANTY**

Provide manufacturer's one (1) year warranty to start at substantial completion of the project.



## DIVISION 08 – OPENINGS

### SECTION 08 41 00 – ENTRANCES, STOREFRONTS, AND CURTAIN WALLS

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#### PART 2 - PRODUCTS

---

##### 2.01 GENERAL

Provide each product from one (1) manufacturer

##### 2.02 MATERIALS

###### A. Aluminum:

1. Sheet Metal: ASTM B209M (ASTM B209), minimum 1.6 mm (0.063 inch) thick.
2. Extrusions: ASTM B221M (ASTM B221).
  - a. Framing: Minimum 3 mm (0.125 inch) wall thickness.
  - b. Glazing Beads, Moldings, and Trim: Minimum 1.25 mm (0.050 inch) thick.
3. Alloy 6063 temper T5 for doors, door frames, fixed glass sidelights
4. Alloy 6061 temper T6 for guide tracks for sliding doors and other extruded structural members.
  - a. Color Anodized Aluminum: Provide aluminum alloy required to produce specified color.
5. Stainless Steel: ASTM A240/A240M; Type 302 or Type 304.
6. Thermal Break: Manufacturer standard low conductive material retarding heat flow in the framework, where insulating glass is scheduled.

###### B. Entry Doors

1. Approved Manufacturers
  - a. Hartung Glass Industries (<https://www.hartung-glass.com/>)
  - b. CRL (<https://www.crlaurence.com/about-us>)
  - c. Or Contract Task Order project manager or representative approved equal
2. Glass: 1/4" clear tempered glass, horizontally tempered, tong marks are unacceptable.
  - a. Warpage shall comply with ANSI Z97.1, ASTM C1048 and ASTM 1036.
3. Rails and Fittings: full-length top and bottom rails shall be style 'T' 6063-T5 aluminum extrusion as shown on shop drawings.
  - a. Top and bottom rails shall be nominally 2-1/8" in height on doors and sidelites, although other rail heights may be proposed.
  - b. Door header tube shall be nominally 6-1/2" x 2-1/8" or such other size as required to house door closers and electric strikes. M
4. Finish for Rails and Fittings: US32 polished stainless steel.
  - a. All exposed surfaces will be free of scratches and other serious blemishes.

###### C. Sidelites

1. Approved Manufacturers
  - a. Hartung Glass Industries (<https://www.hartung-glass.com/>)
  - b. CRL (<https://www.crlaurence.com/about-us>)
  - c. Or Contract Task Order project manager or representative approved equal
2. Glass: 1/4" frosted, tempered glass to match door glass.

## DIVISION 08 – OPENINGS

### SECTION 08 41 00 – ENTRANCES, STOREFRONTS, AND CURTAIN WALLS

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3. Rails and Fittings: full length bottom rails only to match door rails.
4. Finish for Rails and Fittings: to match finish on door rails

#### D. Hardware

Install all materials in accordance with approved shop drawings, samples and manufacturer's literature.

1. Door Handles/Pulls shall be active tubular exit devices as manufactured by Grandview Glass (model GV-100), Blumcraft (H-100A), or CR Lawrence (PA-100 Series).
  - a. Contractor may request use of an alternate item Using CHMI's SmartTouch exit devices, but preference will be given to active tubular exit devices.
  - b. Any Solution shall be UL Listed.
2. Door Pivots. Door Pivots shall be manufacturer's standard pivots for center-hung all-glass doors.
3. Electrified Locking Hardware shall be Folger-Adams model 310series double door electric strike in US32 finish.
  - a. The Contractor may request of an alternate product using CHMI's SmartTouch Exit Devices which may be proposed using Securitron Electromagnetic Locks, but preference will be given to product that include tubular exit devices used in conjunction with electric strikes.
4. Overhead Door Closers shall be Dorma #RTS-88 or equal.
  - a. Closer must meet ADA standards for accessibility with the doors provided and installed.
5. To ensure single-source responsibility and timely coordination, hardware and glass doors are to be provided by a single manufacturer.
6. Lock cylinders for doors are to be master-keyed, and thus are included Section 08 71 00 – Door Hardware

### 2.03 FABRICATION

- A. Form metal parts and fit and assemble joints, except joints designed to accommodate movement. Seal joints to resist air infiltration and water penetration.
- B. Welding:
  1. Make welds without distorting and discoloring exposed surfaces.
  2. Clean and dress welds. Remove welding flux and weld spatter.
- C. Prepare and reinforce doors and frames for hardware and accessories.
  1. Coordinate preparation with specified hardware. See Section 08 71 00, Door Hardware.
  2. Fabricate reinforcement from stainless steel plates.
    - a. Hinge and pivot reinforcing: Minimum 4.5 mm (0.179 inch) thick.
    - b. Lock Face, Flush Bolts, Concealed Holders, Concealed and Surface Mounted Closers Reinforcing: Minimum 2.6 mm (0.104 inch) thick.

## **DIVISION 08 – OPENINGS**

### **SECTION 08 41 00 – ENTRANCES, STOREFRONTS, AND CURTAIN WALLS**

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- c. Other Surface Mounted Hardware Reinforcing: Minimum 1.5 mm (0.059 inch) thick. 3. Where concealed hardware is specified, provide space, cutouts, and reinforcement for installation and secure fastening.
3. Factory assembled doors.

### **PART 3 - EXECUTION**

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#### **3.01 PREPARATION**

- A. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.
- B. Examine and verify substrate suitability for product installation.
  1. Verify door frames are properly anchored.
  2. Verify door frames are plumb, square, in plane, and within tolerances for door installation.
- C. Protect existing construction and completed work from damage.

#### **3.02 INSTALLATION - GENERAL**

- A. Install products according to manufacturer's instructions and approved submittal drawings.
  1. When manufacturer's instructions deviate from specifications, submit proposed resolution for Contract Task Orders project manager or representatives' consideration.
- B. Install aluminum framed entrances and storefronts plumb and true, in alignment and to lines shown on drawings.
- C. Anchor frames to adjoining construction at heads, jambs and sills.
- D. Provide concealed aluminum clips to connect adjoining frame sections. Install door hardware and hang doors. See Section 08 71 00, Door Hardware.
- E. Adjust doors and hardware uniform clearances and proper operation.
- F. Touch up damaged factory finishes per the manufacturers recommendations.
- G. Repair painted surfaces with touch up primer.
- H. Tolerances:
  1. Variation from Plumb, Level, Warp, and Bow: Maximum 3 mm in 3 meters (1/8 inch in 10 feet).
  2. Variation from Plane: Maximum 3 mm in 3.65 meters (1/8 inch in 12 feet); 6 mm (1/4 inch) over total length.
  3. Variation from Alignment: Maximum 1.5 mm (1/16 inch) in-line offset and maximum 3 mm (1/8 inch) corner offset.
  4. Variation from Square: Maximum 3 mm (1/8 inch) diagonal measurement differential.

#### **3.03 CLEANING**

Clean all exposed surfaces. Remove contaminants and stains.

## **DIVISION 08 – OPENINGS**

### **SECTION 08 41 00 – ENTRANCES, STOREFRONTS, AND CURTAIN WALLS**

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#### **3.04 PROTECTION**

- A. After installation protect from construction operations.
- B. Provide protective covering over exposed hardware in addition to covering door.
- C. Maintain covering in good condition until removal is directed by the Contract Task Order project manager or representative.

#### **3.05 MAINTENANCE**

The Contractor shall provide a complete Operations and Maintenance Manual detailing door operation, required closer maintenance, finish maintenance, etc.

<b>END OF SECTION</b>
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## DIVISION 08 – OPENINGS

### SECTION 08 51 00 – METAL WINDOWS

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of this section is indicated on the Drawings. The Work shall consist of furnishing all labor, material, and equipment for installation of all metal windows, in accordance with the Drawings and these Specifications. Field-verify all dimensions for materials to be furnished, including verification of member sizing prior to ordering of materials.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American Architectural Manufacturers Associations (AAMA): AAMA/WDMA/CSA 101/I.S.2/A440 Windows, Doors, and Skylights.
- C. AAMA 505 Dry Shrinkage and Composite Performance Thermal Cycle Test Procedures.
- D. AAMA 2605 Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- E. AAMA TIR A8-16 Structural Performance of Composite Thermal Barrier Framing System
- F. National Association of Architectural Metal Manufacturers (NAAMM).

##### 1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
  - 1. Regularly manufactures specified products.
  - 2. Manufactured specified products with satisfactory service on five similar installations for minimum five years.
- B. Provide contact names and addresses for completed projects when requested by Contract Task Orders project manager or representative.
- C. Quality Certified Labels or Certificates:
  - 1. AAMA Label affixed to each window indicating compliance with specification.
  - 2. Certificates in lieu of label with copy of test report maximum 4 years old from independent testing laboratory and certificate signed by window manufacturer stating that windows provided comply with specified requirements and AAMA/WDMA/CSA 101/I.S.2/A440 for type of window specified.

## **DIVISION 08 – OPENINGS**

### **SECTION 08 51 00 – METAL WINDOWS**

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#### **1.05 SUBMITTALS**

##### A. Shop Drawings

1. Show size, configuration, and fabrication and installation details.
2. Include details of glazing
3. Indicate project specific requirements not included in Manufacturer's Literature and Data submittal.
4. Elevations of continuous work at 1/4-inch scale and typical window unit elevations at 3/4-inch scale.
5. Details of construction
6. Location and installation requirements of finish hardware and reinforcements
7. Details of joints and connections
8. Anchorage and accessory items
9. Schedule of windows. Use same reference numbers for details and openings as those on drawings.

##### B. Product Data

1. Manufacturer's specifications, instructions, and literature including fabrication and installation instructions. Show conformance with contract documents.

##### C. Samples:

For Initial Color Selection: Submit samples of each specified finish on 12-inch long sections of window members. Where finishes involve normal color variations, include sample sets showing the full range of variations expected

##### D. Operation and Maintenance Data:

1. Care instructions for each exposed finish product

#### **1.06 DELIVERY, STORAGE AND HANDLING**

A. Deliver products in manufacturer's original sealed packaging.

B. Mark packaging, legibly. Indicate manufacturer's name or brand, type, production run number, and manufacture date.

C. Prior installation, return or dispose of products within distorted, damaged, or opened packaging.

D. Protect windows from damage during handling and construction operations before, during and after installation.

E. Store windows under cover, setting upright.

F. Do not stack windows flat.

G. Do not lay building materials or equipment on windows.

#### **1.07 WARRANTY**

##### A. Aluminum Window Warranty

Submit a written warranty, executed by the window manufacturer, agreeing to repair or replace window units that fail in materials or workmanship within the specified warranty period. Failures to include, but are not necessarily limited to:

1. Structural failures including excessive deflection, excessive leakage, or air infiltration.
2. Faulty operation of sash and hardware.

## **DIVISION 08 – OPENINGS**

### **SECTION 08 51 00 – METAL WINDOWS**

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3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
- B. Warranty Period.
- Three (3) years after the date of substantial completion

## **PART 2 - PRODUCTS**

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### **2.01 MANUFACTURERS**

Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include, but are not limited to, the following:

1. Northwest Aluminum "Marlin" Series 1500/1505 2-1/4-inch fixed frame without nailing fin
2. Or Contract Task Order project manager or representative approved equal

### **2.02 MATERIALS**

- A. Aluminum:
1. Aluminum Extrusions: ASTM B221M (ASTM B221); 6063 alloy, T5 temper.
  2. Aluminum Sheet: ASTM B209M (ASTM B209); 5005 alloy, H15 or H34 temper..
- B. Window Grade: Architectural Grade, AAMA HC-50
- C. Glazing: Insulating glazing units (argon filled, low E). "U" value maximum of .69 BTU hour/sf/degree F at 15 mph exterior wind velocity.
- D. Glazing Color: Clear
- E. Construction: Thermal Break Type
- F. Anchor, Clips and Window Accessories: Aluminum, non-magnetic stainless steel or other materials warranted by the manufacturer to be non-corrosive and compatible with aluminum window members, trim, hardware, anchors, and other components of window units.
- G. Finish: Class II clear anodized.
- H. Sealant: For sealants required within fabricated window units, provide type recommended by the manufacturer for joint size and movement. Sealant shall remain permanently elastic, non-shrinking and non-migrating.

### **2.03 FABRICATION**

- A. Provide units that are re-glazable without dismantling sash.
- B. Thermal Break Construction: Fabricate window units with an integral concealed low-conductance thermal barrier, located between exterior materials and window members exposed on the interior, in a manner that eliminates direct metal-to-metal contact.
- C. Weepholes: Provide weepholes and internal passages to conduct infiltrating water to the exterior.
- D. Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections in the manner indicated.

## DIVISION 08 – OPENINGS

### SECTION 08 51 00 – METAL WINDOWS

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- E. Glazing Stops: Provide screw-applied or snap-on glazing stops, coordinated with glass selection and glazing system indicated. Finish glazing stops to match window units.

## PART 3 - EXECUTION

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### 3.01 PREPARATION

- A. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.
- B. Examine and verify substrate suitability for product installation.
  - 1. Verify openings are within acceptable tolerances.
- C. Protect existing construction and completed work from damage.
- D. Replacement of Existing Windows
  - 1. Remove existing windows to permit new installation when replacement window is available, and ready for immediate installation.
    - a. Remove existing work carefully; avoid damage to existing work indicated to remain.
    - b. Perform other operations as necessary to prepare openings for proper installation and operation of new windows.
    - c. Do not leave openings uncovered at end of working day, during precipitation or temperatures below 16 degrees C (60 degrees F).
    - d. Provide 1/2-inch thick plywood temporary security closure panels at openings to receive metal windows during fabrication of windows.

### 3.02 INSTALLATION - GENERAL

- A. Install products according to manufacturer's instructions and approved submittal drawings.
  - 1. When manufacturer's instructions deviate from specifications, submit proposed resolution for Contract Task Orders project manager or representatives' consideration.
- B. Set window units plumb, level, and true to line, without warp or rack of frames or sash. Provide proper support and anchor securely in place.
- C. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials by complying with the requirements specified under paragraph "Dissimilar Materials" in the Appendix to AAMA 101.
- D. Set sill members and other members in a bed of compound or with joint fillers or gaskets, as shown, to provide weathertight construction. Refer to the "Joint Sealer" Sections of Division 7 for compounds, fillers, and gaskets to be installed concurrently with window units. Coordinate installation with wall flashings and other components of the work.
- E. Adjust operating sash and hardware to provide a tight fit at contact points and at weatherstripping for smooth operation and a weathertight closure.



## **DIVISION 08 – OPENINGS**

### **SECTION 08 51 00 – METAL WINDOWS**

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#### **3.03 CLEANING**

- A. Clean aluminum surfaces promptly after installation of windows. Exercise care to avoid damage to protective coatings and finishes. Remove excess glazing and sealant compounds, dirt, and other substances.
- B. Clean glass of pre-glazed units promptly after installation of windows. Comply with requirements of the "Glass and Glazing" Section for cleaning and maintenance.

#### **3.04 PROTECTION**

- A. After installation protect from construction operations.
- B. Maintain covering in good condition until removal is directed by the Contract Task Order project manager or representative.

<b>END OF SECTION</b>
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## DIVISION 08 – OPENINGS

### SECTION 08 71 00 – DOOR HARDWARE

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of this section is indicated on the Drawings. The Work shall consist of furnishing all labor, material, and equipment for installation of all door hardware, in accordance with the Drawings and these Specifications. Field-verify all dimensions for materials to be furnished, including verification of member sizing prior to ordering of materials.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA)
- C. Architectural Barriers Act Accessibility Standards (ABAAS)
- D. National Fire Protection Association (NFPA) 80 Fire Doors and Other Opening Protectives
- E. NFPA 101 Life Safety Code
- F. Underwriters Laboratories, Inc. (UL): Building Materials Directory

##### 1.04 GENERAL

- A. The Contractor shall be required to work with the Contract Task Order project or representative to verify all hardware requirements for each Contract Task Order.
- B. Contractor shall be required to submit invoices for all hardware purchases outside of the hardware groups (HW1 thru HW6 indicated in Part 3 – Hardware Groups) and a change order will be issued according to actual costs, with mark-up applied at the cost plus rate specified in bidder's proposal item 53 – Furnished Labor & Materials at Cost Plus.
- C. All hardware shall comply with ABAAS, (Architectural Barriers Act Accessibility Standard) unless specified otherwise.
- D. Provide rated door hardware assemblies where required by most current version of the International Building Code (IBC).
- E. Hardware for Labeled Fire Doors and Exit Doors: Conform to requirements of NFPA 80 for labeled fire doors and to NFPA 101 for exit doors, as well as to other requirements specified. Provide hardware listed by UL, except where heavier materials, large size, or better grades are specified herein. In lieu of UL labeling and listing, test reports from a nationally recognized testing agency may be submitted

## DIVISION 08 – OPENINGS

### SECTION 08 71 00 – DOOR HARDWARE

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showing that hardware has been tested in accordance with UL test methods and that it conforms to NFPA requirements.

- F. Hardware for application on metal and wood doors and frames shall be made to standard templates. Furnish templates to the fabricator of these items in sufficient time so as not to delay the construction.

#### 1.05 QUALITY ASSURANCE

##### A. Qualifications

1. Obtain each kind of hardware (latch and lockets, exit devices, hinges and closers) from only one (1) manufacturer, although several may be indicated as offering products complying with requirements.
2. Hardware supplier shall be a direct factory contract supplier who has in his employment a certified hardware consultant (AHC) who is available at all reasonable times during the course of the project, and for project hardware consultation to the project manager or representative.

##### B. Electronic Security Hardware

Coordinate installation of the electronic security components with the Contract Task Order project manager or representative when required and provide installation and technical data to the Contract Task Order project manager or representative. Upon completion of the electronic security hardware installation, verify that all components are working properly and state in the required guarantee that this inspection has been performed.

#### 1.06 SUBMITTALS

- A. The Contractor shall prepare and submit a Hardware Schedule that shall include but not limited to the following:

1. Hardware Item
2. Quantity
3. Size
4. Finish
5. Manufacturer Name and Catalog Number
6. Key Control Symbols
7. UL Mark (if fire rated and listed)
8. ANSI/BHMA Finish Designation

- B. Samples and Manufacturers' Literature:

1. Samples: All hardware items (proposed for the project) that have not been previously approved by Builders Hardware Manufacturers Association shall be submitted for approval. Tag and mark all items with manufacturer's name, catalog number and project number.
2. Samples are not required for hardware listed in the specifications by manufacturer's catalog number, if the contractor proposes to use the manufacturer's product specified.

- C. Certificate of Compliance and Test Reports: Submit certificates that hardware conforms to the requirements specified herein. Certificates shall be accompanied by copies of reports as referenced. The testing shall have been conducted either in the manufacturer's plant and certified by an independent testing laboratory or conducted in an independent laboratory, within four years of submittal of reports for approval

## DIVISION 08 – OPENINGS

### SECTION 08 71 00 – DOOR HARDWARE

#### 1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver items of hardware to job site in their original containers, complete with necessary appurtenances including screws, keys, and instructions.
- B. Tag one of each different item of hardware and deliver to Contract Task Order project manager or representative for reference purposes.
- C. Tag shall identify items by Project Specification number and manufacturer's catalog number.
- D. These items shall remain on file in Contract Task Orders project manager or representatives office until all other similar items have been installed in project, at which time the Contract Task Order project manager or representative will deliver items on file to Contractor for installation in predetermined locations on the project.

#### PART 2 - PRODUCTS

#### 2.01 MANUFACTURERS

- A. Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include, but are not limited to, the following:

<b><u>Item</u></b>	<b><u>Manufacturer</u></b>	<b><u>Acceptable Substitute</u></b>
Hinges	Stanley ( <a href="https://www.stanleyhinges.com/">https://www.stanleyhinges.com/</a> )	Hager ( <a href="https://www.hagerco.com/">https://www.hagerco.com/</a> ) Lawrence ( <a href="https://lawrencehardware.com/">https://lawrencehardware.com/</a> )
Locks	Best ( <a href="https://www.bestaccess.com/">https://www.bestaccess.com/</a> )	None
Cylinders	Best ( <a href="https://www.bestaccess.com/">https://www.bestaccess.com/</a> )	None
Exit Devices	Von Duprin ( <a href="https://www.vonduprin.com/en/index.html">https://www.vonduprin.com/en/index.html</a> )	None
Flush Bolts	Ives ( <a href="https://www.iveshinges.com/">https://www.iveshinges.com/</a> )	Trimco ( <a href="https://trimcohardware.com/">https://trimcohardware.com/</a> ) Rockwood ( <a href="https://www.rockwoodmfg.com/en">https://www.rockwoodmfg.com/en</a> )
Silencers	Ives ( <a href="https://www.iveshinges.com/">https://www.iveshinges.com/</a> )	Trimco ( <a href="https://trimcohardware.com/">https://trimcohardware.com/</a> ) Hager ( <a href="https://www.hagerco.com/">https://www.hagerco.com/</a> )
Kick Plates	Ives ( <a href="https://www.iveshinges.com/">https://www.iveshinges.com/</a> )	Trimco ( <a href="https://trimcohardware.com/">https://trimcohardware.com/</a> ) Rockwood ( <a href="https://www.rockwoodmfg.com/en">https://www.rockwoodmfg.com/en</a> )
Stops	Trimco ( <a href="https://trimcohardware.com/">https://trimcohardware.com/</a> )	Ives ( <a href="https://www.iveshinges.com/">https://www.iveshinges.com/</a> ) Rockwood ( <a href="https://www.rockwoodmfg.com/en">https://www.rockwoodmfg.com/en</a> )
Thresholds	National Guard Products ( <a href="https://www.ngp.com/">https://www.ngp.com/</a> )	Pemco ( <a href="https://www.pemko.com/en">https://www.pemko.com/en</a> ) Reese ( <a href="https://www.reeseusa.com/">https://www.reeseusa.com/</a> )

## DIVISION 08 – OPENINGS

### SECTION 08 71 00 – DOOR HARDWARE

<b>Item</b>	<b>Manufacturer</b>	<b>Acceptable Substitute</b>
Seals and Bottoms	National Guard Products ( <a href="https://www.ngp.com/">https://www.ngp.com/</a> )	Pemco ( <a href="https://www.pemko.com/en">https://www.pemko.com/en</a> ) Reese ( <a href="https://www.reeseusa.com/">https://www.reeseusa.com/</a> )
Closers	LCN ( <a href="https://www.lcnclosers.com/en/index.html">https://www.lcnclosers.com/en/index.html</a> )	None

- B. Furnish all items of hardware required to complete the work in accordance with specifications and plans.
- C. Carefully inspect project for the extent of the finish hardware required to complete the work. Where there is conflict between these specifications and the existing hardware, furnish finish hardware to this specification.

#### 2.02 MATERIALS

##### A. Hinges:

Out-swinging exterior doors shall have non-removable (NRP) pin. All hinge open widths shall be minimum, but of sufficient size to permit door to swing 180 degrees. Furnish heavy duty hinges with five (5) knuckles and flush bearing.

1. Furnish three (3) hinges per leaf to 7-foot 6-inch height. Add one (1) for each additional 30-inches in height or fraction, thereof.
2. Provide hinges as listed in schedule.

##### B. Locksets:

All locksets and latch sets shall be as specified. Strikes shall be 16-gauge curved brass, bronze or stainless steel with a 1-inch deep box construction and have sufficient length to clear trim and protect clothing.

1. Locks shall have minimum 3/4-inch throw. All dead bolt functions shall have 1-inch minimum throw.
2. Comply with requirements of local security ordinances.
3. Lock Series and Design: Best 45 H series mortise.
4. Cylinders and Cores: Best 7-pin.

##### C. Exit Devices:

1. Furnish all sets at wood doors with hex bolts unless otherwise specified. Lever handle trim shall match locksets.
2. All touch bar type devices shall have deadlocking latch bolt, stainless steel touch pads and be non-handed.
3. Device push bar must release with 32 lbs. maximum pressure when 250 lbs. of pull is applied against the pull side of door.

##### D. Silencers:

Furnish silencers on all interior frames, three (3) for single doors, two (2) for pairs. Omit where any type of seals occur.

##### E. Kick Plates:

Provide with four (4) beveled edges, 10-inches high by width less 2-inches on single doors and 1-inch on pairs of doors. Furnish Type "A" screws to match finish.

## DIVISION 08 – OPENINGS

### SECTION 08 71 00 – DOOR HARDWARE

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#### F. Surface Door Closers

Full rack and pinion type with removable non-ferrous cover. Provide hex bolts at all wood doors. Place closers inside of building, stairs and rooms. Closers shall be non-sized and adjustable.

1. Provide multi-size 1 through 6 at all doors rated or not.
2. Flush transom offset brackets shall be used where parallel arm closers are listed for doors with fixed panels over.
3. Drop brackets are required at narrow head rails.
4. Set exterior door closers to have 8.5 lbs. maximum pressure to open, interior non-rated at 5 lbs., rated openings at 12 lbs.

#### G. Screws

All exposed screws shall be Phillips head

#### H. Seals

All seals shall be finished to match adjacent frame color. Seals shall be furnished as listed in schedule. Material shall be UL listed for labeled openings.

### 2.03 FINISH

#### A. Generally to be BHMA 626 satin chrome except:

1. Exterior Butts: US32D
2. Locksets, Latch Sets: US32D
3. Push Plates, Pull Plates: US32D
4. Kick Plates, Mopplates: Clear acrylic plastic laminate

#### B. Spray door closers to match other hardware, unless otherwise noted.

#### C. Aluminum items shall be finished to match predominant adjacent material. Seals to coordinate with frame color.

### 2.04 KEYING REQUIREMENTS

#### A. Provide construction cores and keys during the construction period. Construction control and operating keys and core shall not be part of the City's permanent keying system or furnished on the same keyway (or key section) as the City's permanent keying system. Permanent cores and keys, prepared according to the accepted keying schedule, will be furnished to the City by the local Best factory representative prior to occupancy.

#### B. All cylinders shall be Best 7-pin housings, utilizing Best interchangeable cores.

#### C. Permanent keys and cores shall be stamped with the applicable key mark for identification. These visual key control marks or codes will not include the actual key cuts. Permanent keys will also be stamped, "DO NOT DUPLICATE."

#### D. Grand master keys, master keys and other security keys shall be transmitted to the City by registered mail, return receipt requested.

## DIVISION 08 – OPENINGS

### SECTION 08 71 00 – DOOR HARDWARE

#### PART 3 - EXECUTION

##### 3.01 PREPARATION

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

##### 3.02 INSTALLATION - GENERAL

- A. Install each hardware item per manufacturer's instructions and recommendations, and industry standards.
- B. Do not install surface mounted items until finishes have been completed on the substrate.
- C. Set units level, plumb and true to line and location.
- D. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.

##### 3.03 HARDWARE GROUPS

- A. The following schedule of hardware groups shall be considered a guide only, and the supplier is cautioned to refer to general conditions, and the preamble of this section.
- B. It shall be the hardware supplier's responsibility to furnish all hardware required for a complete, professional, and functional installation.
- C. Provide hardware as specified in the previous articles and the following sets:

<b>HW1 (Passage Doors/Conference Rooms)</b>			
<i>Quantity</i>	<i>Hardware Component</i>	<i>Approved Manufacturer</i>	<i>Product Number</i>
3 EA	Hinges	Hager	BB1168 4.5X4.5 NRP 626
1 EA	Lockset	Best	45H7N16H626
1 EA	Wall Stop	Trimco	1270CV
3 EA	Silencers	Ives	SR64

<b>HW2 (Office Doors)</b>			
<i>Quantity</i>	<i>Hardware Component</i>	<i>Approved Manufacturer</i>	<i>Product Number</i>
3 EA	Hinges	Hager	BB1168 4.5X4.5 NRP 626
1 EA	Lockset	Best	45H7N16H626
1 EA	Wall Stop	Trimco	1270CV
3 EA	Silencers	Ives	SR64

**DIVISION 08 – OPENINGS****SECTION 08 71 00 – DOOR HARDWARE**

<b>HW3 (Push/Pull Doors)</b>			
<i>Quantity</i>	<i>Hardware Component</i>	<i>Approved Manufacturer</i>	<i>Product Number</i>
3 EA	Hinges	Hager	BB1168 4.5X4.5 NRP 626
1 EA	Push Plate	Ives	8200
1 EA	Pull Plate	Ives	8302-8
1 EA	Kick Plate	Ives	8400
1 EA	Wall Stop	Ives	WS449
3 EA	Silencers	Ives	SR64
1 EA	Closer	LCN	4011

<b>HW4 (Single Access Control Doors)</b>			
<i>Quantity</i>	<i>Hardware Component</i>	<i>Approved Manufacturer</i>	<i>Product Number</i>
3 EA	Hinges	Hager	BB1168 4.5X4.5 NRP 626
1 EA	Electric Hinge	ASCI	1100-12 4.5X4.5 626
1 EA	Lock Set	Best	45HW7DEU16H626 IDH-24V
1 EA	Wall Stop	Trimco	1270CV
3 EA	Silencers	Ives	SR64
1 EA	Closer	LCN	4040XP SNB ALUM

<b>HW5 (Double Doors)</b>			
<i>Quantity</i>	<i>Hardware Component</i>	<i>Approved Manufacturer</i>	<i>Product Number</i>
6 EA	Hinges	Hager	BB1168 4.5X4.5 NRP 626
1 EA	Lockset	Best	45H7N16H626
2 EA	Flush Bolts	Ives	FB458
1 EA	DP Strike	Ives	DP2
2 EA	Wall Stop	Trimco	1270CV
1 EA	Closer	LCN	4011



**DIVISION 08 – OPENINGS**

**SECTION 08 71 00 – DOOR HARDWARE**

<b>HW6 (Double Access Control Doors)</b>			
<i>Quantity</i>	<i>Hardware Component</i>	<i>Approved Manufacturer</i>	<i>Product Number</i>
2 EA	Exit Device	Von Duprin	RX-EL9927NL-LBR 3FT US26D
1 EA	Power Supply	Von Duprin	PS914-2RS-BB-BB
2 EA	Electric Hinge	ASCI	1100-12 4.5X4.5 626
4 EA	Hinges	Hager	BB1168 4.5X4.5 NRP 626
2 EA	Closer	LCN	4040XP SNB ALUM
2 EA	Pull Plate	Ives	8302-8

D. All door power supplies shall be tied into the City's fire alarm system.

**END OF SECTION**

## DIVISION 08 – OPENINGS

### SECTION 08 80 00 – GLAZING

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

This Work shall consist of furnishing all labor, material, and equipment for glazing windows, doors, interior relites, including those specified in other Sections where glazing requirements are specified.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American Architectural Manufacturers Associations (AAMA) 800 Test Methods for Sealants
- C. AAMA 810.1, Expanded Cellular Glazing Tape
- D. American National Standards Institute (ANSI) Z97.1 Safety Glazing Material Used in Building - Safety Performance Specifications and Methods of Test
- E. Glass Association of North America (GANA) Glazing Manual
- F. GANA Sealant Manual
- G. GANA Laminated Glazing Reference Manual
- H. GANA Protective Glazing Reference Manual

##### 1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
  - 1. Regularly manufactures specified products.
  - 2. Manufactured specified products with satisfactory service on five similar installations for minimum five years.
- B. Provide contact names and addresses for completed projects when requested by Contract Task Orders project manager or representative.
- C. Installer's Qualifications
  - 1. Regularly installs specified products.
  - 2. Installed specified products with satisfactory service on five similar installations for minimum five years.

##### 1.05 SUBMITTALS

- A. Manufacturers Certificates

## DIVISION 08 – OPENINGS

### SECTION 08 80 00 – GLAZING

---

1. Certificate stating that fire-protection and fire-resistive glazing units meet code requirements for fire-resistance-rated assembly and applicable safety glazing requirements.
  2. Certificate on solar heat gain coefficient when value is specified.
  3. Certificate on "R" value when value is specified.
  4. Certificate test reports confirming compliance with specified bullet resistive rating.
- B. Shop Drawings:
- Shop drawings indicating required glazing data may be incorporated with framing members
1. Show sizes and thicknesses of glass. Show proposed "bites" in frames.
  2. Show sizes and locations of blocks, beads, stops, edge treatments.
  3. Note quality, type, color, and strength of each light.
- C. Manufacturer's Literature and Data:
1. Glass, each kind required.
  2. Insulating glass units.
  3. Transparent (one-way vision glass) mirrors.
  4. Elastic compound for metal sash glazing.
  5. Putty, for wood sash glazing.
  6. Glazing cushion.
  7. Sealing compound.
  8. Bullet resistive material.
  9. Plastic glazing material, each type required
- D. Samples:
1. Submit samples for each type of glass indicated on the project.
  2. Samples shall at a minimum be 12-inches square, and shall be approved by the Contract Task Order project manager or representative prior to procurement.
- E. Preconstruction Adhesion and Compatibility Test Report: Submit glazing sealant manufacturer's test report indicating glazing sealants were tested for adhesion to glass and glazing channel substrates and for compatibility with glass and other glazing materials.

#### 1.06 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Schedule delivery to coincide with glazing schedules so minimum handling of crates is required. Do not open crates except as required for inspection for shipping damage.
- B. Storage: Store cases according to printed instructions on case, in areas least subject to traffic or falling objects. Keep storage area clean and dry.
- C. Handling: Unpack cases following printed instructions on case. Stack individual windows on edge leaned slightly against upright supports with separators between each.
- D. Protect laminated security glazing units against face and edge damage during entire sequence of fabrication, handling, and delivery to installation location. Provide protective covering on exposed faces of glazing plastics, and mark inside as "INTERIOR FACE" or "PROTECTED FACE":
  1. Treat security glazing as fragile merchandise and packaged and shipped in export wood cases with width end in upright position and blocked together in a mass. Storage and handling to comply with manufacturer's directions and as required to

## DIVISION 08 – OPENINGS

### SECTION 08 80 00 – GLAZING

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prevent edge damage or other damage to glazing resulting from effects of moisture, condensation, temperature changes, direct exposure to sun, other environmental conditions, and contact with chemical solvents.

2. Protect sealed-air-space insulating glazing units from exposure to abnormal pressure changes, as could result from substantial changes in altitude during delivery by air freight. Provide temporary breather tubes which do not nullify applicable warranties on hermetic seals.
  3. Temporary protections: The glass front and polycarbonate back of glazing are to be temporarily protected with compatible, peelable, heat-resistant film which will be peeled for inspections and re-applied and finally removed after doors and windows are installed at destination. Since many adhesives will attack polycarbonate, the film used on exposed polycarbonate surfaces is to be approved and applied by manufacturer.
  4. Edge protection: To cushion and protect glass clad, and polycarbonate edges from contamination or foreign matter, the four (4) edges are to be sealed the depth of glazing with continuous standard-thickness thermoplastic rubber tape. Alternatively, continuous channel shaped extrusion of thermoplastic rubber are to be used, with flanges extending into face sides of glazing.
  5. Protect "Constant Temperature" units including every unit where glass sheet is directly laminated to or directly sealed with metal-tube type spacer bar to polycarbonate sheet, from exposures to ambient temperatures outside the range of 60 to 75 degrees F, during the fabricating, handling, shipping, storing, installation, and subsequent protection of glazing.
- E. Do not mark glass with crayons or other marking pencils. Where warnings are required, fasten tapes or banners on head framing.

#### 1.07 WARRANTY

- A. Manufacturer Warranty: Manufacturer shall warranty their glazing from the date of installation and final acceptance by the City as follows. Submit manufacturer warranty.
1. Bullet resistive plastic material to remain visibly clear without discoloration for 10 years.
  2. Insulating glass units to remain sealed for ten (10) years.
  3. Laminated glass units to remain laminated for five (5) years.
  4. Polycarbonate to remain clear and ultraviolet light stabilized for five (5) years.
  5. Insulating plastic to not have more than 6 percent decrease in light transmission and be ultraviolet light stabilized for ten (10) years.

## PART 2 - PRODUCTS

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### 2.01 FABRICATION

- A. Fabricate glazing units in sizes required to glaze openings indicated, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements
- B. Clean-cut or flat-grind vertical edges of butt-glazed monolithic lites in a manner that produces square edges with slight kerfs at junctions with outdoor and indoor faces.
- C. Grind smooth and polish exposed glass edges and corners.

## DIVISION 08 – OPENINGS

### SECTION 08 80 00 – GLAZING

---

#### 2.02 FLAT GLASS MATERIAL

##### A. Clear Float Glass

1. Comply with ASTM C 1036, Type I, transparent flat, Class 1 clear, Quality q3 glazing select.
2. Ultra-Clear (Low-Iron) Float Glass: Class I (clear); with a minimum 91-percent visible light transmission and a minimum solar heat gain coefficient of 0.87.
3. Prequalified products
  - a. Pilkington Building Products North America; Optiwhite  
(<https://www.pilkington.com/en/us/products/product-categories/special-applications/pilkington-optiwhite>)
  - b. Vitro Architectural Glass; Starphire  
(<https://www.vitroglazings.com/products/low-iron-glass/starphire-ultra-clear-glass/>)
  - c. Contract Task Order project manager or representative approved equal.

##### B. Clear Safety Glass

1. Clear; fully tempered with horizontal tempering.
2. Comply with ASTM C 1048, Condition A uncoated, Type I, transparent flat, Class 1, Quality q3 glazing select.
3. Comply with ANSI Z97.1.
4. Permanently etch one corner of each piece of tempered glazing indicating compliance with ANSI Z97.1, locate etch mark so it is visible after installation.

##### C. Low E Clear Insulating Glass Unit

1. Thickness of Outdoor Lite: 1/4-inch (6 mm)
2. Thickness of Indoor Lite: 1/4-inch (6 mm)
3. Overall Unit Thickness: 1-inch (2 mm)
4. Interspace Content: Air
5. Outdoor Lite: Class 1 clear float glass (fully tempered where indicated)
6. Indoor Lite: Class 1 clear float glass (fully tempered where indicated)
7. Low-E coating: Pyrolitic on second surface. Basis of Design product – Vito Architectural Glass “Solarban 60” (<https://www.vitroglazings.com/products/low-e-glass/solarban-60-glass/>)
8. Visible Light Transmittance: 70%
9. Winter Nighttime U-Factor: Must meet most current Washington State Energy Code for Commercial Buildings
10. Solar Heat Gain Coefficient: Must meet most current Washington State Energy Code for Commercial Buildings

##### D. Laminate Glass

ASTM C1172, and complying with other requirements specified and with the following:

## **DIVISION 08 – OPENINGS**

### **SECTION 08 80 00 – GLAZING**

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1. Interlayer: Polyvinyl butyral or cured resin of thickness indicated with a proven record of no tendency to bubble, discolor, or lose physical or mechanical properties after laminating glass lites and installation.
  - a. For polyvinyl butyral interlayers, laminate lites in autoclave with heat plus pressure.
  - b. For cured-resin interlayers, laminate glass to laminated –glass manufacturer’s standard cast-in-place and cured –transparent-resin interlayer.
2. Laminating Process: Fabricate laminated glass free of foreign substances and air or glass pockets.

#### **2.03 SEALED INSULATING GLASS UNITS**

Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace.

- A. Comply with ASTM E 774 and E 773, Class CBA.
- B. Purge interpane space with air.
- C. Ten (10) year non-prorated warranty.
- D. Total unit thickness as required by frame assembly.
- E. Overall Unit Thickness and Thickness of Each Lite: Dimensions indicated for insulating glass units are nominal.
- F. Sealing system: Dual seal, with primary and secondary sealants.
- G. Spacer specifications: Aluminum with mill or clear anodic finish.

#### **2.04 GLAZING COMPOUNDS**

- A. Butyl Sealant: Single component; Shore A hardness of 10 to 20; black color; non-skinning.
- B. Silicone Sealant: Single component; chemical curing; capable of water immersion without loss of properties; non-bleeding, non-staining; cured Shore A hardness of 15 to 25; color as selected.

#### **2.05 GLAZING ACCESSORIES**

- A. Setting Blocks: Neoprene, 80 to 90 Shore A durometer hardness, ASTM C 864 Option I.
  1. Length of 0.1-inch for each square foot of glazing or minimum 4-inch x width of glazing rabbet space minus 1/16-inch x height to suit glazing method and pane weight and area.
- B. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness, ASTM C 864 Option I.
  1. Minimum 3-inch long x one half the height of the glazing stop x thickness to suit application, self adhesive on one face.
- C. Glazing Tape: Closed cell polyvinyl chloride foam, coiled on release paper over adhesive on two sides, maximum water absorption by volume of 2-percent, designed for compression of 25-percent to effect an air barrier and vapor retarder seal.

## DIVISION 08 – OPENINGS

### SECTION 08 80 00 – GLAZING

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#### PART 3 - EXECUTION

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##### 3.01 COORDINATION

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

##### 3.02 EXAMINATION

###### A. Verification of Conditions:

1. Examine openings for glass and glazing units; determine they are proper size; plumb; square; and level before installation is started.
2. Verify that glazing openings conform with details, dimensions and tolerances indicated on manufacturer is approved shop drawings.

B. Review for conditions which may adversely affect glass and glazing unit installation, prior to commencement of installation. Do not proceed with installation until unsatisfactory conditions have been corrected.

C. Verify that wash down of adjacent masonry is completed prior to erection of glass and glazing units.

##### 3.03 PREPARATION

A. For sealant glazing, prepare glazing surfaces in accordance with GANA Sealant Manual.

B. Determine glazing unit size and edge clearances by measuring the actual unit to receive the glazing.

C. Shop fabricate and cut glass with smooth, straight edges of full size required by openings to provide GANA recommended edge clearances.

D. Verify that components used are compatible.

E. Clean and dry glazing surfaces.

F. Prime surfaces scheduled to receive sealants, as determined by preconstruction sealant-substrate testing.

##### 3.04 INSTALLATION - GENERAL

A. Install in accordance with GANA Glazing Manual, GANA Sealant Manual, IGMA TB-3001, and IGMA TM-3000 unless specified otherwise.

B. Glaze in accordance with recommendations of glazing and framing manufacturers, and as required to meet the Performance Test Requirements specified in other applicable sections of these specifications.

C. Set glazing without bending, twisting, or forcing of units.

D. Do not allow glass to rest on or contact any framing member.

E. Glaze doors and operable sash, in a securely fixed or closed and locked position, until sealant, glazing compound, or putty has thoroughly set.

###### F. Patterned Glass:

1. Install units with one patterned surface with smooth surface on the weather side.

## DIVISION 08 – OPENINGS

### SECTION 08 80 00 – GLAZING

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2. Install units in interior partitions with pattern in same direction in all openings.
- G. Tempered Glass: Install with roller distortions in horizontal position unless otherwise directed.
- H. Laminated Glass:
  1. Tape edges to seal interlayer and protect from glazing sealants.
  2. Do not use putty or glazing compounds.
- I. Insulating Glass Units:
  1. Glaze in compliance with glass manufacturer's written instructions.
  2. When glazing gaskets are used, they are to be of sufficient size and depth to cover glass seal or metal channel frame completely.
  3. Do not use putty or glazing compounds.
  4. Do not grind, nip, cut, or otherwise alter edges and corners of fused glass units after shipping from factory.
  5. Install with tape or gunnable sealant in wood sash.
- J. L. Fire Protective and Fire Resistance Glass:
  1. Wire Glass: Glaze in accordance with NFPA 80.
  2. Other fire protective and fire resistant glass: Glaze in accordance with manufacturer's installation instructions and NFPA 80.

#### **3.05 INSTALLATION AT EXTERIOR STEEL DOORS AND FRAMES – EXTERIOR WET/DRY METHOD (PRE-FORMED TAPE AND SEALANT)**

- A. Cut glazing tape to length and set against permanent stops, 3/16 inch below sight line.
- B. Apply heel bead of butyl sealant along intersection of permanent stop with frame ensuring full perimeter seal between glass and frame to complete the continuity of the air and vapor seal.
- C. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.
- D. Rest glazing on setting blocks and push against tape and heel bead of sealant with sufficient pressure to obtain full contact at perimeter of pane or glass unit.
- E. Place glazing tape on glazing pane or unit with tape 1/4-inch below sight line.
- F. Apply cap bead of silicone type sealant along void between the stop and the glazing, to uniform line, flush with sight line.
  1. Tool or wipe sealant surface smooth.

#### **3.06 INSTALLATION AT INTERIOR STEEL DOORS AND FRAMES – INTERIOR WET/DRY METHOD (TAPE AND SEALANT)**

- A. Cut glazing tape to length and set against permanent stops, projecting 1/16 inch above sight line.
- B. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.
- C. Rest glazing on setting blocks and push against tape for full contact at perimeter of pane or unit.
- D. Place glazing tape on free perimeter of glazing in same manner described above.



## **DIVISION 08 – OPENINGS**

### **SECTION 08 80 00 – GLAZING**

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- E. Install removable stop without displacement of tape.
  - 1. Exert pressure on tape for full continuous contact.
- F. Knife trim protruding tape.

#### **3.07 CLEANING**

- A. Remove glazing materials from finish surfaces.
- B. Remove labels after Work is complete.
- C. Clean glass and adjacent surfaces.

#### **3.08 PROTECTION**

After installation protect from construction operations.

<b>END OF SECTION</b>
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## **DIVISION 09 – FINISHES**

### **SECTION 09 06 00 – SCHEDULE FOR FINISHES**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### **1.02 DESCRIPTION OF WORK**

This section contains a coordinated system in which requirements for materials specified in other sections shown are identified by abbreviated material names and finish codes in the finish schedule or shown for other locations.

##### **1.03 MANUFACTURERS**

Manufacturer's trade names and numbers used herein are only to identify colors, finishes, textures and patterns. Products of other manufacturer's equivalent to colors, finishes, textures and patterns of manufacturers listed that meet requirements of technical specifications will be acceptable upon approval in writing by the Contract Task Order project manager or representative for finish requirements.

##### **1.01 SUBMITTALS**

- A. All submittals shall conform to the general Facilities color schedule, as noted on drawings and/or adjacent area/floor of the Tacoma Public Utilities Administration building.
- B. Submit all samples of color and approval of materials as required by each section of these specifications.
- C. Any deviations or differences in appearance or finish for any and all materials must be approved by the Contract Task Order project manager or representative in writing. Submit substitution request as required by these specifications.

#### **PART 2 - PRODUCTS**

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##### **2.01 MANUFACTURERS AND PRODUCTS**

- A. As specified in each section or as scheduled on color schedule. Manufacturer's name listed in parentheses ( ) in the Color Schedule denotes reference for color matching of specified or approved product – regardless of that products manufacturer, to Architect's color sample

## DIVISION 09 – FINISHES

### SECTION 09 06 00 – SCHEDULE FOR FINISHES

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#### 2.02 COLOR SCHEDULE

<b>Section 09 62 19 – Laminate Flooring</b>			
<b>LAMINATE</b>	<b>MANUFACTURER</b>	<b>COLOR NAME</b>	<b>COLOR NUMBER</b>
PLAM-1	Wilsonart	Zanzibar	7935
PLAM-2	Wilsonart	Kalahari Topaz	4588K-07
PLAM-3	Wilsonart	Canyon Zephyr	4842-60
PLAM-4	Wilsonart	Evening Tigris	4674-60
<b>Solid Surface</b>	<b>MANUFACTURER</b>	<b>COLOR NAME</b>	<b>COLOR NUMBER</b>
SS-1	Wilsonart	Designer White	D354SL

<b>Section 09 68 00 - Carpeting</b>					
<b>CARPET</b>	<b>MANUFACTURER</b>	<b>COLLECTION</b>	<b>DESIGN NAME</b>	<b>COLOR NAME</b>	<b>COLOR NUMBER</b>
CPT-1	Milliken	Nordic Stories	Tectonic	Lahar	TTC67-59
CPT-2	Milliken	Nordic Stories	Tectonic	Norse	TTC94-59
CPT-3	Milliken	Nordic Stories	Tectonic	Spiritland	TTC122-120

<b>Section 09 77 00 – Special Wall Surfacing</b>					
<b>WALL BASE</b>	<b>MANUFACTURER</b>	<b>TYPE</b>	<b>COLOR NUMBER</b>		
VB-1	Roppe	TV	100 Black		
RB-1	Roppe	Pinnacle Type-TS	700 Series	Black Brown	193

**DIVISION 09 – FINISHES**

**SECTION 09 06 00 – SCHEDULE FOR FINISHES**

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<b>Section 09 91 00 – Painting</b>					
<b>PAINT</b>	<b>MANUFACTURER</b>	<b>COLLECTION</b>	<b>COLOR NUMBER</b>		
Slate	Rodda	Cascadia Color Collection	CA090		
Full Moon	Rodda	Cascadia Color Collection	CA043		
Casa De Oro	Rodda	Cascadia Provisions	1026		
Garibaldi	Rodda	Cascadia Color Collection	CA197		
Deep Water	Rodda	Cascadia Color Collection	CA203		
Shale	Rodda	Cascadia Color Collection	CA192		
I'm A Local	Rodda	Cascadia Provisions	0863		
Wheatgrass	Rodda	Cascadia Color Collection	CA174		
Hemlock	Rodda	Cascadia Color Collection	CA180		
Canopy	Rodda	Cascadia Color Collection	CA212		
Purple Stiletto	Rodda	Cascadia Provisions	1173		
Juniper Berry	Rodda	Cascadia Color Collection	CA208		
Obsidian	Rodda	Cascadia Color Collection	CA204		
Stone	Rodda	Cascadia Color Collection	CA080		
White Satin	Rodda		TS13C6260		
White Low Gloss	Rodda		TS06G7343		

**PART 3 - EXECUTION**

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**NOT USED**

<b>END OF SECTION</b>
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## DIVISION 09 – FINISHES

### SECTION 09 23 00 – GYPSUM PLASTER

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent of gypsum plastering is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for repairs, and installation of gypsum plaster, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. Northwest Wall and Ceiling Bureau, Specifications and Recommendations United States Gypsum (USG), Gypsum Construction Handbook, 4th Edition

##### 1.04 QUALITY ASSURANCE

- A. Applicator minimum qualifications:
  - 1. Able to show five (5) years documented experience in performing work this section.
  - 2. Recommended as an installer by Northwest Wall and Ceiling Bureau prior to bid or approved by project manager or representative.

##### 1.05 SUBMITTALS

- A. Shop Drawings:
  - 1. Details of floating interior angle unrestrained construction.
  - 2. Details of assembly and anchorage of lath and accessories.
- B. D. Manufacturers' Literature and Data:
  - 1. Accessories for plaster, each type.
  - 2. Metal plaster bases, each type.
  - 3. Fasteners.
  - 4. Bonding compounds, including application instructions.
  - 5. Admixtures, including mixing and application instructions.
- C. Manufacturers certificates:
  - 1. Gypsum plaster.
- D. Samples: Accessories for plaster, each type, not less than 6 inches long.
- E. Plaster sample where color is specified or special finish is required, and where required to match existing special finish conditions, 6 by 12 inches minimum.
- F. Panel showing finish coat, 6 by 12 inches minimum.
- G. Installer qualifications.

## DIVISION 09 – FINISHES

### SECTION 09 23 00 – GYPSUM PLASTER

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#### 1.06 PROJECT CONDITIONS

- A. Comply with ASTM C842 requirements.
- B. Maintain work areas at not less than 55 degrees F or greater than 80 degrees F for not less than one (1) week prior to application of plaster, continuously during application of plaster, and one (1) week after plaster has set or until plaster has dried.

#### 1.07 PERFORMANCE REQUIREMENTS

- A. Where indicated on the Contract Documents, provide gypsum plaster assemblies identical to those of assemblies tested for fire resistance according to ASTM E119 by a qualified testing agency.
- B. Where indicated on the Contract Documents provide gypsum plaster assemblies identical to those of assemblies tested for STC ratings according to ASTM E90 and classified according to ASTM E413 by a qualified testing agency.

#### 1.08 DELIVERY, STORAGE AND HANDLING

- A. Deliver manufactured materials in the manufacturers' original unbroken packages or containers which are labeled plainly with the manufacturers' names and brands.
- B. Keep cementitious materials dry and stored off the ground, under cover, and away from sweating walls and other damp surfaces until ready for use..

#### 1.09 WARRANTY

- A. The Contractor shall warranty, for a period of 180 calendar days, all work, materials, and labor provided as part of this Contract Task Order. The warranty period shall commence upon acceptance of the Work by the City.

### PART 2 - PRODUCTS

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#### 2.01 PREAPPROVED MANUFACTURERS

- A. United States Gypsum Company (WSG), (800) 507-8899,  
(<https://www.usg.com/content/usgcom/en.html>)

#### 2.02 PLASTERING BASES (LATH)

- A. Expanded-Metal Lath: ASTM C847, cold-rolled carbon-steel sheet with ASTM A653/A653M, G60 (Z180), hot-dip galvanized-zinc coating.
  - 1. Paper Backing: Kraft paper factory bonded to back of lath.
  - 2. Diamond-Mesh Lath:
    - a. Type: Flat
    - b. Weight: 2.5 pound/square yard
  - 3. Flat-Rib Lath: Rib depth of not more than 1/8 inch, 2.75 pound/square yard.
  - 4. 3/8-inch Rib Lath: 3.4 pound/square yard.
- B. B. Gypsum Lath:
  - 1. Sheet; 2 feet. x 8 feet.
  - 2. 3/8 inch thick.
  - 3. Type "X" for fire rated assemblies.

## **DIVISION 09 – FINISHES**

### **SECTION 09 23 00 – GYPSUM PLASTER**

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#### **2.03 GYPSUM PLASTERS**

- A. Base Coat: High strength gypsum plaster with a minimum average, dry compressive strength of 2,800 psi according to ASTM C472 for a mix of 100 pounds of plaster and 2 cubic feet of sand.
- B. Finish Coat: High strength gypsum gauging plaster with a minimum average dry compressive strength of 5,000 psi according to ASTM C472.

#### **2.04 LIME**

Lime putty: ASTM C 206, Type S, double hydrated.

#### **2.05 AGGREGATES**

Aggregate: ASTM C 35, graded fine plaster sand aggregate.

#### **2.06 BONDING COMPOUND (INTERIOR WORK ONLY)**

ASTM C631, except water re-emulsifiable compound is prohibited.

#### **2.07 ACCESSORIES FOR GYPSUM PLASTER**

- A. General: Coordinate depth of trim and accessories with thicknesses and number of plaster coats required as per ASTM C841.
- B. Cornerite: Fabricated from expanded-metal lath with ASTM A653/A653M, G60 (Z180), hot-dip galvanized-zinc coating.
- C. Striplath: Fabricated from expanded-metal lath with ASTM A653/A653M, G60 (Z180), hot-dip galvanized-zinc coating.
- D. Cornerbeads: Fabricated from zinc-coated (galvanized) steel.
  - 1. Smallnose cornerbead with expanded flanges; use unless otherwise indicated on Contract Documents.
  - 2. Smallnose cornerbead with perforated flanges; use on curved corners.
  - 3. Smallnose cornerbead with expanded flanges reinforced by perforated stiffening rib; use on columns and for finishing unit masonry corners.
  - 4. Bullnose cornerbead, radius 3/4 inch minimum, with expanded flanges; use at locations indicated on construction documents.
- E. Casing Beads: Fabricated from zinc-coated (galvanized) steel; square-edged style; with expanded flanges.
- F. Control Joints: Fabricated from zinc-coated (galvanized) steel; one-piece type, folded pair of unperforated screeds in M-shaped configuration; with perforated flanges and removable protective tape on plaster face of control joint.

#### **2.08 FASTENERS**

- A. Tie wire, screws, staples, clips, nails, and other fasteners ASTM C841, except as otherwise specified.
- B. Provide fasteners for securing metal plastering bases having heads, or inserted through washers large enough to engage two strands (1 on each side of the washer) of the metal plastering base.
- C. For fire rated construction type and size as used in fire rated test.
- D. Screws: ASTM C1002.

## DIVISION 09 – FINISHES

### SECTION 09 23 00 – GYPSUM PLASTER

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E. Expansion Shields: CID A-A-55615.

#### PART 3 - EXECUTION

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##### 3.01 COORDINATION

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

##### 3.02 APPLYING LATH BASES

- A. Apply lath base in accordance with ASTM C841, except as otherwise specified or shown.
- B. Provide metal plastering bases where plaster is required on partitions, ceilings and furring.
  - 1. Where plaster is required on solid bases, metal plastering bases are not required, unless shown on the Contract Documents.
  - 2. Form true surfaces, straight or in moderate curves where shown on Contract Documents, without sags or buckles and with long dimension of lath at right angles to direction of supports.
  - 3. Shape lathing to within 3/4 inch of finished profiles of irregular surfaces.
  - 4. Terminate lath for ceiling construction at casing bead (Floating Angle Construction) where butting into or penetrated by walls, columns, beams, and similar elements.
- C. Gypsum lath may be used in lieu of expanded metal lath for gypsum plaster only on straight flat surfaces of partitions and walls, and on furring, except for lathing in wet areas and as a base for marble finishes.
- D. Installing Metal Plastering Bases:
  - 1. Select type of expanded metal lath to conform to Table 2 of ASTM C841.
  - 2. Select type of fasteners based upon expanded metal lath type to be installed to conform to Table 1 of ASTM C841.
  - 3. Where metal plastering bases are required over solid backing, provide self-furring, diamond-mesh lath type.
  - 4. Attach self-furring diamond-mesh lath directly to masonry and concrete with hardened nails, power actuated drive pins. Locate fasteners at the dimples or crimps only.
  - 5. Where metal plastering bases are required over steel columns and studless solid plaster partitions supports by L-runners, provide rib lath.
  - 6. Provide rib lath above ceramic tile wainscots where the finish above the wainscot is required to finish flush with the tile face.
  - 7. Do not install continuous plastering bases through expansion and control joints. Terminate plastering base at each side of joint.

##### 3.03 SURFACE PREPARATION OF SOLID BASES

- A. Prepare in accordance with ASTM C842, except as otherwise specified.
- B. Terminate concrete form ties and other metal projections not less than 1/8 inch below the surface of concrete.



## **DIVISION 09 – FINISHES**

### **SECTION 09 23 00 – GYPSUM PLASTER**

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- C. Remove projections and fill depressions, holes, cracks and similar voids flush with patching compound compatible with the substrate and plaster, within the tolerance, specified in ASTM C842.
- D. Clean existing concrete surfaces specified to receive plaster to ensure bonding as specified in ASTM C842.
- E. Condition new or existing concrete surfaces specified to receive plaster by applying bonding compound as specified in ASTM C842.
- F. Condition existing or new, concrete or masonry surfaces (solid backing) specified to receive plaster by applying metal plastering base as specified in ASTM C842.

#### **3.04 INSTALLING PLASTERING ACCESSORIES**

- A. Install accessories in accordance with ASTM C841, except as follows:
  - 1. Set plastering accessories plumb, level and true to line, mitered at corners and intersections, and securely attach to supporting surfaces.
  - 2. Install in one piece, within the limits of the longest commercially available lengths.
  - 3. Wood plugs are not acceptable anchorage for fasteners.
- B. Corner Beads: Install at external plaster corners.
- C. Strip Lath:
  - 1. Install centered over joints between dissimilar materials, such as clay tile, brick, concrete masonry units, concrete, and expanded metal and gypsum lath. Install where surfaces are required to be plastered and are in contact with each other in same plane, except where expansion joints and casing beads are required.
  - 2. Wire tie, staple, screw, or nail strip lath to base along both edges at not over 6 inches on center.
  - 3. Reinforce gypsum lath at corners of openings, at internal corners, and at chases and similar breaks in continuity in accordance with ASTM C841.
- D. Casing Beads:
  - 1. Provide at locations where plaster terminates against other materials.
  - 2. Provide where indicated in construction documents.
  - 3. Provide where plaster terminates against trim of steel frames and trim of other materials and equipment, except where trim overlaps plaster.
  - 4. Provide where plaster for new walls or furring (vertical or horizontal) terminates against existing construction.
  - 5. Provide around perimeter of openings for recessed casework and equipment, except where edge is covered by flanges. Locate to conform to dimensions shown on approved shop drawings.
  - 6. Both sides of expansion and control joints, unless shown otherwise.
  - 7. Where ceilings butt into or are penetrated by walls, columns, beams, and similar elements so as to provide floating angle (unrestrained) construction in accordance with ASTM C841.
- E. Cornerites:

## DIVISION 09 – FINISHES

### SECTION 09 23 00 – GYPSUM PLASTER

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1. Provide at interior corners of walls, partitions, and other vertical surfaces to be plastered, except where lath is carried around angle.
  2. Fasten only as necessary to retain position during plastering.
  3. Omit cornerites at junction of new plastered walls with existing plastered walls.
  4. Provide where metal plastering bases are specified not to be carried around internal angles, and at locations where casing beads are specified and shown.
- F. Control Joints:
1. Where control joints are placed parallel to framing members, install joints within 4 inches of framing member.
  2. Install control joints only to the edges of abutting sheets of lath so that the lath is not continuous or tied across joint.
  3. Extend control joints the full width and height of the wall or length of soffit/ceiling plaster membrane.

#### 3.05 GYPSUM PLASTER APPLICATION

- A. Proportion, mix, and apply plaster in accordance with ASTM C842.
- B. Thickness of Plaster: ASTM C842, except as follows:
1. Where greater thickness is indicated on Contract Documents.
  2. Where thickness is required to match existing.
  3. On metal plaster base 3/4 inch, except where greater thickness is required for fire rated construction.
  4. Apply finish coats to a uniform thickness of approximately 1/16 inch with not more than 1/8 inch thickness at any point.
- C. Cut 1/16 inch deep V-joint in finish coat of plaster adjacent to metal door frames and wherever plaster finishes flush with other materials, except where casing beads are required. Omit 1/16 inch deep V-joint on walls and partitions where plaster is recessed back from face of door frames, or similar conditions.
- D. Plaster to have a smooth-trowel finish unless specified or shown otherwise.
- E. Apply gypsum plaster in three (3) coats except as follows: Gypsum plaster applied to masonry or gypsum lath using the two-coat double back method.
- F. Gypsum Plaster Base Coat: Apply base coats with sufficient pressure and ensure plaster is sufficiently plastic to provide a strong bond to bases. Work base coats into screeds at intervals from 5 to 8 feet. Plaster must not be continuous across expansion and control joints occurring in walls, partitions, and ceilings. Finish work level, plumb, square, and true, within a tolerance of 1/8 inch in 8 feet without waves, cracks, blisters, pits, crazing, discoloration, projections, or other imperfections. Form plaster work carefully around angles and contours, and well up to screeds. Take special care to prevent sagging and consequent dropping of applications. There must be no visible junction marks in finish coat where one day's work adjoins another.
1. Gypsum Two-Coat Base Coat: Apply the first coat to cover the base with sufficient material and pressure to form a good bond on the wall or ceiling base. Before the first coat has set and without scratching or cracking the surface, apply a second coat (double back) of the same material proportion as the base coat to the screeds. Straighten to a true surface without application of water, and cross rake or scratch to receive the finish coat.

## DIVISION 09 – FINISHES

### SECTION 09 23 00 – GYPSUM PLASTER

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2. Gypsum Three-Coat Base Coat: Apply scratch coat 3/16 to 1/4 inch thick to cover the base with sufficient material and pressure to form a good bond on the wall or ceiling base. Rake or scratch the surface and allow to set firm and hard. Apply the brown coat to bring the base coat out to the screeds, compact, and straighten to a true surface without the application of water, and cross rake or scratch to receive the finish coat.
- G. Gypsum Plaster Finish Coats: Moderately moisten or fog spray base coat of plaster that has become dry before finish coat is applied. Accelerate plaster, if necessary, to provide a setting time of not more than four (4) hours from the time the plaster is mixed.
1. Lime-Putty and Gypsum Gauged Finish Coat: Apply lime-putty gypsum finish white coat over the base coat, scratch in thoroughly, lay on well, double back, and fill out to a true, even surface. Allow the finish to dry not more than five (5) minutes, then trowel well with water. Apply maximum pressure in order to compact the finish coat and provide a smooth finish free from blemishes and irregularities. Apply trowel finish coats of gypsum-gauged lime-putty over properly prepared base coats as thin as possible and 1/16 to 1/8 inch thick for conventional plaster system, except as necessary in spots to level out hollows in base coat.
- H. Concealed Plaster:
1. Where plaster is concealed behind built in cabinets, furnishings, or equipment, apply finish coat.
  2. Where plaster is concealed above ceilings, omit finish coat.
  3. Where plaster is used as a base for adhesive application of tile and similar finishes, omit finish coat.

#### 3.06 PATCHING

- A. After all work except painting is finished, point around trim, frames, and similar items.
- B. Patch damaged plaster to match previously applied plaster in color and texture.
- C. Sanding plaster is prohibited.
- D. Patch, alter and replace existing plaster surfaces as required to complete work.
- E. Patching of Rated Construction: Patch holes or openings 1/2 inch or less in diameter, or equivalent size, with patching plaster. Repair holes or openings over 1/2-inch diameter, or equivalent size, with same materials used in construction so as to provide fire protection equivalent to the fire rated construction, STC equivalent to the sound rated construction, and construction that will not permit the passage of smoke.

#### 3.07 CLEANING

- A. Remove temporary protection and enclosure of other work after plastering is complete. Remove droppings or spattering's from other surfaces not indicated to be plastered. Leave clean and in a condition to receive paint or other finish.

#### 3.08 PROTECTION

- A. After installation protect from construction operations.
- B. Protect finished work until acceptance by the City.

<b>END OF SECTION</b>
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## DIVISION 09 – FINISHES

### SECTION 09 29 00 – GYPSUM BOARD

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of where to install gypsum boards is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of gypsum boards, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. Northwest Wall and Ceiling Bureau, Specifications and Recommendations United States Gypsum (USG), Gypsum Construction Handbook, 4th Edition
- C. Underwriters Laboratories Inc. (UL): Fire Resistance Directory
- D. Inchcape Testing Services (ITS): Certification Listings

##### 1.04 TERMINOLOGY

- A. Definitions and description of terms shall be in accordance with ASTM C11, C840, and as specified.
- B. Underside of Structure Overhead: In spaces where steel trusses or bar joists are shown, the underside of structure overhead shall be the underside of the floor or roof construction supported by the trusses or bar joists.
- C. "Yoked": Gypsum board cut out for opening with no joint at the opening (along door jamb or above the door).

##### 1.05 SUBMITTALS

- A. Manufacturer's Literature and Data:
  - 1. Cornerbead and edge trim.
  - 2. Finishing materials.
  - 3. Laminating adhesive.
  - 4. Gypsum board, each type.
- B. Shop Drawings:
  - 1. Typical gypsum board installation, showing corner details, edge trim details and the like.
  - 2. Typical sound rated assembly, showing treatment at perimeter of partitions and penetrations at gypsum board.
  - 3. Typical shaft wall assembly.
  - 4. Typical fire rated assembly and column fireproofing, indicating details of construction same as that used in fire rating test.

## DIVISION 09 – FINISHES

### SECTION 09 29 00 – GYPSUM BOARD

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- C. Samples:
  - 1. Cornerbead.
  - 2. Edge trim.
  - 3. Control joints.
- D. Test Results:
  - 1. Fire rating test, each fire rating required for each assembly.
  - 2. Sound rating test.
- E. Certificates: Certify that gypsum board types, gypsum backing board types, cementitious backer units, and joint treating materials do not contain asbestos material.

#### 1.06 ENVIRONMENTAL CONDITIONS

- A. In accordance with ASTM C 840.

#### 1.07 DELIVERY, STORAGE AND HANDLING

- In accordance with ASTM C 840.

### PART 2 - PRODUCTS

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#### 2.01 GYPSUM BOARD

- A. Gypsum Board: ASTM C1396, Type X, 5/8 inch thick unless shown otherwise.
- B. Coreboard or Shaft Wall Liner Panels.
  - 1. ASTM C1396, Type X.
  - 2. ASTM C1658: Glass Mat Gypsum Panels,
  - 3. Coreboard for shaft walls 300, 400, 600 mm (12, 16, or 24 inches) wide by required lengths 25 mm (one inch) thick with paper faces treated to resist moisture.
- C. Water Resistant Gypsum Backing Board: ASTM C1178, Type X, 5/8 inch thick.
- D. Paper facings shall contain 100 percent post-consumer recycled paper content.

#### 2.02 GYPSUM SHEATHING BOARD

- A. ASTM C1396, Type X, water-resistant core, 5/8 inch thick.
- B. ASTM C1177, Type X.

#### 2.03 ACCESSORIES

- A. ASTM C1047, except form of 0.015-inch-thick zinc coated steel sheet or rigid PVC plastic.
- B. Flanges not less than 7/8 inch wide with punchouts or deformations as required to provide compound bond.

#### 2.04 FASTENERS

- A. ASTM C1002 and ASTM C840, except as otherwise specified.
- B. ASTM C954, for steel studs thicker than 0.33 inch.
- C. Select screws of size and type recommended by the manufacturer of the material being fastened.
- D. For fire rated construction, type and size same as used in fire rating test.
- E. Clips: Zinc-coated (galvanized) steel; gypsum board manufacturer's standard items.

## **DIVISION 09 – FINISHES**

### **SECTION 09 29 00 – GYPSUM BOARD**

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#### **2.05 FINISHING MATERIALS AND LAMINATING ADHESIVE**

- A. Joint Materials: ASTM C475 and ASTM C840; reinforcing tape, joint compound, adhesive, and water. Free of antifreeze, vinyl adhesives, preservatives, biocides and other VOC

#### **PART 3 - EXECUTION**

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##### **3.01 COORDINATION**

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

##### **3.02 GYPSUM BOARD HEIGHTS**

- A. Extend all layers of gypsum board from floor to underside of structure overhead on following partitions and furring:
  - 1. Two sides of partitions:
    - a. Fire rated partitions.
    - b. Smoke partitions.
    - c. Sound rated partitions.
    - d. Full height partitions shown (FHP).
    - e. Corridor partitions
  - 2. One side of partitions or furring:
    - a. Inside of exterior wall furring or stud construction.
    - b. Room side of room without suspended ceilings.
    - c. Furring for pipes and duct shafts, except where fire rated shaft wall construction is shown.
  - 3. Extend all layers of gypsum board construction used for fireproofing of columns from floor to underside of structure overhead, unless shown otherwise.
- B. In locations other than those specified, extend gypsum board from floor to heights as follows:
  - 1. Not less than 4 inches above suspended acoustical ceilings.
  - 2. At ceiling of suspended gypsum board ceilings.
  - 3. At existing ceilings.

##### **3.03 INSTALLING GYPSUM BOARD**

- A. Coordinate installation of gypsum board with other trades and related work.
- B. Install gypsum board in accordance with ASTM C840, except as otherwise specified.
- C. Moisture and Mold-Resistant Assemblies: Provide and install moisture and mold-resistant glass mat gypsum wallboard products with moisture-resistant surfaces complying with ASTM C 1658 where shown and in locations which might be subject to moisture exposure during construction.
- D. Use gypsum boards in maximum practical lengths to minimize number of end joints.
- E. Bring gypsum board into contact, but do not force into place.
- F. Ceilings:
  - 1. For single-ply construction, use perpendicular application.

## DIVISION 09 – FINISHES

### SECTION 09 29 00 – GYPSUM BOARD

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2. For two-ply assemblies:
  - a. Use perpendicular application.
  - b. Apply face ply of gypsum board so that joints of face ply do not occur at joints of base ply with joints over framing members.
- G. Walls (Except Shaft Walls):
  1. When gypsum board is installed parallel to framing members, space fasteners 12 inches on center in field of the board, and 8 inches on center along edges.
  2. When gypsum board is installed perpendicular to framing members, space fasteners 12 inches on center in field and along edges.
  3. Stagger screws on abutting edges or ends.
  4. For single-ply construction, apply gypsum board with long dimension either parallel or perpendicular to framing members as required to minimize number of joints except gypsum board shall be applied vertically over "Z" furring channels.
  5. For two-ply gypsum board assemblies, apply base ply of gypsum board to assure minimum number of joints in face layer. Apply face ply of wallboard to base ply so that joints of face ply do not occur at joints of base ply with joints over framing members.
  6. For three-ply gypsum board assemblies, apply plies in same manner as for two-ply assemblies, except that heads of fasteners need only be driven flush with surface for first and second plies. Apply third ply of wallboard in same manner as second ply of two-ply assembly, except use fasteners of sufficient length enough to have the same penetration into framing members as required for two-ply assemblies.
  7. No offset in exposed face of walls and partitions will be permitted because of single-ply and two-ply or three-ply application requirements.
  8. Installing Two Layer Assembly Over Sound Deadening Board:
    - a. Apply face layer of wallboard vertically with joints staggered from joints in sound deadening board over framing members.
    - b. Fasten face layer with screw, of sufficient length to secure to framing, spaced 12 inches on center around perimeter, and 16 inches on center in the field.
  9. Control Joints ASTM C840 and as follows:
    - a. Locate at both side jambs of openings if gypsum board is not "yoked". Use one system throughout.
    - b. Not required for wall lengths less than 9000 mm (30 feet).
    - c. Extend control joints the full height of the wall or length of soffit/ceiling membrane.
- H. Acoustical or Sound Rated Partitions, Fire and Smoke Partitions:
  1. Cut gypsum board for a space approximately 1/8 to 1/4 inch wide around partition perimeter.
  2. Coordinate for application of caulking or sealants to space prior to taping and finishing.
  3. For sound rated partitions, use sealing compound (ASTM C919) to fill the annular spaces between all receptacle boxes and the partition finish material through which

## DIVISION 09 – FINISHES

### SECTION 09 29 00 – GYPSUM BOARD

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the boxes protrude to seal all holes and/or openings on the back and sides of the boxes. STC minimum values as shown.

- I. Electrical and Telecommunications Boxes:
  - 1. Seal annular spaces between electrical and telecommunications receptacle boxes and gypsum board partitions.
- J. Accessories:
  - 1. Set accessories plumb, level and true to line, neatly mitered at corners and intersections, and securely attach to supporting surfaces as specified.
  - 2. Install in one piece, without the limits of the longest commercially available lengths.
  - 3. Corner Beads: a. Install at all vertical and horizontal external corners and where shown. b. Use screws only. Do not use crimping tool.
  - 4. Edge Trim (casings Beads):
    - a. At both sides of expansion and control joints unless shown otherwise.
    - b. Where gypsum board terminates against dissimilar materials and at perimeter of openings, except where covered by flanges, casings or permanently built-in equipment.
    - c. Where gypsum board surfaces of non-load bearing assemblies abut load bearing members.
    - d. Where shown.

#### 3.04 INSTALLING GYPSUM SHEATHING

- A. Install in accordance with ASTM C840, except as otherwise specified or shown.
- B. Use screws of sufficient length to secure sheathing to framing.
- C. Space screws 3/8 inch from ends and edges of sheathing and 8 inches on center. Space screws a maximum of 8 inches on center on intermediate framing members.
- D. Apply 2 foot by 8-foot sheathing boards horizontally with tongue edge up.
- E. Apply 4 foot by 8 foot or 9-foot gypsum sheathing boards vertically with edges over framing.

#### 3.05 CAVITY SHAFT WALL

- A. Coordinate assembly with structural framing, for erection of framing and gypsum board.
- B. Conform to UL Design No. U438 or FM WALL CONSTRUCTION 12-2/HR (Nonbearing for two-hour fire rating). //
- C. Cut coreboard (liner) panels one inch less than floor-to-ceiling height, and erect vertically between J-runners on shaft side.
  - 1. Where shaft walls exceed 14 feet in height, position panel end joints within upper and lower third points of wall.
  - 2. Stagger joints top and bottom in adjacent panels.
- D. D. Gypsum Board:
  - 1. Two hour wall:
    - a. Erect base layer (backing board) vertically on finish side of wall with end joints staggered. Fasten base layer panels to studs with one inch long screws, spaced 24 inches on center.



## DIVISION 09 – FINISHES

### SECTION 09 29 00 – GYPSUM BOARD

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- b. Use laminating adhesive between plies in accordance with UL or FM if required by fire test.
  - c. Apply face layer of gypsum board required by fire test vertically over base layer with joints staggered and attach with screws of sufficient length to secure to framing staggered from those in base, spaced 12 inches on center.
2. One hour wall with one layer on finish side of wall: Apply face layer of gypsum board vertically. Attach to studs with screws of sufficient length to secure to framing, spaced 12 inches on center in field and along edges.
  3. Where coreboard is covered with face layer of gypsum board, stagger joints of face layer from those in the coreboard base.
- E. Treat joints, corners, and fasteners in face layer as specified for finishing of gypsum board. F. Elevator Shafts:
1. Protrusions including fasteners other than flange of shaft wall framing system or offsets from vertical alignments more than 1/8-inch are not permitted unless shown.
  2. Align shaft walls for plumb vertical flush alignment from top to bottom of shaft.

#### 3.06 FINISHING OF GYPSUM BOARD

- A. Finish joints, edges, corners, and fastener heads in accordance with ASTM C840. Use Level 4 finish for all finished areas open to public view.
- B. Before proceeding with installation of finishing materials, assure the following:
1. Gypsum board is fastened and held close to framing or furring.
  2. Fastening heads in gypsum board are slightly below surface in dimple formed by driving tool.
- C. Finish joints, fasteners, and all openings, including openings around penetrations, on that part of the gypsum board extending above suspended ceilings to seal surface of non-decorated, smoke barrier, fire rated, and sound rated gypsum board construction. After the installation of hanger rods, hanger wires, supports, equipment, conduits, piping and similar work, seal remaining openings and maintain the integrity of the smoke barrier, fire rated, and sound rated construction. Sanding is not required of non-decorated surfaces.

#### 3.07 REPAIRS

- A. After taping and finishing has been completed, and before decoration, repair all damaged and defective work, including nondecorated surfaces.
- B. Patch holes or openings 1/2 inch or less in diameter, or equivalent size, with a setting type finishing compound or patching plaster.
- C. Repair holes or openings over 1/2-inch diameter, or equivalent size, with 5/8-inch-thick gypsum board secured in such a manner as to provide solid substrate equivalent to undamaged surface.

Tape and refinish scratched, abraded or damaged finish surfaces including cracks and joints in non-decorated surface to provide, smoke tight construction, fire protection equivalent to the fire rated construction, and STC equivalent to the sound rated construction.

**END OF SECTION**

**DIVISION 09 – FINISHES**  
**SECTION 09 30 00 – TILING**

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**PART 1 - GENERAL**

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**1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

**1.02 DESCRIPTION OF WORK**

The extent and location of where to install tiling is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of glazed wall tile, floor tile, and tile at threshold door openings, in accordance with the Drawings and these Specifications.

**1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American National Standards Institute (ANSI) A137.1 American National Standard Specifications for Ceramic Tile
- C. Tile Council of North America, Inc. (TCNA): Handbook for Ceramic Tile Installation

**1.01 QUALITY ASSURANCE**

- A. Installers to be from a company specializing in performing installation of products specified and have a minimum of three (3) years' experience and five (5) successful installations.
- B. Each type and color of tile to be provided from a single source.
- C. Each type and color of mortar, adhesive, and grout to be provided from the same source.

**1.02 SUBMITTALS**

- A. Submit the manufacturer's color charts consisting of actual tiles or sections of tiles showing full range of colors, textures and patterns available for each type of tile specified. Include samples of grout and accessories requiring color selection
- B. Samples:
  - 1. Tile, each type, each color, each size.
  - 2. Trim shapes, bullnose cap and cove including bullnose cap and base pieces at internal and external corners of vertical surfaces, each type, color, and size.
- C. Product Data:
  - 1. Tile, marked to show each type, size, and shape required.
  - 2. Cementitious backer unit.
  - 3. Dry-set portland cement mortar and grout.
  - 4. Divider strip.
  - 5. Elastomeric membrane and bond coat.
  - 6. Reinforcing tape.

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7. Leveling compound.
  8. Latex-portland cement mortar and grout.
  9. Commercial portland cement grout.
  10. Organic adhesive.
  11. Waterproofing isolation membrane.
  12. Fasteners.
- D. Certification:
1. Master grade certificate, ANSI A137.1.
  2. Manufacturer's certificates indicating that the following materials comply with specification requirements:
    - a. Modified epoxy emulsion.
    - b. Commercial portland cement grout.
    - c. Cementitious backer unit.
    - d. Dry-set portland cement mortar and grout.
    - e. Elastomeric membrane and bond coat.
    - f. Reinforcing tape.
    - g. Latex-portland cement mortar and grout.
    - h. Leveling compound.
    - i. Organic adhesive.
    - j. Waterproof isolation membrane.
    - k. Factory back mounted tile documentation for suitability for application in wet area.
- E. Installer Qualifications: Submit letter stating installer's experience.

#### 1.03 PROJECT CONDITIONS

- A. Maintain environmental conditions and protect work during and after installation to comply with references standards and manufacturer's printed recommendations.
- B. Vent temporary heaters to exterior to prevent damage to tile work from carbon dioxide buildup.
- C. Maintain temperatures at 50 degrees F or more in tiled areas during installation and for seven (7) days after completion, unless higher temperatures are required by referenced installation standard or manufacturer's instructions.

#### 1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store package materials in original containers with seals unbroken and labels intact until time of use. Comply with requirement of ANSI A137.1 for labeling sealed tile packages.
- B. Prevent damage or contamination to materials by water, freezing, foreign matter, and other causes.
- C. Handle tile with temporary protective coating on exposed surfaces to prevent coated surfaces from contacting backs or edges of other units. If, despite these precautions, coating does contact bonding surfaces of tile, remove coating from bonding surfaces before setting tile.

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**PART 2 - PRODUCTS**

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**2.01 PREAPPROVED MANUFACTURERS**

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include, but are not limited to, the following.
- B. Manufacturers: All materials shall be obtained from one (1) source for each type and color of tile, grout, and setting materials. Subject to compliance with requirements, tiles will be indicated in the Color Schedule or as directed by the Project Lead, by one of the following manufacturers and associated product line:
  - 1. Mosa: Global Collection / Globalgrip  
(<https://www.mosa.com/en-us/products/collection/global-collection-globalgrip>)
  - 2. Mapei: Grout (<https://www.mapei.com/us/en-us/home-page>)

**2.02 PRODUCTS**

- A. Comply with ANSI A137.1, Standard Grade, except as modified:
  - 1. Inspection procedures listed under the Appendix of ANSI A137.1.
  - 2. Abrasion Resistance Classification:
    - a. Tested in accordance with values listed in Table 1, ASTM C1027.
    - b. Class V, 12000 revolutions for floors in Corridors, Kitchens, Storage including Refrigerated Rooms
    - c. Class IV, 6000 revolutions for remaining areas.
  - 3. Slip Resistant Tile for Floors:
    - a. Coefficient of friction, when tested in accordance with ANSI A137.1 and measured per the TCNA DCOF AcuTest.
      - i. Equal to or greater than .42 for level interior tile floors that will be walked on when wet.
    - b. Tile Having Abrasive Grains:
      - i. Unglazed Ceramic Mosaic Tile: Abrasive grains throughout body of the tile.
      - ii. Quarry Tile: Abrasive grains uniformly embedded in face at rate of approximately 7.5 percent of surface area.
    - c. Porcelain Paver Tile: Matte surface finish
  - 4. Factory Blending: For tile with color variations, within the ranges selected during sample submittals blend tile in the factory and package so tile units taken from one (1) package show the same range in colors as those taken from other packages and match approved samples.
  - 5. Factory-Applied Temporary Protective Coating:
    - a. Protect exposed face surfaces (top surface) of tile against adherence of mortar and grout by pre-coating with a continuous film of hot applied petroleum paraffin wax.
    - b. Do not coat unexposed tile surfaces.

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- c. Sealer: All tile surfaces shall be sealed using the requirement from Section 07 92 00 – Joint Sealants, or as directed by the Contract Task Order project manager or representative.

#### 2.03 COLORS, TEXTURES, AND PATTERNS

- A. Where manufacturer's standard products are indicated for tile, grout, and other products requiring selection of colors, surface textures, patterns, and other appearance characteristics, provide specific products or materials complying with the following requirements:
  1. Match color, texture, and pattern indicated by reference to manufacturer's standard designations for these characteristics.
  2. Provide selections made by Contract Task Order project manager or representative from manufacturer's full range of standard colors, textures, and patterns for products of type indicated.
  3. Provide tile trim and accessories that match color and finish of adjoining flat tile.

#### 2.04 TILE PRODUCTS

- A. Wall Tile:
  1. Glazed Wall Tile: Provide flat tile complying with the following requirements:
    - a. Nominal Facial Dimensions: 6-inches by 6-inches including 6-inch by 6-inch base and bullnose
    - b. Nominal Thickness: 5/16-inch
    - c. Face: Pattern of design indicated, with manufacturer's standard edge
    - d. Mounting: Factory back-mounted
    - e. Moisture Absorption: 0.5 to 3.0-percent
    - f. Surface Finish: Matte glazed
    - g. Standard Wall Tiles:
      - i. Tile 1: Mosa Global Collection, small speck matte, 75420 Pearl White
      - ii. Tile 2: Mosa Global Collection, gloss plain, 75230 Plain Mouse Gray
      - iii. The above referenced wall tiles are standard tiles throughout the Utility Center; however, the Contract Task Order project manager or representative may select any color option from the Mosa Global Collection product line at no additional cost.
  2. Trim Units: Provide tile trim units to match characteristics of adjoining flat tile and to comply with following requirements:
    - a. Size: As indicated, coordinated with sizes and coursing of adjoining flat tile where applicable.
    - b. Shapes: As follows, selected from manufacturer's standard shapes.
  3. Base for Portland cement mortar installations: Coved
  4. Wainscot cap for Portland cement mortar installations: Bullnose cap
  5. Internal corners: Field-buttet square corners, except use coved base and cap angle pieces designed to member with stretcher shapes.

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- B. Floor Tile:
1. Moisture absorption: 0.5- to 3.0-percent
  2. Nominal Size: 12-inch by 12-inch
  3. Shape: square, provide manufacturer's standard bullnose edge time, allow for 15-percent accent trim color area
  4. Edge: square
  5. Surface finish: matte glazed slip resistant
  6. Floor Tile:
    - a. Per the Contract Documents
    - b. Crossville Color Blox 2.0
    - c. The above referenced floor tiles are standard tiles throughout the Utility Center; however, the project lead may select any color option from the Mosa Global Collection or Crossville Color Blox 2.0 product lines at no additional cost.

**2.05 SETTING MATERIALS OR BOND COATS**

- A. Portland Cement Mortar: ANSI A 108.02
- B. Latex-Portland Cement Mortar: ANSI A118.4.
1. For wall applications, provide non-sagging, latex-portland cement mortar complying with ANSI A118.4.
  2. Prepackaged Dry-Mortar Mix: Factory-prepared mixture of portland cement; dry, redispersible, ethylene vinyl acetate additive; and other ingredients to which only water needs to be added at Project site.
- C. Dry-Set Portland Cement Mortar: ANSI A118.1. For wall applications, provide non-sagging, latex-portland cement mortar complying with ANSI A118.1.
- D. Organic Adhesives: ANSI A136.1, Type 1.
- E. Cementitious Backer Unit
1. Use in showers or wet areas.
  2. Conform to ASTM C1325; Type A.
  3. Use in maximum lengths available to minimize end to end butt joints.
- F. Joint Material for Cementitious Backer Unit
1. Reinforcing Tape: Vinyl coated woven glass fiber mesh tape, open weave, 2 inches wide. Tape with pressure sensitive adhesive backing will not be permitted.
  2. Tape Embedding Material: Latex-portland cement mortar complying with ANSI A108.01.
  3. Joint material, including reinforcing tape, and tape embedding material, are to be as specifically recommended by the backer unit manufacturer.

**2.06 GROUTING MATERIALS**

- A. Coloring Pigments:
1. Pure mineral pigments, lime proof and nonfading, complying with ASTM C979/C979M.
  2. Coloring pigments may only be added to grout by the manufacturer.

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3. Job colored grout is not acceptable.
  4. Use is required in Commercial Portland Cement Grout, Dry-Set Grout, and Latex-Portland Cement Grout.
- B. Sand-Portland Cement Grout: ANSI A108.10, consisting of white or gray cement and white or colored aggregate as required to produce color indicated.
- C. Standard Cement Grout: ANSI A118.6.
- D. High Performance Tile Grout: ANSI A118.7.
1. Polymer Type: Ethylene vinyl acetate or acrylic additive, in dry, redispersible form, prepackaged with other dry ingredients.
  2. Polymer Type: Acrylic resin or styrene-butadiene rubber in liquid-latex form for addition to prepackaged dry-grout mix.
- E. Water-Cleanable Epoxy Grout: ANSI A118.
- F. Provide product capable of withstanding continuous and intermittent exposure to temperatures of up to 140 and 212 degrees F, respectively, and certified by manufacturer for intended use.

#### **2.07 PATCHING AND LEVELING COMPOUND**

- A. Portland cement base, polymer-modified, self-leveling compound, manufactured specifically for resurfacing and leveling concrete floors. Products containing gypsum are not acceptable.
- B. Provide a patching and leveling compound with the following minimum physical properties:
1. Compressive strength – 3,500 psi per ASTM C109/C109M.
  2. Flexural strength - 1000 psi per ASTM C348 (28 day value).
  3. Tensile strength – 600 psi per ANSI 118.7.
  4. Density – 1.9.
- C. Capable of being applied in layers up to 1-1/2 inches thick without fillers and up to 4 inches thick with fillers, being brought to a feather edge, and being trowelled to a smooth finish.
- D. Primers, fillers, and reinforcement as required by manufacturer for application and substrate condition. E. Ready for use in 48 hours after application.

#### **2.08 CLEANING COMPOUNDS**

- A. Specifically designed for cleaning masonry and concrete and which will not prevent bond of subsequent tile setting materials including patching and leveling compounds and elastomeric waterproofing membrane and coat.
- B. Materials containing acid or caustic Material are not acceptable.

### **PART 3 - EXECUTION**

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#### **3.01 COORDINATION**

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

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#### **3.02 ENVIRONMENTAL REQUIREMENTS**

- A. Maintain ambient temperature of work areas at not less than 60 degrees F, without interruption, for not less than 24 hours before installation and not less than three (3) days after installation.
- B. Maintain higher temperatures for a longer period of time where required by manufacturer's recommendation and ANSI Specifications for installation.
- C. Do not install tile when the temperature is above 100 degrees F.
- D. Do not install materials when the temperature of the substrate is below 60 degrees F.
- E. Do not allow temperature to fall below 10 degrees C (50 degrees F) after third day of completion of tile work.

#### **3.03 ALLOWABLE TOLERANCE**

- A. Variation in plane of sub-floor, including concrete fills leveling compounds and mortar beds:
  - 1. Not more than 1/4 inch in 10 feet from required elevation where portland cement mortar setting bed is used.
  - 2. Not more than 1/8 inch in 10 feet where dry-set portland cement, and latex-portland cement mortar setting beds are used.
- B. Variation in Plane of Wall Surfaces:
  - 1. Not more than 1/4 inch in 8 feet from required plane where portland cement mortar setting bed is used.
  - 2. Not more than 1/8 inch in 8 feet where dry-set or latex-portland cement mortar or organic adhesive setting materials is used.

#### **3.04 SURFACE PREPARATION**

- A. Cleaning New Concrete or Masonry:
  - 1. Chip out loose material, clean off all oil, grease dirt, adhesives, curing compounds, and other deterrents to bonding by mechanical method, or by using products specifically designed for cleaning concrete and masonry.
  - 2. Use self-contained power blast cleaning systems to remove curing compounds and steel trowel finish from concrete slabs where ceramic tile will be installed directly on concrete surface with thin-set materials.
  - 3. Steam cleaning or the use of acids and solvents for cleaning will not be permitted.
- B. Patching and Leveling:
  - 1. Mix and apply patching and leveling compound in accordance with manufacturer's instructions.
  - 2. Fill holes and cracks and align concrete floors that are out of required plane with patching and leveling compound.
    - a. Thickness of compound as required to bring finish tile system to elevation shown on construction documents.
    - b. Float finish except finish smooth for elastomeric waterproofing.
    - c. At substrate expansion, isolation, and other moving joints, allow joint of same width to continue through underlayment.



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3. Apply patching and leveling compound to concrete and masonry wall surfaces that are out of required plane.
  4. Apply leveling coats of material compatible with wall surface and tile setting material to wall surfaces, other than concrete and masonry that are out of required plane.
- C. Mortar Bed for Slopes to Drains:
1. Slope compound to drain where drains are shown on construction documents.
  2. Install mortar bed in depressed slab sloped to drains not less than 1/8 inch per foot.
  3. Allow not less than 2 inch depression at edge of depressed slab.
  4. Screed for slope to drain and float finish.
  5. Cure mortar bed for not less than seven (7) days. Do not use curing compounds or coatings.
  6. Perform flood test to verify mortar bed slopes to drain before installing tile. The City's project manager or representative is to be present during flood test.
- D. Additional preparation of concrete floors for tile set with epoxy, or furan-resin is to be in accordance with the manufacturer's printed instructions.
- E. Cleavage Membrane:
1. Install polythene sheet as cleavage membrane in depressed slab when waterproof membrane is not scheduled or indicated.
  2. Turn up at edge of depressed floor slab to top of floor.
- F. Walls:
1. In showers or other wet areas cover studs with polyethylene sheet.
  2. Use of cementitious backer unit is preferred in showers or other wet areas.
  3. Where full height tile walls or tile wainscots are required on new metal lath surfaces, install scratch and leveling coats applied as specified below.
  4. Apply patching and leveling compound to concrete and masonry surfaces that are out of required plane.
  5. Apply leveling coats of material compatible with wall surface and tile setting material to wall surfaces, other than concrete and masonry that are out of required plane.
  6. Apply metal lath to framing in accordance with ANSI A108.1:
    - a. Use fasteners specified in paragraph "Fasteners." Use washers when lath opening is larger than screw head.
    - b. Apply scratch and leveling coats to metal lath in accordance with ANSI A108.1C.
    - c. Total thickness of scratch and leveling coats:
      - i. Apply 3/8 inch to 5/8 inch thick over solid backing.
      - ii. 5/8 to 3/4 inch thick on metal lath over studs.
      - iii. Where wainscots are required to finish flush with wall surface above, adjust thickness required for flush finish.
    - d. Apply scratch and leveling coats more than 3/4 inch thick in two (2) coats.

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#### G. Existing Floors and Walls:

1. Remove existing composition floor finishes and adhesive. Prepare surface by grinding, chipping, self-contained power blast cleaning or other suitable mechanical methods to completely expose uncontaminated concrete or masonry surfaces. Follow safety requirements of ANSI A10.20.
2. Remove existing concrete fill or topping to structural slab. Clean and level the substrate for new setting bed and waterproof membrane or cleavage membrane.
3. Where new tile bases are required to finish flush with plaster above or where they are extensions of similar bases in conjunction with existing floor tiles, cut channel in floor slab and expose rough wall construction sufficiently to accommodate new tile base and setting material.

### 3.05 CEMENTITIOUS BACKER UNITS

- A. Remove polyethylene wrapping from cementitious backer units and separate to allow for air circulation. Allow moisture content of backer units to dry down to a maximum of 35 percent before applying joint treatment and tile.
- B. Install in accordance with ANSI A118.9 except as specified otherwise.
- C. Install units horizontally or vertically to minimize joints with end joints over framing members. Units with rounded edges; face rounded edge away from studs to form a “V” joint for joint treatment.
- D. Secure cementitious backer units to each framing member with screws spaced not more than 8 inches on center and not closer than 1/2 inch from the edge of the backer unit or as recommended by backer unit manufacturer. Install screws so that the screw heads are flush with the surface of the backer unit.
- E. Where backer unit joins shower pans or waterproofing, lap backer unit over turned up waterproof system. Install fasteners only through top one-inch of turned up waterproof systems.
- F. Do not install joint treatment for seven (7) days after installation of cementitious backer unit.
- G. Joint Treatment:
  1. Fill horizontal and vertical joints and corners with latex-portland cement mortar. Apply fiberglass tape over joints and corners and embed with same mortar.
  2. Leave 1/4 inch space for sealant at lips of tubs, sinks, or other plumbing receptors.

### 3.06 TILE - GENERAL

- A. Comply with ANSI A108/A118/A136 series of tile installation standards applicable to methods of installation and TCNA Installation Guidelines.
- B. Installing Mortar Beds for Floors:
  1. Install mortar bed in a manner that does not damage cleavage or waterproof membrane; 1-1/2-inch minimum thickness.
  2. Install floor mortar bed reinforcing centered in mortar fill.
  3. Screed finish to level plane or slope to drains shown on construction documents, float finish.
  4. For thin set systems cure mortar bed not less than seven (7) days. Do not use curing compounds or coatings.

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5. For tile set with portland cement paste over plastic mortar bed coordinate to set tile before mortar bed sets.
- C. Setting Beds or Bond Coats:
1. Where recessed or depressed floor slabs are filled with portland cement mortar bed, set floor tile in either portland cement paste over plastic mortar bed or latex-portland cement mortar over cured mortar bed except as specified otherwise, ANSI A108-1C, TCNA System F121-14 or F111-14.
  2. Set floor tile in elastomeric bond coat over elastomeric membrane per ANSI 108.13, TCNA System F122-14 where indicated on construction documents.
  3. Set wall tile installed over concrete or masonry in dry-set portland cement mortar, or latex-portland cement mortar, ANSI 108.1B and TCNA System W211-14, W221-14 or W222-14.
  4. Set wall tile installed over concrete backer board in latex-portland cement mortar, ANSI A108.1B.
  5. Set wall tile installed over portland cement mortar bed on metal lath base in portland cement paste over plastic mortar bed, or dry-set portland cement mortar or latex-portland cement mortar over a cured mortar bed, ANSI A108.1C, TCNA System W231-14, W241-14.
  6. Set tile installed over gypsum board and gypsum plaster in organic adhesive, ANSI A108.1, TCNA System W242-14.
  7. Set trim shapes in same material specified for setting adjoining tile.
- D. Workmanship:
1. Lay out tile work so that no tile less than one-half full size is used. Make all cuts on the outer edge of the field. Align new tile work scheduled for existing spaces to the existing tile work unless specified otherwise.
  2. Set tile firmly in place with finish surfaces in true planes. Align tile flush with adjacent tile unless shown otherwise on construction documents.
  3. Form intersections and returns accurately.
  4. Cut and drill tile neatly without marring surface.
  5. Cut edges of tile abutting penetrations, finish, or built-in items:
    - a. Fit tile closely around electrical outlets, piping, fixtures and fittings, so that plates, escutcheons, collars and flanges will overlap cut edge of tile.
    - b. Seal tile joints water tight as specified in Section 07 92 00, JOINT SEALANTS, around electrical outlets, piping fixtures and fittings before cover plates and escutcheons are set in place.
  6. Completed work is to be free from hollow sounding areas and loose, cracked or defective tile.
  7. Remove and reset tiles that are out of plane or misaligned.
  8. Floors:
    - a. Extend floor tile beneath casework and equipment, except those units mounted in wall recesses.

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- b. Align finish surface of new tile work flush with other and existing adjoining floor finish where indicated in construction documents.
  - c. In areas where floor drains occur, slope tile to drains.
  - d. Push and vibrate tiles over 8 inches square to achieve full support of bond coat.
9. Walls:
- a. Cover walls and partitions, including pilasters, furred areas, and freestanding columns from floor to ceiling, or from floor to nominal wainscot heights as indicated in construction documents with tile.
  - b. Finish reveals of openings with tile, except where other finish materials are indicated in construction documents.
  - c. At window openings, provide tile stools and reveals.
  - d. Finish wall surfaces behind and at sides of casework and equipment, except those units mounted in wall recesses, with same tile as scheduled for room proper.
10. Joints:
- a. Keep all joints in line, straight, level, perpendicular and of even width unless shown otherwise on construction documents.
  - b. Make joints 1/16 inch wide for glazed wall tile and mosaic tile work.
  - c. Make joints in quarry tile work not less than 1/4 inch nor more than 3/8 inch wide. Finish joints flush with surface of tile.
  - d. Make joints in paver tile, porcelain type; maximum 1/8 inch wide.
11. Back Buttering: For installations indicated below, obtain 100 percent mortar coverage by complying with applicable special requirements for back buttering of tile in referenced ANSI A108/A118/A136 series of tile installation standards:
- a. Tile wall installations in wet areas, including showers, tub enclosures, and laundries.
  - b. Tile wall installations composed of tiles 8 by 8 inches or larger.
  - c. Exterior tile wall installations.

#### **3.07 CERAMIC TILE INSTALLED WITH PORTLAND CEMENT MORTAR**

- A. Mortar Mixes for Floor, Wall and Base Tile (including Showers): ANSI A108.1A, except specified otherwise.
- B. Installing Wall and Base Tile: ANSI A108.1A, except specified otherwise.
- C. Installing Floor Tile: ANSI A108.1A, except as specified otherwise. Slope mortar beds to floor drains at a minimum of 1/8 inch per foot.

#### **3.08 PORCELAIN TILE INSTALLED WITH LATEX PORTLAND CEMENT BONDING MORTAR**

- A. Due to the denseness of porcelain tile use latex portland cement bonding mortar that meets the requirements of ANSI A108.01. Mix bonding mortars in accordance with manufacturer's instructions. Provide liquid ratios and comply with dwell times during the placement of bonding mortar and tile.

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#### **3.09 THIN SET CERAMIC AND PORCELAIN TILE INSTALLED WITH DRY-SET PORTLAND CEMENT AND LATEX-PORTLAND CEMENT MORTAR**

- A. A. Installation of Tile: ANSI A108.1B, except as specified otherwise.
- B. B. Slope tile work to drains at not less than 1/8 inch per foot.

#### **3.10 CERAMIC AND PORCELAIN TILE INSTALLED WITH ELASTOMERIC BOND COAT**

- A. Surface Preparation: Prepare surfaces as specified.
- B. Installation of Elastomeric Membrane: ANSI A108.10 and TCNA F122-14 (on ground concrete) and F122A-14 (above-ground concrete).
  - 1. Prime surfaces, where required, in accordance with manufacturer's instructions.
  - 2. Install first coat of membrane material in accordance with manufacturer's instructions, in thickness of 30 to 50 mils.
  - 3. Extend material over flashing rings of drains and turn up vertical surfaces not less than 4 inches above finish floor surface.
  - 4. When material has set, recoat areas with a second coat of elastomeric membrane material for a total thickness of 50 to 75 mils.
  - 5. After curing test for leaks with 1 inch of water for 24 hours.
- C. Installation of Tile in Elastomeric Membrane:
  - 1. Spread no more material than can be covered with tile before material starts to set.
  - 2. Apply tile in second coat of elastomeric membrane material in accordance with the coating manufacturer's instructions in lieu of aggregate surfacing specified in ASTM C1127. Do not install top coat over tile.

#### **3.11 GROUTING**

- A. Grout Type and Location:
  - 1. Grout for glazed wall and base tile, paver tile and unglazed mosaic portland cement grout, latex-portland cement grout, dry-set grout, or commercial portland cement grout.
  - 2. Grout for quarry tile floor and base: Epoxy grout
- B. Workmanship:
  - 1. Install and cure grout in accordance with the applicable standard.
  - 2. Sand Portland Cement Grout: ANSI A108.10.
  - 3. Standard Cement Grout: ANSI A118.6.
  - 4. High Performance Grout: ANSI A118.7.
  - 5. Epoxy Grout: ANSI A108.6.
  - 6. Water-Cleanable Epoxy Grout: ANSI A118.3.
  - 7. Furan and Commercial Portland Cement Grout: ANSI A118.5 and in accordance with the manufacturer's printed instructions.

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#### **3.12 MOVEMENT JOINTS**

- A. Prepare tile expansion, isolation, construction and contraction joints for installation of sealant. Refer to Section 07 92 00 - JOINT SEALANTS.
- B. TCNA details EJ 171-14.
- C. At expansion joints, rake out joint full depth of tile and setting bed and mortar bed. Do not cut waterproof or isolation membrane.
- D. Rake out grout at joints between tile, tub, service sink, at toe of base, and where indicated in construction documents not less than 1/4 inch deep.

#### **3.13 CLEANING**

- A. Thoroughly sponge and wash tile. Polish glazed surfaces with clean dry cloths.
- B. Methods and materials used are not permitted to damage or impair appearance of tile surfaces.
- C. The use of acid or acid cleaners on glazed tile surfaces is prohibited.
- D. Clean tile grouted with epoxy, furan and commercial portland cement grout and tile set in elastomeric bond coat as recommended by the manufacturer of the grout and bond coat.

#### **3.14 PROTECTION**

- A. Keep traffic off tile floor for a minimum of seven (7) days, or until grout and setting material is fully set and cured whichever is longer.
- B. Where traffic occurs over tile floor is unavoidable, cover tile floor with not less than 3/8 inch thick plywood, wood particle board, or hardboard securely taped in place. Do not remove protective cover until time for final inspection. Clean tile of any tape, adhesive and stains.

<b>END OF SECTION</b>
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## DIVISION 09 – FINISHES

### SECTION 09 50 00 – CEILINGS

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of where to install ceilings is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of pre-finished metal grid modular system to accommodate acoustical lay-in ceiling panels, light fixtures, air diffusers, and as indicated or required for completed assembly, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. Ceiling and Interior Systems Construction Association (CISCA): Acoustical Ceilings Use & Practice

##### 1.01 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
  - 1. Regularly manufactures specified products.
  - 2. Manufactured specified products with satisfactory service on five similar installations for minimum five years.

##### 1.02 SUBMITTALS

- A. Submittal Drawings:
  - 1. Show size, configuration, and fabrication and installation details, including support for electrical fixtures, mechanical diffusers, etc.
- B. Manufacturer's Literature and Data:
  - 1. Description of each product.
  - 2. Ceiling suspension system indicating manufacturer recommendation for each application.
  - 3. Installation instructions.
  - 4. Warranty.
- C. Samples:
  - 1. Acoustical units, 6 inches in size, each type, including units specified to match existing.
    - a. Submit quantity required to show full color and texture range.
  - 2. Suspension system, trim and molding, 12 inches long.
  - 3. Colored markers for access service.

## **DIVISION 09 – FINISHES**

### **SECTION 09 50 00 – CEILINGS**

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4. Approved samples may be incorporated into work.
- D. Design data: Submit complete details showing compliance with seismic bracing requirements of the Washington State Building Code, and City of Tacoma Building Code. Design will be reviewed by structural project manager or representative licensed in Washington State, which will be included in the Contract Task Order.
- E. Certificates: Certify products comply with specifications.
  1. Acoustical units, each type.
- F. Qualifications: Substantiate qualifications comply with specifications.
- G. Operation and Maintenance Data: 1. Care instructions for each exposed finish product.

#### **1.03 PROJECT CONDITIONS**

- A. Installation shall not start until gypsum board, concrete and other wet work is completed and cured.
- B. Environment:
  1. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent before, during, and after acoustical unit installation.
  2. Work Area Ambient Conditions: HVAC systems are complete, operational, and maintaining facility design operating conditions continuously, beginning 48 hours before installation until occupancy.
  3. Install products when building is permanently enclosed and when wet construction is completed, dried, and cured.
- C. Comply with all recommendation from CISCA Acoustical Ceilings Use and Practice requirements.

#### **1.04 DELIVERY, STORAGE AND HANDLING**

- A. Deliver products in original, unopened, protective packaging. Attach legible manufacturer's labels indicating brand name, pattern, size and thickness.
- B. Acceptance at site: Verify undamaged condition.
- C. Store products in original protective packaging in safe, protected location.
- D. Do not begin installation until sufficient materials are received to complete space.
- E. Handle at all times to prevent soiling and physical damage.

### **PART 2 - PRODUCTS**

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#### **2.01 SYSTEM DESCRIPTION**

- A. Pre-finished metal grid modular system to accommodate acoustical lay-in ceiling panels, light fixtures, air diffusers, and as indicated or required for completed assembly.
  1. Finished installation is required to conceal plenum, yet allow access to its services.
  2. Make provisions for vertical as well as horizontal suspension systems.

#### **2.02 SYSTEM PERFORMANCE**

- A. Design product complying with specified performance:
  1. Maximum Deflection: 1/360 of span, maximum.



## DIVISION 09 – FINISHES

### SECTION 09 50 00 – CEILINGS

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2. System shall lock together in a positive manner providing a minimum tension capacity of 300 pounds force at cross tee connections, and 200 pounds force on main tee splices.
  3. Acoustical system shall be designed for and provide support at electrical fixtures, mechanical diffusers, and the like in accordance with the International Building Code requirements including the special requirements of the Washington State, and the City of Tacoma, ordinances, and other applicable regulatory requirements.
- B. Fire Resistance: ASTM E119; as component of 2 hour rated floor-ceiling or roof-ceiling assembly.
1. Flame Spread Rating: 25 maximum.
  2. Smoke Developed Rating: 50 maximum.
- C. Surface Burning Characteristics: When tested according to ASTM E84.

#### 2.03 PREAPPROVED MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include, but are not limited to, the following.
1. Armstrong World Industries (<https://www.armstrongceilings.com/>)
    - a. Non-rated: Armstrong "Suprafine XL"
    - b. Rated: Armstrong "Suprafine XL Fire Guard"
    - c. Armstrong, Dune Ceilings, Item 1775, panel size 24 inch by 24 inch by 5/8 inch;
    - d. Armstrong, Dune Ceilings, item 1777, panel size 24 inch by 48 inch by 5/8 inch.
    - e. Armstrong, Optima Ceilings, Item 3251, panel size 24 inch by 24 inch by 1 inch;
    - f. Armstrong, Optima Ceilings, item 3257, panel size 24 inch by 48 inch by 1 inch.
  2. USG Interior Inc. (<https://www.usg.com/content/usgcom/en.html>)
    - a. Donn® Brand Centricitee™ DXT™ 9/16" Acoustical Suspension System
- B. Manufacturers: All materials shall be obtained from one (1) source for each type of ceiling to be installed.

#### 2.04 ACOUSTICAL UNITS

- A. Beveled tegular acoustical panels for 9/16" exposed tee ceiling suspension system.
1. Basic compliance standard: ASTM E1264
    - a. Type III – Mineral base
    - b. Form 2 – Water felted
    - c. Pattern C E – Perforated small holes/fine fissured.
    - d. Fire Class A – Flame spread: 0-25, Smoke Developed: 0-50
  2. NRC (Noise Reduction Coefficient) range: ASTM C423, 0.60-0.70
  3. CAC (Ceiling Attenuation Class) range: ASTM E413, 35-40
  4. Panel edge detail: Reveal edge
  5. Exposed surface color: White
  6. Exposed surface finish: Factory-applied latex paint

## DIVISION 09 – FINISHES

### SECTION 09 50 00 – CEILINGS

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7. Accessories: As required to complete installation in accordance with manufacturer's instructions and as indicated.
- B. Square tegular acoustical panels for 9/16" exposed tee ceiling suspension system.
  1. Basic compliance standard: ASTM E1264
    - a. Type XII – Glass fiber base with membrane face overlay
    - b. Form 2 – Water felted
    - c. Pattern E – Lightly textured
    - d. Fire Class A – Flame spread: 0-25, Smoke Developed: 0-50
  2. NRC range: ASTM C423, 0.90-.95
  3. Panel edge detail: Reveal edge
  4. Exposed surface color: White
  5. Exposed surface finish: Factory-applied latex paint
  6. Accessories: As required to complete installation in accordance with manufacturer's instructions and as indicated.

#### 2.05 METAL SUSPENSION SYSTEM

- A. Grid suspension systems: ASTM C635 and ASTM C636, intermediate duty, interlocking main runners and override cross tees, narrow faced continuous rolled steel-capped double web system, direct hung, suspended ceiling system, exposed grid, for lay-in acoustical panel ceilings.
  1. Main runners, cross tees, wall moldings materials: Double-wed, cold-rolled electro-galvanized steel.
    - a. Main-tee and cross-tee, double web design with rectangular or round bulb.
    - b. Cross-tee with extended web forming positive interlock; lower flange extended and offset.
    - c. Hanger holes as required for system.
    - d. Exposed flanges: 9/16-inch wide
    - e. Main-tees and cross-tees: 1-1/2-inch deep
    - f. Grid size: As indicated on plans.
  2. Wall moldings: Suprafine "7800" wall leg molding by 9/16-inch horizontal support leg.
  3. Surface finish: Baked polyester paint.
  4. Seismic performance: Comply with seismic zone 4 for components and design system.
- B. Hanger Wire
  1. Minimum 12-gauge galvanized carbon steel conforming to ASTM A 641, soft-annealed, mild steel, pre-stretched, yield stress load of at least three (3) times design load and as required by Code requirements.
  2. Suspension wires for light fixtures: Intermediate or heavy duty.
- C. Accessories: Provide support, trim and necessary devices to complete system.
- D. Sway and seismic bracing: In accordance with Code requirements.
- E. Furnish components from single manufacturer.

## **DIVISION 09 – FINISHES**

### **SECTION 09 50 00 – CEILINGS**

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#### **PART 3 - EXECUTION**

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##### **3.01 COORDINATION**

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

##### **3.02 PREPARATION**

- A. Contractor shall field verify the extents and adequacy of the ceiling system prior to procurement.
- B. Examine and verify substrate suitability for product installation.
- C. Coordinate the Work of this section with other trades prior to installation.
- D. Coordinate ceiling areas with mechanical and electrical installations including penetrations and inserts. Verify exact locations shown on drawings
- E. Protect existing construction and completed work from damage.

##### **3.03 INSTALLATION**

- A. Install products according to manufacturer's instructions and approved submittal drawings.
  - 1. When manufacturer's instructions deviate from specifications, submit proposed resolution for the City's consideration.
- B. Provide hangers, channels, connectors, clips, and as required for installation of ceiling related accessories.
- C. Allowable Tolerance:
  - 1. Level main runners and cross tees to within 1/8-inch in 12-feet.
- D. Hanger Wires
  - 1. Space in accordance with referenced ASTM C636.
  - 2. Install hangers within 6-inches of each corner of light fixtures, if dead load of fixture exceeds deflection capability of ceiling suspension system.
  - 3. Install hangers within 6-inches from vertical surfaces.
  - 4. Do not splay hangers more than 5-inches in vertical drop.
  - 5. Locate anchors such that hangers do not interfere with mechanical or electrical work.
  - 6. Do not support from duct work or piping.
  - 7. Reinforce vertical support systems with metal angles pop riveted into horizontal and vertical main tees at 24-inches on center, or as approved, for rigid system.
  - 8. Sway and seismic bracing: Install in accordance with ASTM E580 and in accordance.
  - 9. Carrying channels and hangers: Provide as required at locations for mechanical equipment above ceiling in dimensions to clear the equipment.
- E. Wall Moldings and Edge Trim
  - 1. Install wall moldings at interlacement with vertical surfaces including columns.

## DIVISION 09 – FINISHES

### SECTION 09 50 00 – CEILINGS

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2. Include outside corner caps.
3. Attach to vertical surfaces with mechanical fasteners.
4. Install required trim for finished and complete installation.

#### 3.04 ACOUSTICAL UNIT INSTALLATION

##### A. Applications:

1. Cut acoustic units for perimeter borders and penetrations to fit tight against penetration for joint not concealed by molding.

##### B. Layout acoustical unit symmetrically, with minimum number of joints.

##### C. Installation:

1. Install acoustic tiles after wet finishes have been installed and solvents have cured.
2. Install lay-in acoustic panels in exposed grid with minimum 1/4 inch bearing at edges on supports.
  - a. Install tile to lay level and in full contact with exposed grid.
  - b. Replace cracked, broken, stained, dirty, or tile.
3. Tile in concealed grid upward access suspension system:
  - a. Install acoustical tile with joints close, straight and true to line, and with exposed surfaces level and flush at joints.
  - b. Make corners and arises full, and without worn or broken places.
  - c. Locate acoustical units providing access to service systems.
4. Markers:
  - a. Install color coded markers to identify the various concealed piping, mechanical, and plumbing systems.
  - b. Attach colored markers to exposed grid on opposite sides of the units providing access.
  - c. Attach marker on exposed ceiling surface of upward access acoustical unit.

##### D. Touch up damaged factory finishes.

1. Repair painted surfaces with touch up primer.

#### 3.05 CEILING TREATMENTS

##### A. Moldings:

1. Install wall molding at perimeter of room, column, or edge at vertical surfaces.
2. Install special shaped molding at changes in ceiling heights and at other breaks in ceiling construction to support acoustical units and to conceal their edges.

##### B. Perimeter Seal:

1. Install perimeter seal between vertical leg of wall molding and finish wall, partition, and other vertical surfaces.
2. Install perimeter seal to finish flush with exposed faces of horizontal legs of wall molding.

##### C. Existing ceiling:

## **DIVISION 09 – FINISHES**

### **SECTION 09 50 00 – CEILINGS**

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1. Where extension of existing ceilings occurs, match existing.
2. Where acoustical units are salvaged and reinstalled or joined, use salvaged units within a space. Do not mix new and salvaged units within a space which results in contrast between old and new acoustic units.
3. Comply with specifications for new acoustical units for new units required to match appearance of existing units.

#### **3.06 CLEAN UP**

- A. Remove excess adhesive before adhesive sets.
- B. Clean exposed surfaces. Remove contaminants and stains.
- C. Remove and replace damaged or improperly installed units at no cost to the City.
- D. Remove all debris resulting from work of this section.

#### **3.07 EXTRA MATERIALS/PARTS**

- A. Submit to the City a complete Maintenance Manual.
- B. Furnish extra material of each type equal to 3-percent of material supplied.
- C. Obtain written receipt when delivered to City and furnish a copy to City.

<b>END OF SECTION</b>
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## DIVISION 09 – FINISHES

### SECTION 09 62 00 – LAMINATE FLOORING

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of where to install laminate flooring is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of laminate flooring, transition molding, end molding, T molding, carpet reducer, hard surface reducer, stair treads, vapor barrier, other accessories, and as indicated or required for completed assembly, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.

##### 1.01 DEFINITIONS

- A. Acclimation: The process of adjusting (conditioning) the moisture content of laminate flooring to the environment in which it is expected to perform.
- B. Equilibrium Moisture Content: The moisture content of laminate when in equilibrium with its environment. When laminate is neither gaining, nor losing moisture, equilibrium moisture content (EMC) has been reached.

##### 1.02 QUALITY ASSURANCE

- A. Installer:
  - 1. Authorized installation dealer, approved by the manufacturer

##### 1.03 SUBMITTALS

- A. Manufacturer's Literature and Data:
  - 1. Description of each product.
  - 2. Installation instructions.
  - 3. Manufacturers dealer certification
  - 4. Warranty
- B. Samples required only for products not preapproved per Part 2 of this specification
  - 1. Include samples of all laminate flooring
  - 2. All molding and any additional accessories to be used for the project.

##### 1.04 PROJECT CONDITIONS

- A. Maintain products at temperatures between 60 degrees F and 80 degrees F for a minimum of 48 hours prior to and after installation.

## **DIVISION 09 – FINISHES**

### **SECTION 09 62 00 – LAMINATE FLOORING**

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- B. Substrates shall be free of particles or substances that may impair the adhesion or telegraph through the flooring.
- C. Condition all flooring materials, adhesives, and accessories per the manufacturers instructions and recommendations prior to starting the Work.
- D. Minimum room temperature shall be 60 degrees F upon completion of installation.

#### **1.05 DELIVERY, STORAGE AND HANDLING**

- A. Deliver products in original, unopened, protective packaging. Attach legible manufacturer's labels indicating brand name, pattern, size and thickness.
- B. Store products in original protective packaging in a protected location with a temperature that is between 60 degrees F to 80 degrees F.
- C. Allow a minimum of 48 hours for acclimatation period or as recommended by the manufacturer, which ever is longer.
- D. Do not begin installation until sufficient materials are received to complete space.
- E. Handle at all times to prevent soiling and physical damage.

### **PART 2 - PRODUCTS**

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#### **2.01 PREAPPROVED MANUFACTURERS**

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include, but are not limited to, the following.
  - 1. Pergo Flooring. ( <https://www.pergoflooring.com/>)
    - a. Pergo Outlast + Vintage Tobacco Oak 10mm x 7.5-inches x 47.25-inches or Contract Task Order project manager or representative approved equal.
  - 2. The Contract Task Order project manager or representative may select
  - 3. Or City approved equal

#### **2.02 VAPOR RETARDERS OVER CONCRETE**

- A. Use vapor retarders that are compatible and recommended by the laminate flooring manufacturer.
- B. Acceptable vapor barriers/retarders over concrete include:
  - 1. A minimum 6 mil construction grade polyethylene film or other impermeable similar material.
  - 2. Recommended impermeable underlayment recommended by the laminate flooring manufacturer.
  - 3. A certified underlayment providing moisture protection and having a vapor transmission factor of less than 3 lbs./1000 sq. ft./24 hours.

### **PART 3 - EXECUTION**

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#### **3.01 COORDINATION**

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

## DIVISION 09 – FINISHES

### SECTION 09 62 00 – LAMINATE FLOORING

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#### 3.02 DEMOLITION/PREPARATION

- A. Remove existing subfloor ridges and bumps. Fill minor low spots, cracks, joints, and holes, less than 1/16-inch wide and depressions less than 1/8-inch deep with crack filler to achieve smooth, flat, hard surface.
- B. Repair wider cracks or defects as directed by the Contract Task Order project manager or representative.
- C. Remove grease, dirt, and other foreign substances and particles from substrate. Abrade surface, if needed, or otherwise prepare substrates for proper adhesion.
- D. Vacuum to clean substrate of dirt, dust and particles.
- E. F. A successful moisture test (12% moisture or less) must be completed before starting installation.
- F. G. Floor Flatness Tolerance: 3/16-inch over 10-foot, use floor leveler when exceeding tolerance.

#### 3.03 MOISTURE TESTING AND VAPOR RETARDERS

- A. Moisture Testing for Concrete Slabs:
  - 1. Concrete slab shall have been cured for a minimum of 60 days prior to any moisture testing.
  - 2. Quantitative Moisture Tests:
    - a. ASTM F1869 – Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor using Anhydrous Calcium Chloride.
      - i. This test method covers the quantitative determination of the rate of moisture vapor emitted from below-grade, on-grade, and above-grade (suspended) bare concrete floors.
    - b. ASTM F2170 – Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs using in Situ Probes.
      - i. This test method covers the quantitative determination of percent relative humidity in concrete slabs for field or laboratory tests.
    - c. ASTM F2659 – Standard Guide for Preliminary Evaluation of Comparative Moisture Condition of Concrete, Gypsum Cement and Other Floor Slabs and Screeds Using a Non-Destructive Electronic Moisture Meter.
      - i. This guide focuses on obtaining the comparative moisture condition within the upper 1" stratum in concrete, gypsum, anhydrite floor slabs and screeds for field tests. Due to the wide variation of material mixtures and additives used in floor slabs and screeds, this methodology may not be appropriate for all applications. See 1.2 through 1.8 and Section 11 of ASTM F2659. Where appropriate, or when specified, use further testing as outlined in Test Methods F1869, F2170 or F2420 before installing a resilient floor covering.
    - d. Relative Humidity Testing – ASTM F2170 (Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In Situ Probes).
      - i. Select test locations to provide information about moisture distribution across the entire concrete floor slab. For slabs on grade and below grade, include a test location within three feet of each exterior wall.



## DIVISION 09 – FINISHES

### SECTION 09 62 00 – LAMINATE FLOORING

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- ii. Perform three tests for the first 1,000 square feet and one test for every additional 1,000 square feet thereafter.
  - iii. At least 48 hours before test is placed, concrete floor slabs should be at the same temperature and humidity that is expected during service conditions.
  - iv. Use a rotary hammer-drill to drill holes in the concrete slab; 40% depth of slab is required for the holes when concrete is drying from one side and 20% when drying from both sides. Follow manufacturer's instructions provided with test kits.
  - v. Allow 72 hours to achieve moisture equilibrium within the hole before making relative humidity measurements. Follow manufacturer's instructions provided with test kits.
  - vi. ASTM F710 provides installation guidelines for acceptance of laminate flooring using relative humidity testing. Typical limits for wood and wood-based products are 75% relative humidity. When getting readings over 75%, you must use a proper vapor retarder, based on the flooring manufacturer's recommendations, or wait for further concrete curing.
- e. Calcium Chloride Test – ASTM F1869 (Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride).
- i. Select test locations to provide information about moisture distribution across the entire concrete floor slab.
  - ii. Perform three tests per 1,000 square feet of surface area. Add one additional test for each 1,000 square feet thereafter.
  - iii. At least 48 hours before test is placed, concrete floor slabs should be at the same temperature and humidity expected during service conditions.
  - iv. The actual test area shall be clean and free of all foreign substances. Use approved OSHA work practices for removal of all existing flooring materials and debris.
  - v. Grind a minimum area of 20 inches by 20 inches and let stand for a minimum period of 24 hours prior to setting test.
  - vi. Follow manufacturer's instructions for properly placing tests onto concrete.
  - vii. Tests are to be covered and left in place for 60 to 72 hours. Follow manufacturer's instructions for labeling and recording time and date of test.
  - viii. Send the test to a certified laboratory for results and documentation, or perform the measurements as per ASTM F1869.
  - ix. Always follow the flooring manufacturer's guidelines and specifications to determine when the concrete slab is ready for installation.
  - x. ASTM F710 provides installation guidelines for acceptance of laminate flooring using calcium chloride testing. Typical limit for installing laminate flooring is 3lbs/1000sf/24hr. When getting readings over 3lbs and up to 7lbs, you must use a vapor retarder. A reading over 7lbs may not be acceptable for laminate flooring installation.

## DIVISION 09 – FINISHES

### SECTION 09 62 00 – LAMINATE FLOORING

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#### 3.04 INSTALLATION

- A. Install in accordance with contract documents and manufacturer's instructions. Where in conflict, follow more stringent requirements.
- B. Rigid vinyl locking channels: Fasten to perimeters of wall areas to receive fabric
  - 1. Secure in place with manufacturer's approved heavy duty 1-inch diverging staples located at not more than 2-inches on center, or as instructed by manufacturer and approved by project manager or representative.
  - 2. Install should be plumb, straight and in proper alignment.
- C. Tackable (mineral board) sub-surface:
  - 1. Install tightly against edge of locking channel for tight continuous joints.
  - 2. Rabbet edges of board to fit over flange of locking channel and to fit tightly against gypsum board substrate.
  - 3. Install continuous, unbroken, and flush with top of locking channel framework and back side of fabric.
- D. Fabric
  - 1. Cut from roll to maintain sequence of pattern and direction of weave for sequential, uniform appearance.
  - 2. Install into locking jaws of rigid vinyl locking channels according to manufacturer's instructions.
  - 3. Stretch taut and smooth to be free of wrinkles and other defects.
  - 4. Install fabric grain plumb, aligned vertically and horizontally.

#### 3.05 CLEAN UP

- A. Clean exposed surfaces of acoustical wall panels. Trim and remove all loose threads.
- B. Remove surplus materials, rubbish and debris resulting from the installation and leave areas of installation in a neat, clean condition

#### 3.06 PROTECTION

- A. Cover fabric wall system with drop cloth or other approved protective covering if site conditions warrant.
- B. Replace any fabric installations damaged or soiled during course of construction at no expense to the City.

**END OF SECTION**

## DIVISION 09 – FINISHES

### SECTION 09 65 13 – RESILIENT BASE

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

A. Section 09 06 00 – Schedule for Finishes

##### 1.02 DESCRIPTION OF WORK

The extent and location of where to install resilient base is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of resilient base or other accessories, and as indicated or required for completed assembly, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.

##### 1.01 SUBMITTALS

A. Manufacturer's Literature and Data:

1. Description of each product.
2. Adhesives and primers indicating manufacturer's recommendation for each application.
3. Installation instructions.

B. Samples required only for products not preapproved per Part 2 of this specification.

##### 1.02 PROJECT CONDITIONS

A. Maintain products at temperatures between 60 degrees F and 80 degrees F for a minimum of 48 hours prior to and after installation.

B. Substrates shall be free of particles or substances that may impair the adhesion or installation.

C. Install products when building is permanently enclosed and when wet construction is completed, dried, and cured.

##### 1.03 DELIVERY, STORAGE AND HANDLING

A. Deliver products in original, unopened, protective packaging. Attach legible manufacturer's labels indicating name or brand, type, color, production run number, and manufacture date.

B. Store products in original protective packaging in a protected location with a temperature that is between 60 degrees F to 80 degrees F.

C. Before installation, return or dispose of products within distorted, damaged, or opened packaging.

D. Do not begin installation until sufficient materials are received to complete space.

## DIVISION 09 – FINISHES

### SECTION 09 65 13 – RESILIENT BASE

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- E. Handle at all times to prevent soiling and physical damage.

#### PART 2 - PRODUCTS

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##### 2.01 PREAPPROVED MANUFACTURERS AND PRODUCTS

- A. Rubber Base: Roppe “Vinyl Base” (<https://roppe.com/vinyl-wall-base/>)
  - 1. Length: 120-foot long roll
  - 2. Height: 4-inches or 6-inches per the drawings
  - 3. Gauge: 1/8-inch
  - 4. Color
    - a. Per the drawings;
    - b. or the General Facilities Construction color schedule
- B. Sealers, fillers, primers: Water resistant type, made by or as recommended by the manufacturer.
- C. Adhesives: Water resistant, contact bond adhesives as provide by or recommended by the manufacturer.
  - 1. Low volatile organic compound (VOC) emissions, water based or approved by the Contract Task Order project manager or representative.
- D. Other materials: Provide incidental and accessory materials, tools, methods and equipment required for completion of resilient covering installations.

#### PART 3 - EXECUTION

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##### 3.01 COORDINATION

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

##### 3.02 PREPARATION

- A. Examine and verify substrate suitability for product installation.
- B. Correct substrate deficiencies.
  - 1. Fill cracks, pits, and depressions with leveling compound.
  - 2. Remove protrusions; grind high spots.
  - 3. Apply leveling compound to achieve 1/8 inch in 10 feet maximum surface variation.
- C. Clean substrates. Remove contaminants capable of affecting subsequently installed product's performance.
  - 1. Mechanically clean concrete floor substrate according to ASTM D4259.
- D. Allow substrate to dry and cure.
- E. Perform flooring manufacturer’s recommended bond, substrate moisture content, and pH tests.

##### 3.03 INSTALLATION

- A. Install in accordance with contract documents, references, codes, and manufacturer's recommendations and instructions. Where these may be in conflict, the more stringent requirements govern

## **DIVISION 09 – FINISHES**

### **SECTION 09 65 13 – RESILIENT BASE**

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- B. Install rubber base at wall perimeters of rooms and spaces to receive resilient flooring materials and carpeting including kick spaces for fixed casework.
- C. Apply adhesive uniformly for full contact between resilient base and substrate. Resilient base shall bond tightly to the wall all floor surfaces.
- D. Set resilient base with hairline butted joints aligned along top edge.
- E. Install with no joints on a single wall less than 25 feet apart for rubber base.
- F. Miter rubber base internal corners and cut "V" into 2/3 thickness of base and fold at external corners. Pre-molded corner base is not approved.
- G. Scribe and fit to door frames and other interruptions.

#### **3.04 CLEAN UP**

- A. Remove excess adhesive before adhesive sets.
- B. After bases have set sufficiently, wash with neutral cleaner as recommended by manufacturer.
- C. Polish exposed resilient base to gloss sheen.

#### **3.05 PROTECTION**

- A. Prohibit traffic on resilient base 72 hours, minimum, after installation.
- B. Protect products from construction traffic and operations.
- C. Replace damaged products and re-clean at no cost to the City.
  - 1. Damaged Products include cut, gouged, scraped, torn, and unbonded products.

**END OF SECTION**

## **DIVISION 09 – FINISHES**

### **SECTION 09 66 00 – TERRAZZO FLOORING**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### **1.02 DESCRIPTION OF WORK**

This Work shall consist of furnishing all labor, material, and equipment for removal, repairs, and installation of various types, sizes and colors of terrazzo floors and grout, in accordance with the Drawings and these Specifications.

##### **1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. National Terrazzo and Mosaic Association (NTMA): Terrazzo Specifications and Design Guide

##### **1.04 QUALITY ASSURANCE**

- A. Comply with recommendations of National Terrazzo and Mosaic Association, Inc. (NTMA).
- B. Submit certification that materials conform to specified NTMA properties.
- C. Manufacturer has manufactured terrazzo tile as one of his principal products for a minimum of three (3) years. Submit list of not less than five (5) installations. List is to include name of project, and owner and location of project.
- D. The Contractor shall have a minimum of ten (10) years of experience of installing, repairing and maintaining all types of terrazzo flooring on a minimum of ten (10) different successful projects of similar size and type of flooring.
- E. If the Contractor employs a sub-contractor to perform the work, the subcontractor shall have a minimum of ten (10) years of experience of installing, repairing and maintaining all types of terrazzo flooring on a minimum of ten (10) different successful projects of similar size and type of flooring.
- F. The Contractor or sub-contractor shall provide a supervisor for the Work meeting the followings requirements:
  - 1. Responsible to direct this portion of the Work
  - 2. Present at all times during execution of this portion of Work
  - 3. Experienced with the type of materials being installed
  - 4. Skilled in the required methods for installation
- G. Provide skilled workers who are familiar with the Work involved and the techniques required for the proper execution of the Work.

##### **1.05 SUBMITTALS**

- A. Samples: Preliminary samples for approval:

## **DIVISION 09 – FINISHES**

### **SECTION 09 66 00 – TERRAZZO FLOORING**

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1. Each terrazzo formula size 12 x 12 inches not more than 1 inch thick.
  2. Divider strips: a. a. One (1), 6 inch length of each type and kind of divider strip as herein specified.
- B. Manufacturer's Literature and Data:
1. Cleaning and preservative solutions for terrazzo
  2. Terrazzo formula
  3. Nonslip aggregate
  4. Divider strips
  5. Adhesive for adhesively bond monolithic terrazzo
- C. Manufacturer's qualifications.
- D. Installer's qualifications.
- E. Manufacturer's warranty.

#### **1.06 PROJECT CONDITIONS**

Areas to receive terrazzo are to be maintained at a temperature above 50 degrees F 24 hours prior to the time terrazzo mixtures are placed and until completely cured.

#### **1.07 MOCKUP**

- A. Build a mockup of terrazzo including accessories for each color and pattern at locations as indicated on construction documents or as directed by the Contract Task Order project manager or representative.
- B. Minimum size of the mockup will be determined by the Contract Task Order project manager or representative.
- C. Approved mockup may become part of the completed Project, as accepted by the City if undisturbed at time of Substantial Completion

#### **1.08 DELIVERY, STORAGE AND HANDLING**

- A. Materials are to be delivered in the manufacturer's unopened containers marked with the brand name. Materials are to be delivered, handled, and stored in accordance with manufacturer's instructions in a manner that will prevent deterioration and contamination.

#### **1.09 WARRANTY**

- A. The Contractor shall warranty, for a period of 180 calendar days, all work, materials, and labor provided as part of this Contract Task Order. The warranty period shall commence upon acceptance of the Work by the City.

### **PART 2 - PRODUCTS**

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#### **2.01 PORTLAND CEMENT TERRAZZO SYSTEM**

- A. Provide a Portland Cement Terrazzo System as specified in the Contract Documents.
- B. Due to the individual nature of the mixes and construction techniques used to place terrazzo in the floor grid, the mix designs must be confirmed with mock-up samples in the field at the location of construction. All mock-up samples must be polished to match the existing floor finish as well

## **DIVISION 09 – FINISHES**

### **SECTION 09 66 00 – TERRAZZO FLOORING**

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#### **2.02 PORTLAND CEMENT**

Provide Portland cement conforming to ASTM C150/C150M, Type I of colors required to match NTMA Info Guide color plate indicated on the Contract Documents.

#### **2.03 SAND**

Conform to ASTM C33/C33M for fine aggregate.

#### **2.04 MARBLE GRANULES**

A. Marble chips are to be of domestic origin of sizes and colors required to match NTMA Info Guide color plate indicated in the Contract Documents. Provide marble chips with an abrasive hardness of not less than 10 when tested in accordance with ASTM C241/C241M; containing no deleterious or foreign matter; and having a dust content less than one (1) percent by weight.

#### **2.05 DECORATIVE AGGREGATES**

A. Provide decorative aggregate material glass, mother-of-pearl of sizes, kind, and color as indicated in the Contract Documents and shall be compatible with the portland cement terrazzo flooring material.

B. Size shall conform with NTMA gradation standards. Aggregate shall not contain any deleterious or foreign matter. Dust shall be less than one (1) percent by weight. Aggregate shall be maintained in a perfectly clean and dry state throughout tenure of work.

#### **2.06 MATRIX PIGMENTS**

Pure mineral or synthetic pigments, alkali resistant, durable under exposure to sunlight, and compatible with terrazzo matrix.

#### **2.07 NONSLIP AGGREGATE**

A. Aluminum oxide or carborundum particles, uniformly graded from 0.8 mm to 6 mm (1/32 to 1/4 inch) and black or dark color.

B. Or as specified in the Contract Documents

#### **2.08 RESINOUS TERRAZZO**

A. Polyester Resin Matrix: Two-component polyester resin and hardener, certified as complying with NTMA "Guide Specifications for Polyester Terrazzo".

B. Epoxy Resin Matrix: Thermosetting, amine-cured epoxy resin and hardener, certified as complying with NTMA "Guide Specifications for Epoxy Terrazzo".

#### **2.09 METAL STRIPS**

A. Provide metal strips in accordance with NTMA Design Guide.

B. Base Divider Strips: One (1) piece, 1/8 inch thick, shaped to profile of base from top edges to toe edge of base.

C. Floor Divider Strips (Strips): as required per the Contract Documents.

D. Floor Divider Strips (T-Strips): as required per the Contract Documents.

E. Floor Divider Strips (Special): as required per the Contract Documents.

F. Floor Divider Strips (Adhesively Bonded Monolithic Terrazzo): 16 Brown & Sharpe (B&S) gauge, folded, T-type formed for double expansion 5/8 inch deep.



## **DIVISION 09 – FINISHES**

### **SECTION 09 66 00 – TERRAZZO FLOORING**

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#### **2.10 ADHESIVE FOR MONOLITHIC TERRAZZO**

Liquid polymer formulation, modified with epoxy resin, mixed in accordance with manufacturer's recommendations. Adhesive is to resist embrittlement, remain flexible and be resistant to impact.

#### **2.11 CLEANING SOLUTION**

Use a neutral chemical cleaner, produced by manufacturer of preservative solution that will not change color of or damage terrazzo.

#### **2.12 SEALER**

Provide sealer with a pH factor between 7 and 10 and that is a penetrating type specially prepared for the terrazzo trade. The sealer is not permitted to discolor or amber the terrazzo. Sealer is required to produce a slip resistant surface. (Not less than 0.5 when tested in accordance with ASTM D 2047.)

#### **2.13 TERRAZZO PROPORTIONS**

- A. Underbed: Comply with NTMA's Design Guide for terrazzo system indicated for component proportions and mixing.
- B. Terrazzo Topping: Comply with NTMA's Design Guide for terrazzo system indicated for matrix and aggregate proportions and mixing. Mixing color as indicated in the Contract Documents.

#### **2.14 VOC REQUIREMENTS**

The contractor shall use on the job site only chemicals and cleaning products that do not exceed the national Volatile Organic Chemical (VOC) limitations rule(s) published by the U.S. Environmental Protection Agency (EPA).

### **PART 3 - EXECUTION**

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#### **3.01 COORDINATION**

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

#### **3.02 INSTALLING METAL STRIPS**

- A. Set strips with close, butt joints, true and square; hold in place with cement mortar, except where specified to be held with adhesive.
- B. Provide floor divider strips between cast-in-place terrazzo base and floors, and to divide floors into approximately 6 feet squares, or pattern indicated in Contract Documents.
- C. Provide floor divider strips where terrazzo abuts cement or ceramic tile. Where joints occur at door openings, set strips directly under center of doors.
- D. Provide special floor divider strips where cast-in-place terrazzo abuts resilient flooring.
- E. Set base divider strips plumb for cast-in-place base. Anchor and space them not over 5 feet on centers, or to align with floor divider strips. Set divider strips symmetrically at doors other openings and wall breaks and in line with field divider strips of floor.
- F. Use floor divider, for adhesive bonded monolithic terrazzo floors, located as indicated in Contract Documents or as otherwise required by the manufacturer. Set strips with same adhesive used for bonding terrazzo topping, and shim where necessary to

## DIVISION 09 – FINISHES

### SECTION 09 66 00 – TERRAZZO FLOORING

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produce a straight and level floor. Tightly butt strips at intersection, and install 24 hours prior to floor installation.

#### 3.03 INSTALLING TERRAZZO FLOORS

##### A. Bonded to Concrete Terrazzo:

1. Provide bonded to concrete terrazzo consisting of an underbed and terrazzo topping on a rough concrete slab.
2. Finish terrazzo floors a minimum of 1-3/4 inches above rough concrete slab.
3. Clean surfaces of concrete slabs to receive terrazzo to remove plaster, oil, grease, and foreign matter. Saturate slabs with water, remove excess water and then, immediately before placing underbed, slush and broom concrete with neat cement.
4. Provide underbed that is a minimum of 1-1/8 inches thick. Wet cement-sand mix to proper consistency and spread evenly over surfaces to receive terrazzo.
5. Provide shrinkage reinforcement of 2 inch wire mesh (16 gauge).
6. Finish underbed to true, level surface, and prepare and condition it to receive terrazzo topping and ensure permanent bond.

##### B. Monolithic Terrazzo: Provide monolithic terrazzo consisting of terrazzo topping placed integrally on prepared concrete slab.

1. Broom clean concrete slabs to receive terrazzo.
2. Before placing of terrazzo topping, saturate slabs with water until all absorption by concrete has stopped.
3. Remove excess water.
3. Place terrazzo over prepared slab in one continuous operation.

##### C. Adhesively Bonded Monolithic Terrazzo: Provide adhesively bonded monolithic terrazzo consisting of terrazzo topping adhesively applied to concrete slab.

1. Clean concrete slabs so that they are free of dirt, dust, oil, paint and other foreign materials.
2. Damp mop surface before applying adhesive.
3. On porous concrete slabs, apply a prime coat of same adhesive used for bonding terrazzo topping, 24 hours in advance of application of bonding coat.
4. Install specified divider strips.
5. Apply adhesive evenly to concrete slabs to approximately 10 mils thickness.
6. When spray or broom application is used reduce viscosity of adhesive with solvents as recommended by adhesive manufacturer. Allow minimum of 1/2 hour lapse before applying bond coat.
7. Immediately broadcast marble chips over adhesive film and continue with placing terrazzo topping in one continuous operation.

##### D. D. Topping:

1. Spread topping to provide finished thickness of 3/8 inch, after grinding on vertical surfaces, and 5/8 inch on horizontal surfaces.
2. Provide topping in uniform composition and use same marble granules that appear on surface for its entire thickness.

## **DIVISION 09 – FINISHES**

### **SECTION 09 66 00 – TERRAZZO FLOORING**

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3. Trowel and pack base to proper form, and roll floor and thresholds with heavy roller so that terrazzo will be dense with even surface showing at least 70 percent marble granules.
4. Lay terrazzo topping full above strips to permit grinding terrazzo down to finish floor level.

#### **3.04 INSTALLING BASES**

- A. Provide base 5-1/2 inches high, and with 1 inch radius cove at bottom. Make external corners of base conform to contour of wall finish above. Provide square toe at corners of floor field.
- B. Round top of projecting base to 1/4 inch radius.
- C. At openings, having metal door frames, return base on itself, with toe in line with back edge of metal frame.

#### **3.05 INSTALLING TERRAZZO CONCRETE STAIRS**

- A. Divide landings and intermediate platforms into approximately 12 inch squares with 1/8 inch thick top floor divider strips. Stair treads, landings, and platforms are to be finished 1-1/2 inches above rough concrete slab unless otherwise indicated in Contract Documents.
- B. Nonslip Aggregate: Sprinkle 1/4 pound of nonslip aggregate to each 1 square foot of terrazzo surface for stair treads, platforms, and floors within stair wells.
  1. At stair treads and nosing areas of stair platforms, and floor landings provide tile nosing inserts or nonslip filled-grooves in addition to nonslip aggregate.
- C. Nosings: In addition to nonslip abrasive, install nosing edge on terrazzo treads, platforms and landings. Nosing are to be nonslip inserts extending to within 4 inches of ends of treads and landings; bond them to terrazzo.
  1. In lieu of inserts, provide three (3) grooves, 1/4 inch wide and not less than 3/8 inch deep, approximately 1-1/4 inches on centers, filled flush with nonslip aggregate mixed with suitable binder which will bond with terrazzo.
  2. Start grooves at not less than 3/4 inch from nosing edges and extend them continuously to within 4 inches of ends of treads and landings.

#### **3.06 CURING**

- A. Cure terrazzo topping at least six (6) days before grinding and until it sets sufficiently hard to permit coarse stone grinding without dislodging surface aggregate.
  1. Curing time for terrazzo base may be reduced to four (4) days, subject to approval of the City.
  2. During curing period, cover terrazzo with either waterproof paper, cotton mats, or 1 inch of clean wet sand. Lap and secure against displacement of joints in paper or mats.
  3. Keep sand (if used) wet by sprinkling with clean water at intervals of not more than eight (8) hours.
  4. Do final grinding or rubbing of terrazzo before finish coat of plaster or other connecting wall finish is applied.

## **DIVISION 09 – FINISHES**

### **SECTION 09 66 00 – TERRAZZO FLOORING**

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#### **3.07 FINISHING**

- A. Finishing is to be in accordance with NTMA Design Guide for terrazzo and accessory installation.
- B. Rough Grinding: After topping has cured, machine grind terrazzo using the wet method, to a true even surface using No. 24 or finer grit followed by No. 80 grit or finer grit stone.
  - 1. Grind terrazzo surfaces with electric grinding machines.
  - 2. Where impossible to use machines, hand rub surfaces.
  - 3. Dry grinding of terrazzo is prohibited.
- C. Grouting: After rough grinding, wash and rinse floor with clean water.
  - 1. After removing excess rinse water, grout floor using identical portland cement, color and pigments as used in the topping taking care to fill voids.
  - 2. After the grout has attained its initial set, cure surface for a minimum of 72 hours.
- D. Fine Grinding: After grout has cured, fine grind terrazzo to remove scratches, and produce true surface of uniform color and texture, without irregularities.
  - 1. When tested with steel straight edge, terrazzo base surfaces are to not show wave exceeding 1/16 inch between divider strips.
  - 2. When tested with steel straight edge 3 feet long, floor surfaces are to not show wave exceeding 1/32 inch.
  - 3. Upon completion of grinding, the terrazzo flooring is to show a minimum of 70 percent of marble chips.
  - 4. Protect adjacent walls, floors, and other connecting work from rubbing stones and from splashing, while grinding is in progress.

#### **3.08 REPAIR**

Cut out and replace terrazzo areas that evidence lack of bond with substrate or underbed, including areas that emit a “hollow” sound if tapped. Cut out terrazzo areas in panels defined by strips and replace to match adjacent terrazzo, or repair panels according to NTMA’s written recommendations, or as approved by the City.

#### **3.09 CLEANING**

- A. After final grinding, clean terrazzo and condition to counteract efflorescence. Apply mixture in accordance with manufacturer’s instructions.

#### **3.10 SEALING**

After surfaces are dry, wash and rinse terrazzo and (except on terrazzo surfaces containing nonslip aggregate) apply coat of sealer in accordance with the manufacturer’s instructions. Buff terrazzo surfaces with a weighted polishing brush or electric buffing machine.

- A. Clean glass and adjacent surfaces.

#### **3.11 PROTECTION**

- A. The contractor shall be responsible for the protection of all wall surfaces from the re-grinding process and any subsequent water damage.

## **DIVISION 09 – FINISHES**

### **SECTION 09 66 00 – TERRAZZO FLOORING**

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- B. The contractor shall take measures to prevent water/slurry from going into the cracks of the expansion joints and leaking down to the floor/area below.
- C. The contractor shall use wet floor signs and adequate barricades to provide sufficient notice of potential safety hazards prior to, during, and after the performance of the services.
- D. The contractor shall notify Facilities and adhere to dust mitigation and containment methods. The contractor shall, at all times, secure the work area (i.e. barricades, barriers, etc.) to ensure the safety of the public, employees, facilities.
- E. Adhesive walk off mats shall be placed inside and outside the construction barricade.

**END OF SECTION**

## DIVISION 09 – FINISHES

### SECTION 09 68 00 – CARPETING

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

- A. 09 06 00 – Schedule for Finishes
- B. 09 65 13 – Resilient Base and Accessories

##### 1.02 DESCRIPTION OF WORK

The extent and location of where to install carpet is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of carpet tile, secondary backing and accessories, as indicated or required for complete and finished installation, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. The Carpet and Rug Institute (CRI), Carpet Installation Standard
- C. U.S. Consumer Product and Safety Commission (CPSC), 16 CFR 1630, Surface Flammability of Carpets and Rugs

##### 1.01 QUALITY ASSURANCE

. Installer qualifications and the following:

1. Firm and supervising employee: Not less than five (5) years continuous experience installing commercial carpeting of type, quantity, scope and installation methods similar to work of this section.
  2. Firm: Approved as an installer by carpet manufacturer, prior to submitting bid, or approved by project manager or representative.
- A. General terminology and information standard: Refer to current edition of "Carpet Specifier's Handbook" by The Carpet and Rug Institute, for definitions of terminology not otherwise defined herein, and for general recommendations and information.
  - B. Flame and smoke resistance standards: Comply with following standards or comparable standards as approved.
    1. Pill test: Pass test for flammability, ASTM D2859 or DOC FF1-70.
    2. Floor radiant panel test (FRPT): Critical radiant flux of 0.45 watts/cm<sup>2</sup> (Class 1) or better, for burning under varying radiant energy levels, ASTM E648.
    3. NBS smoke density chamber test: Less than 450 for density of smoke generated in radiant heat chamber with and without flame, ASTM E 662.
    4. Static resistance: 3.5 Kv resistance for 20-percent relative humidity at 70° F (21° C), AATCC 134-75 (Neolite step method).

## **DIVISION 09 – FINISHES**

### **SECTION 09 68 00 – CARPETING**

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#### **1.02 SUBMITTALS**

- A. Product Data:
  - 1. Manufacturer's catalog data and printed documentation stating physical characteristics, durability, resistance to fading and flame resistance characteristics for each type of carpet material and installation accessory.
  - 2. Manufacturer's printed installation instructions for the carpet, including preparation of installation substrate, seaming techniques and recommended adhesives and tapes.
- B. Samples:
  - 1. Carpet: "Production Quality" samples 12 x 12 inches of carpets, showing quality, pattern and color specified in Section 09 06 00 - Schedule for Finishes.
  - 2. Floor Edge Strip (Molding): 6 inches long of each color and type specified.
  - 3. Base Edge Strip (Molding): 6 inches long of each color specified.
- C. Shop Drawings: Installers layout plan showing seams and cuts for sheet carpet and carpet module to include the following details:
  - 1. Indicate pile directions, locations and methods of joining seams, and locations and types of edge strips.
  - 2. Indicate columns, doorways, enclosing walls/partitions, built-in cabinets and locations where cut-outs are required in carpet.
  - 3. Type of subfloor under tiles.
  - 4. Transition details to other flooring materials.
- D. Certification: Submit manufacturer's certification stating that carpet materials furnished comply with specified requirements.
  - 1. Include listing of mill register numbers for carpet furnished.
  - 2. Include supporting certified laboratory test data indicating that carpet meets or exceeds specified test requirements.
- E. Maintenance Data: Carpet manufacturer's maintenance instructions describing recommended type of cleaning equipment and material, spotting and cleaning methods and cleaning cycles.
- F. Installer's Qualifications.

#### **1.03 PROJECT CONDITIONS**

- A. Maintain areas in which carpeting is to be installed at a temperature between 65 - 95 degrees F with a maximum relative humidity of 65 percent for two (2) days prior to installation, during installation and for three (3) days after installation.
- B. Minimum Substrate Surface Temperature: 65 degrees F at time of installation.
- C. Three (3) days after installation, maintain minimum temperature of 60 degrees F for the duration of the contract.

#### **1.04 DELIVERY, STORAGE AND HANDLING**

- A. Deliver carpet in manufacturer's original wrappings and packages clearly labeled with manufacturer's brand name, size, dye lot number and related information. Transport carpet to job site in a manner that prevents damage and distortion that might render it unusable. When bending or folding is unavoidable for delivery purposes, unfold carpet and lay flat immediately.

## DIVISION 09 – FINISHES

### SECTION 09 68 00 – CARPETING

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- B. Deliver adhesives in containers clearly labeled with manufacturer's brand name, number, installation instructions, safety instructions and flash points.
- C. Store in a clean, dry, well-ventilated area, protected from damage and soiling. Before installation, acclimate carpet to the atmospheric conditions of the areas in which it will be installed for 2 days prior to installation.

## PART 2 - PRODUCTS

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### 2.01 PREAPPROVED MANUFACTURERS AND PRODUCTS

- A. Milliken Carpet Tiles: ([www.milliken.com](http://www.milliken.com))
  - 1. Nordic Stories - Tectonic, 19.7 inch x 19.7 inch modular with PVC-Free WellBAC Comfort Cushion backing.
  - 2. Color
    - a. Per the drawings;
    - b. General Facilities Construction color schedule see Section 09 06 00 – Schedule for Finishes;
    - c. Or per the Contract Task Order project manager or representative at no cost to the City

### 2.02 MATERIALS

- A. Carpet marking: Mark each carpet tile according to style, color, pattern, pile, direction, and dye lot.
  - 1. Install carpet from same dye lot within each continuous carpet area. Remove and replace carpet within continuous areas differing in appearance due to manufacturing process.
- B. Installation adhesive: Water resistant, non-staining type and as instructed by carpet manufacturer. Comply with flammability requirements for installed carpet.
  - 1. Carpet tile: Milliken "modular carpet adhesive", releasable type, allowing removal of carpet at any time without damage.
- C. Carpet edge guards/reducer strips: Extruded or molded rubber with 2-inch wide anchorage flange, and as required for installation.
  - 1. Flexco (<https://flexcofloors.com/vinyl-accessories/>)
  - 2. Mannington Commercial (<https://www.manningtoncommercial.com/>)
  - 3. Or City approved equivalent
- D. Seaming cement: Henry's 246 seam sealer, or as instructed by carpet manufacturer for taping seams and buttering cut edges at backing to form secure seams and prevent pile loss at seams. (<https://www.wwhenry.com/>)
- E. Miscellaneous materials: In accordance with carpet manufacturer's instructions and as required for complete and finished installation.

## PART 3 - EXECUTION

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### 3.01 COORDINATION

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.



## DIVISION 09 – FINISHES

### SECTION 09 68 00 – CARPETING

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#### 3.02 PREPARATION

- . Examine and verify substrate suitability for product installation.
- A. Correct substrate deficiencies.
  - 1. Fill cracks, pits, and depressions with leveling compound.
  - 2. Remove protrusions; grind high spots.
  - 3. Apply leveling compound to achieve 1/8 inch in 10 feet maximum surface variation.
- B. Clean substrates. Remove contaminants capable of affecting subsequently installed product's performance.
  - 1. Mechanically clean concrete floor substrate according to ASTM D4259.
- C. Allow substrate to dry and cure.
- D. Perform flooring manufacturer's recommended bond, substrate moisture content, and pH tests.

#### 3.03 INSTALLATION

- A. Perform all work by manufacturer's approved installers. Conduct installation in accordance with the manufacturer's printed instructions and CRI CIS.
- B. Follow ventilation, personal protection, and other safety precautions recommended by the adhesive manufacturer. Continue ventilation during installation and for at least three (3) days following installation.
- C. Maintain uniformity of carpet direction and lay of pile.
- D. Extend carpet to cover complete flooring areas:
  - 1. Under open-bottomed obstructions, removable flanges, and furnishings.
  - 2. Into alcoves and closets of each space.
- E. Bind unconcealed edges with protective edge guards or overlapping flanges. Install edging at carpet terminations and anchor edging to substrate.
- F. Butt edges together to produce tightest joint without distortion.
- G. Carpet tiles: Maximum 1/4-inch in eleven (11) carpet tiles allowable.
- H. Seaming layout and installation: Place seams according to approved layout and the following. Maintain straight seams, running true with the lines of the building, inconspicuous to visual inspection. Lay out to enable future replacement, especially in large open areas and traffic paths. Do not seam weft to warp.
  - 1. Carpet Tile
    - a. Install in modular layout to coordinate with cut-outs for structural columns and for electrical floor box access points. Carpet tiles shall be installed in all locations specifying carpet, except as specifically indicated on Project finish Schedule or as directed by Project Lead.
    - b. Lay out to minimize cut tiles narrower than 9-inches at permanent partitions.
- I. Carpet tile - glue down installation: Fully adhere carpet and carpet tile to substrate unless otherwise indicated or directed. Comply with manufacturer's instructions and recommendations for glue-down installation of carpet.
  - 1. Layout and Fitting
    - a. Fit sections of carpet into each space prior to application of adhesive.

## **DIVISION 09 – FINISHES**

### **SECTION 09 68 00 – CARPETING**

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- b. Trim edges and butter cuts with seaming cement.
- c. Maintain direction of pattern and texture, including lay of pile.
- 2. Adhesive
  - a. Apply uniformly to substrate using a notched trowel, in accordance with manufacturer's instructions, to achieve 100-percent bond.
  - b. Remove any adhesive promptly from face of carpet.
  - c. Lightly roll carpet for uniform adhesion, and for flat and uniform appearance.
- 3. Seaming Cement
  - a. Apply to edges as recommended by carpet manufacturer.
  - b. Promptly remove any adhesive from carpet face.
- 4. Seams and Edges
  - a. Butt tightly together to form seams without gaps.
  - b. Roll carpet after seaming with 100 lbs. roller to eliminate air pockets and uniformly bond adhesive.
- 5. Adjust carpet, trim and secure edges
- 6. Re-roll carpet following day of installation for complete transfer of adhesive.
- J. Cut openings in carpet where required for installing equipment, pipes, outlets, and penetrations. Bind or seal cut edge of sheet carpet. Use additional adhesive to secure carpets around pipes and other vertical projections.
- K. Complete other work which would damage the carpet prior to installation of carpet.
- L. Do not permit traffic or movement of furniture or equipment in carpeted area for 24 hours after installation.

#### **3.04 CLEAN UP**

- A. Once a carpet installation is complete, clean up scrap materials and debris, and vacuum the area, using manufacturer-approved equipment. Inspect seams carefully for evenness and protruding backing yarns, and inspect the perimeter of the installation for an acceptable finished appearance.

#### **3.05 PROTECTION**

- A. Protect installed carpet if furniture is being moved, by laying plywood, fiberboard or porous non-staining sheeting material for minimum time practical. Based on manufacturer guidelines, protect carpet from rolling or foot traffic. Protect against other materials or renovation or construction activities, including dust, debris, paint, contractor traffic, until it is ready for its final use.
- B. Do not move furniture or equipment on unprotected carpeted surfaces.
- C. Just before final acceptance of work, remove protection and vacuum carpet clean.

**END OF SECTION**

## DIVISION 09 – FINISHES

### SECTION 09 77 00 – SPECIAL WALL SURFACING

---

#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of special wall surfacing is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of tackable mineral board subsurface, concealed vinyl locking channels, and fabric stretched and locked in place with wrapped edges, and as indicated or required for completed assembly, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.

##### 1.01 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Regularly manufactures specified products.
2. Manufactured specified products with satisfactory service on five similar installations for minimum five years.

B. Installer:

1. Authorized installation dealer, licensed by the manufacturer.
2. Member of the Wall Upholstery Guild of America (WUGA) and certified as such.

##### 1.02 SUBMITTALS

A. Manufacturer's Literature and Data:

1. Description of each product.
2. Installation instructions.
3. Manufacturers dealer certification
4. Warranty.

B. Samples:

1. Rigid vinyl locking channels for mechanical attachment of stretched fabric to walls.
2. Tackable mineral board, for approval.

C. Design data: Submit complete details showing compliance with seismic bracing requirements of the Washington State Building Code, and City of Tacoma Building Code. Design will be reviewed by structural project manager or representative licensed in Washington State, which will be included in the Contract Task Order.

## DIVISION 09 – FINISHES

### SECTION 09 77 00 – SPECIAL WALL SURFACING

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#### 1.03 REGULATORY REQUIREMENTS

- A. All products shall comply with the City of Tacoma codes, ordinances, and other applicable regulatory requirements.
- B. Fire hazard classification: Class A flame spread rating (0-25) when tested in accordance with ASTM E84 for system, including components.

#### 1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver products in original, unopened, protective packaging. Attach legible manufacturer's labels indicating brand name, pattern, size and thickness.
- B. Store products in original protective packaging in safe, protected location.
- C. Do not begin installation until sufficient materials are received to complete space.
- D. Handle at all times to prevent soiling and physical damage.

### PART 2 - PRODUCTS

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#### 2.01 PREAPPROVED MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the work include, but are not limited to, the following.
  - 1. FabriTRAK Systems Inc. (<https://www.fabritrak.com/>)
  - 2. SNAP-Tex Acoustical Fabric Mounting System ( <https://snaptex.com/index.asp>)
  - 3. Or City approved equal
- B. Manufacturers: All materials shall be obtained from one (1) source for each type of Work to be installed.

#### 2.02 SYSTEM COMPONENTS

- A. Rigid Vinyl Locking Channels: One (1) piece, fire rated, radius edge, rigid vinyl locking fabric channels for fabric framework. 1-1/2-inch wide by 3/8-inch deep or 1/2-inch deep by 0.055-inch wall thickness.
- B. Tackable Sub-Surface: Manufacturer's standard 3/8-inch or 1/2-inch thick (same thickness as locking channels), tackable, fire retardant, mineral fiber panel, as approved.
- C. Panel Fabric: Maharam, vertical surface, 206-624,2330 (Seattle), Phone: 800-645-3943 (Wall Covering Division of Maharam), 100-percent Marquesa® Lana Polyolefin
  - 1. Fabric: Unbacked Tek-Wall
  - 2. Design: 1000
  - 3. Color: As specified by Contract Task Order project manager or facilities planner.

### PART 3 - EXECUTION

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#### 3.01 COORDINATION

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

## **DIVISION 09 – FINISHES**

### **SECTION 09 77 00 – SPECIAL WALL SURFACING**

---

#### **3.02 PREPARATION**

- A. Contractor shall field verify the extents and adequacy of the acoustical system, and verify the exact layout prior to procurement.
- B. Examine and verify substrate suitability for product installation.
- C. Do not install acoustical wall panel fabric in any space until work generating moisture or dust is completed and dry.
  - 1. Painting completed and dry.
  - 2. Wall base, floor coverings, ceilings, doors and frames installed.
  - 3. Ambient temperature and humidity continuously maintained at temperature range between 60° F - 80° F and not more than 80-percent relative humidity
- D. Coordinate the Work of this section with other trades prior to installation.
- E. Protect existing construction and completed work from damage.

#### **3.03 INSTALLATION**

- A. Install in accordance with contract documents and manufacturer's instructions. Where in conflict, follow more stringent requirements.
- B. Rigid vinyl locking channels: Fasten to perimeters of wall areas to receive fabric
  - 1. Secure in place with manufacturer's approved heavy duty 1-inch diverging staples located at not more than 2-inches on center, or as instructed by manufacturer and approved by project manager or representative.
  - 2. Install should be plumb, straight and in proper alignment.
- C. Tackable (mineral board) sub-surface:
  - 1. Install tightly against edge of locking channel for tight continuous joints.
  - 2. Rabbet edges of board to fit over flange of locking channel and to fit tightly against gypsum board substrate.
  - 3. Install continuous, unbroken, and flush with top of locking channel framework and back side of fabric.
- D. Fabric
  - 1. Cut from roll to maintain sequence of pattern and direction of weave for sequential, uniform appearance.
  - 2. Install into locking jaws of rigid vinyl locking channels according to manufacturer's instructions.
  - 3. Stretch taut and smooth to be free of wrinkles and other defects.
  - 4. Install fabric grain plumb, aligned vertically and horizontally.

#### **3.04 CLEAN UP**

- A. Clean exposed surfaces of acoustical wall panels. Trim and remove all loose threads.
- B. Remove surplus materials, rubbish and debris resulting from the installation and leave areas of installation in a neat, clean condition

**DIVISION 09 – FINISHES**

**SECTION 09 77 00 – SPECIAL WALL SURFACING**

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**3.05 PROTECTION**

- A. Cover fabric wall system with drop cloth or other approved protective covering if site conditions warrant.
- B. Replace any fabric installations damaged or soiled during course of construction at no expense to the City.

**END OF SECTION**

## DIVISION 09 – FINISHES

### SECTION 09 81 00 – ACOUSTIC INSULATION

---

#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of where to install acoustic insulation is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of acoustic insulation in interior walls to achieve fire resistance and acoustical performance (STC/NRC) values, as indicated or required for complete and finished installation, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. Underwriter's Laboratory (UL), 723-10, Test for Surface Burning Characteristics of Building Materials

##### 1.01 SUBMITTALS

- A. Product Data:
  - 1. Manufacturer's catalog data and printed documentation stating physical characteristics, acoustical performance, and flame resistance characteristics.
  - 2. Manufacturer's printed installation instructions for the carpet, including preparation of installation substrate, seaming techniques and recommended adhesives and tapes.

##### 1.02 DELIVERY, STORAGE AND HANDLING

- A. Deliver carpet in manufacturer's original wrappings and packages clearly labeled with manufacturer's brand name, and related information. Transport to job site in a manner that prevents damage that might render it unusable.
- B. Store in a clean, dry, well-ventilated area, protected from damage and soiling.
- C. Handle material in a manner that will prevent tearing, or damage.

#### PART 2 - PRODUCTS

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##### 2.01 PREAPPROVED MANUFACTURERS AND PRODUCTS

- A. Rockwool: (<https://www.rockwool.com/north-america/>)
  - 1. Safe'n'Sound
- B. Owens Corning: (<https://www.owenscorning.com/en-us>)
  - 1. Eco Touch® PINK® Fiberglass

## **DIVISION 09 – FINISHES**

### **SECTION 09 81 00 – ACOUSTIC INSULATION**

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#### **2.02 MATERIALS**

- A. Fire Resistance: ASTM E84; as component of 1 hour rated.
  - 1. Flame Spread Rating: 25 maximum.
  - 2. Smoke Developed Rating: 50 maximum.
- B. Miscellaneous: Provide miscellaneous and accessory materials, methods, tools, and equipment required for completion of insulation work.
- C. Sealing tape: Ideal, No. 375 or as recommended by the manufacturer.

#### **PART 3 - EXECUTION**

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##### **3.01 COORDINATION**

- A. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.
- B. Notify the City's project manager or representative in writing of conditions detrimental to the proper and timely completion of the work.
- C. Do not begin work until all unsatisfactory conditions are resolved. Beginning work constitutes acceptance of site conditions and responsibility for defective installation caused by prior observable conditions.

##### **3.02 PREPARATION**

- A. Verify that adjacent materials are secure, properly spaced, dry, and ready to receive installation.
- B. Verify that mechanical and electrical services within spaces to be insulated have been installed and tested.
- C. Furnish acoustical insulation to hollow metal installer for installation in hollow metal frames in acoustical partitions.

##### **3.03 INSTALLATION**

- A. Install insulation in stud cavities in accordance with contract documents, references, codes, and manufacturer's instructions. Where these may be in conflict, the more stringent requirements govern.
- B. Thermal insulation used for sound (acoustical) insulation: Fill all spaces indicated. Install continuously. Include spaces between framing members, without gaps or voids, at walls and ceilings and as indicated.
  - 1. Completely fill small spaces, leaving no uninsulated spaces and assuring continuity of insulating layer.
  - 2. Install continuously around door frames and other openings or voids. Wrap electrical outlets, switches, and other wall penetrations. Seal all joints.
  - 3. Friction fit unfaced insulation to leave no voids.
  - 4. Include around offices, and conference rooms whether indicated or not. Install from floor surface to bottom side of ceiling structure above.
  - 5. Trim insulation neatly to fit spaces. Use insulation materials free of damage.
- C. Sealant:



## **DIVISION 09 – FINISHES**

### **SECTION 09 81 00 – ACOUSTIC INSULATION**

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1. Install acoustical sealant continuously around perimeter of all acoustically insulated partitions; one continuous bead at each side of framing member interface with substrate.
2. Where double layer of gypsum board is indicated, provide sealant at butt joints between boards, including corner joints, and additional bead at perimeter of base layer prior to installation of finish layer.
3. Except for penetrations in fire rated construction to receive firestopping or fire rated construction joint assemblies, seal all penetrations through acoustical assemblies, including cutouts for lighting fixtures, cabinets, pipes and plumbing, HVAC ducts, and electrical boxes.

#### **3.04 CLEAN UP**

- A. Once a installation is complete, clean up scrap materials and debris.

#### **3.05 PROTECTION**

- A. Protect installed insulation from damage due to weather and physical abuse until protected by permanent construction.

**END OF SECTION**

## DIVISION 09 – FINISHES

### SECTION 09 91 00 – PAINTING

---

#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

A. 09 06 00 – Schedule for Finishes

##### 1.02 DESCRIPTION OF WORK

A. Work of this Section includes all labor, materials, equipment, and services necessary to complete the painting and finishing as shown on the drawings and/or specified herein, including, but not limited to, the following:

1. Preparation and painting or finishing of all existing and new interior surfaces as shown and scheduled on the drawings, except as specifically excluded or scheduled not to be painted.
2. Preparation and painting of structural, mechanical, and electrical work in rooms and spaces, scheduled for painting.
3. Prime coats which may be applied in shop under other sections.
4. Prime painting unprimed surfaces to be painted under this Section.
5. Painting items furnished with a prime coat of paint, including touching up of or repairing of abraded, damaged or rusted prime coats applied by others.
6. Painting pipes, pipe coverings, conduit, ducts, insulation, hangers, supports and other mechanical and electrical items and equipment exposed to view.
7. Painting surfaces above, behind or below grilles, gratings, diffusers, louvers lighting fixtures, and the like, which are exposed to view through these items.
8. Painting includes shellacs, stains, varnishes, coatings specified, and striping or markers and identity markings.
9. Incidental painting and touching up as required to produce proper finish for painted surfaces, including touching up of factory finished items.
10. Painting of any surface not specifically mentioned to be painted herein or on construction documents, but for which painting is obviously necessary to complete the job, or work which comes within the intent of these specifications, is to be included as though specified.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. Master Painters Institute (MPI): Architectural Painting Specification Manual (ASM)
- C. Society for Protective Coatings (SSPC)
- D. Underwriter's Laboratory (UL)

## **DIVISION 09 – FINISHES**

### **SECTION 09 91 00 – PAINTING**

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#### **1.04 QUALITY ASSURANCE**

- A. Qualification of Painters: Use only qualified journeyman painters for the mixing and application of paint on exposed surfaces. Submit evidence that key personnel have successfully performed surface preparation and application of coating on a minimum of three (3) similar projects within the past three (3) years.
- B. Paint Coordination: Provide finish coats which are compatible with the prime paints used. Review other Sections of these specifications in which prime paints are to be provided to ensure compatibility of the total coatings system for the various substrates. Upon request from other subcontractors, furnish information on the characteristics of the finish materials proposed to be used, to ensure that compatible prime coats are used. Provide barrier coats over incompatible primers or remove and re-prime as required. Notify the City in writing of any anticipated problems using the coating systems as specified with substrates primed by others.

#### **1.05 SUBMITTALS**

- A. Application firm and personnel qualifications.
- B. Product Data:
  - Prior to work is started or mock-ups have been started submit the following:
    - 1. A complete list of products and product descriptions proposed for use on the project.
    - 2. Manufacturers' product data and accessories, technical specifications, physical characteristics, performance data, and material safety data sheets.
    - 3. Manufacturers' instructions and directions for preparation and application. Each finished surface shall use the same manufacturer's products for all coats unless otherwise approved by the City.
- C. Samples:
  - 1. Color chips: Manufacturer's complete selection
  - 2. Color samples: Three (3) draw downs: Size not less than 8-inches x 10-inches on heavy card stock.
    - a. Show colors, specified in project plans or as directed by project manager or representative and gloss level specified in this section.
    - b. Furnish additional samples as required until colors, finishes, and textures are approved.
    - c. Retain approved samples for reference.
- D. Specifications, products, and procedures performing field repairs and touch-ups to coating systems in conformance with the manufacturer's recommendations.

#### **1.06 MOCK-UPS**

- A. In addition to the samples specified herein to be submitted for approval, apply in the field, at their final location, each type and color of approved paint materials, applied 10 feet wide, floor to ceiling of wall surfaces, before proceeding with the remainder of the work, for approval by the City.
- B. Finish and texture approved by City will be used as a standard of quality and workmanship for remainder of work.
- C. Repaint individual areas which are not approved, as determined by the City, until approval is received.

## DIVISION 09 – FINISHES

### SECTION 09 91 00 – PAINTING

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#### 1.07 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to site in manufacturer's sealed container marked to show following:
  - 1. Name of manufacturer.
  - 2. Product type.
  - 3. Batch number.
  - 4. Instructions for use.
  - 5. Safety precautions.
- B. In addition to manufacturer's label, provide a label legibly printed as following:
  - 1. Surface upon which material is to be applied.
  - 2. Specify Coat Types: Prime; body; finish; etc.
- C. Maintain space for storage, and handling of painting materials and equipment in a ventilated, neat and orderly condition to prevent spontaneous combustion from occurring or igniting adjacent items.
- D. Store materials at site at least 24 hours before using, at a temperature between 45 and 85 degrees F.

#### 1.08 PROJECT SITE CONDITIONS

- A. Environmental requirements: Do no work under this section when surface or air temperatures are below 40° F or below manufacturer's recommended temperatures for conditions of installation.
- B. Ventilation: Verify adequate continuous ventilation as recommended/required by the manufacturer
- C. Illumination: Temporary lighting to attain lighting level of 80 foot candles measured at mid-height at substrate surfaces.

#### 1.09 WARRANTY

- A. Guarantee work of this section against ordinary wear and usage for two (2) years from date of substantial completion of the work.
- B. Warrant work to be in accordance with specifications, standards, and requirements incorporated in referenced ASM.

### PART 2 - PRODUCTS

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#### 2.01 PREAPPROVED MANUFACTURERS

Except as otherwise specified, materials shall be the products of the following manufacturers and shall be suitable for

- A. Rodda Paint (<https://www.roddapaint.com/>)
- B. Miller Paint (<https://www.millerpaint.com/>)
- C. Sherwin Williams (<https://www.sherwin-williams.com/>)
- D. Use a single coating manufacturer for the paint/coating system selected for each type of finish.
- E. Use products of the approved paint/coating manufacturer for other materials not specifically noted but required for the work, such as thinners.

## **DIVISION 09 – FINISHES**

### **SECTION 09 91 00 – PAINTING**

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#### **2.02 PAINT PROPERTIES**

- A. Use ready-mixed (including colors), except two component epoxies, polyurethanes, polyesters, paints having metallic powders packaged separately and paints requiring specified additives.
- B. Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience
- C. Where no requirements are given in the referenced specifications for primers, use primers with pigment and vehicle, compatible with substrate and finish coats specified.
- D. Provide undercoat paint produced by the same manufacturer as the finish coats. Use only thinners approved by the paint manufacturer and use only to recommended limits.
- E. Provide manufacturer's best quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint material containers not displaying manufacturer's product identification will not be acceptable.

#### **2.03 INTERIOR COATING SYSTEMS**

- A. Painted Finished Wood
  - 1. Primer: Rodda Paint Prime Solution First Coat Primer, dry film thickness: 1.5 – 2.0 mils
  - 2. Finish Coats: Rodda Master Painter Zero, dry film thickness: 1.5 mils/coat
- B. Ferrous Metal, Exposed Mechanical and Electrical Work
  - 1. Rusted Metal Primer: Corroseal Rust Converter/Primer, and Rodda Barrier III High Solids Metal Primer, dry film thickness: 1.5 – 2.6 mils
  - 2. Steel (Ferrous Metal): Rodda Barrier III High Solids Metal Primer, dry film thickness: 1.5 – 2.6 mils
  - 3. Galvanized Metal Primer: Rodda Paint Prime Solution First Coat Primer, dry film thickness: 1.5 – 2.0 mils
  - 4. Finish Coats: Rodda Master Painter Zero, dry film thickness: 1.5 mils/coat
- C. Gypsum Walls
  - 1. Primer: Rodda Paint Master Painter ZERO Roseal Primer, dry film thickness: 1.5 mils – 2.0 mils
  - 2. Finish Coats: Rodda Master Painter Zero, dry film thickness: 1.5 mils/coat
- D. Colors shall be per the drawings, or per Section 09 06 00 – Schedule for Finishes, or per the Contract Task Order project manager or representative.

#### **2.04 EXTERIOR COATING SYSTEMS**

- A. Ferrous Metal, Exposed Mechanical and Electrical Work
  - 1. Rusted Metal Primer: Corroseal Rust Converter/Primer, and Rodda Barrier III High Solids Metal Primer, dry film thickness: 1.5 – 2.6 mils
  - 2. Steel (Ferrous Metal): Rodda Barrier III High Solids Metal Primer, dry film thickness: 1.5 – 2.6 mils

## DIVISION 09 – FINISHES

### SECTION 09 91 00 – PAINTING

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3. Galvanized Metal Primer: Rodda Paint Prime Solution First Coat Primer, dry film thickness: 1.5 – 2.0 mils
  4. Finish Coats: Rodda Unique II, dry film thickness: 1.5 – 2.0 mils/coat
- B. Porous Masonry Block
1. Primer: Fill voids with Rodda Sprayable Latex Block Filler
  2. Finish Coats: Rodda Unique II, dry film thickness: 1.5 – 2.0 mils/coat

#### 2.05 PERFORMANCE REQUIREMENTS

- A. All paints used shall comply with Green Seal product standard with VOC limits as follows:

### PART 3 - EXECUTION

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#### 3.01 COORDINATION

Examine the areas and conditions where painting and finishing are to be applied and correct any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions are corrected to permit proper installation of the work.

#### 3.02 PREPARATION

- A. Safety: Observe required safety regulations and manufacturer's warning and instructions for storage, handling and application of painting materials.
1. Take necessary precautions to protect personnel and property from hazards due to falls, injuries, toxic fumes, fire, explosion, or other harm.
  2. Deposit soiled cleaning rags and waste materials in metal containers approved for that purpose. Dispose of such items off the site at end of each day's work.
- B. Atmospheric and Surface Conditions:
1. Do not apply coating when air or substrate conditions are:
    - a. Less than 5 degrees F above dew point.
    - b. Below 50 degrees F or over 95 degrees F, unless specifically pre-approved by the City and the product manufacturer. Under no circumstances are application conditions to exceed manufacturer recommendations.
    - c. When the relative humidity exceeds 85 percent; or to damp or wet surfaces; unless otherwise permitted by the paint manufacturer's printed instructions.
  2. Maintain interior temperatures until paint dries hard.
  3. Do no exterior painting when it is windy and dusty.
  4. Do not paint in direct sunlight or on surfaces that the sun will warm.
- C. Conduct substrate-moisture content test using an approved electronic moisture meter, as required by Contract Task Order project manager or representative. Assure that moisture content does not exceed limits indicated by ASM, Article 3.4, including the following:
1. Wood including boards, lumber and timber: 19-percent
  2. Finish detail architectural woodwork, doors, standing and running trim, and casework: 10-percent

## DIVISION 09 – FINISHES

### SECTION 09 91 00 – PAINTING

---

3. Gypsum wallboard and veneer plaster: 17-percent

#### 3.03 GENERAL WORKMANSHIP REQUIREMENTS

- A. Perform work in accordance with contract documents, references, codes, and manufacturer's instructions. Where these may be in conflict, the more stringent requirements govern.
- B. Application and workmanship: Conform to "Premium Grade" quality standards in accordance with Architectural Specifications Manual (ASM).
  1. Minimum two (2) finish coat applications over prepared and primed substrates unless specifically indicated otherwise. Apply more coats as required to completely cover holidays or color irregularities
- C. Application may be by brush or roller. Spray application only upon acceptance from the City in writing.
- D. Apply paint and other finish by methods generally accepted by the trade to achieve approved finishes.
  1. Do not apply finishes on surfaces until sufficiently prepared and dry.
  2. Include as many coats as necessary for complete coverage and acceptable appearance, but not less than number of applications indicated.
  3. Consult referenced ASM and SSPC for surfaces not specifically mentioned in this section. Confirm with Contract Task Order project manager or representative.
- E. Protect work at all times. Protect all adjacent work and materials by suitable covering or other method during progress of work. Upon completion of the work, remove all paint and varnish spots from floors, glass and other surfaces. Remove from the premises all rubbish and accumulated materials of whatever nature not caused by others and leave work in a clean condition.
- F. Remove and protect hardware, accessories, device plates, lighting fixtures, and factory finished work, and similar items, or provide in place protection. Upon completion of each space, carefully replace all removed items by workmen skilled in the trades involved.
- G. When indicated to be painted, remove electrical panel box covers and doors before painting walls. Paint separately and re-install after all paint is dry.
- H. Materials are to be applied under adequate illumination, evenly spread and flowed on smoothly to avoid runs, sags, holidays, brush marks, air bubbles and excessive roller stipple.
- I. Apply materials with a coverage to hide substrate completely. When color, stain, dirt or undercoats show through final coat of paint, the surface is to be covered by additional coats until the paint film is of uniform finish, color, appearance and coverage, at no additional cost to the City.
- J. All coats are to be dry to manufacturer's recommendations before applying succeeding coats.
- K. All suction spots or "hot spots" in plaster after the application of the first coat are to be touched up before applying the second coat.

#### 3.04 SURFACE PREPARATION

- A. The Contractor shall be held wholly responsible for the finished appearance and satisfactory completion of painting work. Properly prepare all surfaces to receive paint,

## DIVISION 09 – FINISHES

### SECTION 09 91 00 – PAINTING

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which includes cleaning, sanding, and touching-up of all prime coats applied under other Sections of the work. Broom clean all spaces before painting is started. All surfaces to be painted or finished are to be completely dry, clean and smooth.

1. Perform preparation and cleaning procedures in strict accordance with the paint manufacturer's instructions and as herein specified, for each particular substrate condition.
2. Clean surfaces before applying paint or surface treatments with materials and methods compatible with substrate and specified finish. Remove any residue remaining from cleaning agents used. Do not use solvents, acid, or steam on concrete and masonry. Schedule the cleaning and painting so that dust and other contaminants from the cleaning process will not fall in wet, newly painted surfaces.

#### B. Wood:

1. Sand to a smooth even surface and then dust off.
2. Sand surfaces showing raised grain smooth between each coat.
3. Wipe surface with a tack rag prior to applying finish.
4. After application of prime or first coat, fill cracks, nail and screw holes, depressions and similar defects with wood filler paste. Sand the surface to make smooth and finish flush with adjacent surface.
5. Before applying finish coat, reapply wood filler paste if required, and sand surface to remove surface blemishes. Finish flush with adjacent surfaces.

#### C. Ferrous Metals:

1. Remove oil, grease, soil, drawing and cutting compounds, flux and other detrimental foreign matter in accordance with SSPC-SP 1 (Solvent Cleaning).
2. Remove loose mill scale, rust, and paint, by hand or power tool cleaning, as defined in SSPC-SP 2 (Hand Tool Cleaning) and SSPC-SP 3 (Power Tool Cleaning).
3. Spot prime abraded and damaged areas in shop prime coat which expose bare metal with same type of paint used for prime coat. Feather edge of spot prime to produce smooth finish coat.
4. Spot prime abraded and damaged areas which expose bare metal of factory finished items with paint as recommended by manufacturer of item.

#### D. Masonry, Concrete, Cement Board, Cement Plaster and Stucco:

1. Clean and remove dust, dirt, oil, grease efflorescence, form release agents, laitance, and other deterrents to paint adhesion.
2. Use emulsion type cleaning agents to remove oil, grease, paint and similar products. Use of solvents, acid, or steam is not permitted.
3. Remove loose mortar in masonry work.

#### E. Gypsum Plaster and Gypsum Board:

1. Remove efflorescence, loose and chalking plaster or finishing materials.
2. Remove dust, dirt, and other deterrents to paint adhesion.



## **DIVISION 09 – FINISHES**

### **SECTION 09 91 00 – PAINTING**

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3. Fill holes, cracks, and other depressions and finished flush with adjacent surface, with texture to match texture of adjacent surface. Patch holes over 1-inch in diameter as specified in Section for plaster or gypsum board.

#### **3.05 PAINT PREPARATION**

- A. Thoroughly mix painting materials to ensure uniformity of color, complete dispersion of pigment and uniform composition.
- B. Do not thin unless necessary for application and when finish paint is used for body and prime coats. Use materials and quantities for thinning as specified in manufacturer's printed instructions.
- C. Remove paint skins, then strain paint through commercial paint strainer to remove lumps and other particles.
- D. Mix two (2) component and two (2) part paint and those requiring additives in such a manner as to uniformly blend as specified in manufacturer's printed instructions unless specified otherwise.
- E. For tinting required to produce exact shades specified, use color pigment recommended by the paint manufacturer.

#### **3.06 APPLICATION**

- A. Start of surface preparation or painting will be construed as acceptance of the surface as satisfactory for the application of materials.
- B. Unless otherwise specified, apply paint in three (3) coats; prime, body, and finish. When two (2) coats applied to prime coat are the same, first coat applied over primer is body coat and second coat is finish coat.
- C. Finish coat of paint shall be applied at the end of the Project Task Order.
- D. Apply each coat evenly and cover substrate completely.
- E. Allow not less than 48 hours between application of succeeding coats, except as allowed by manufacturer's printed instructions, and approved by City.
- F. Apply by brush or roller. Spray application for new or existing occupied spaces only upon approval by acceptance from the City in writing.
  1. Apply painting materials specifically required by manufacturer to be applied by spraying.
  2. In new construction and in existing occupied spaces, where paint is applied by spray, mask or enclose with polyethylene, or similar air tight material with edges and seams continuously sealed.
- G. Do not paint in closed position operable items such as access doors and panels, window sashes, overhead doors, and similar items except overhead roll-up doors and shutters.

#### **3.07 PRIME PAINTING**

- A. After surface preparation, prime surfaces before application of body and finish coats, except as otherwise specified.
- B. Spot prime and apply body coat to damaged and abraded painted surfaces before applying succeeding coats.
- C. Additional field applied prime coats over shop or factory applied prime coats are not required except for exterior exposed steel apply an additional prime coat.

## DIVISION 09 – FINISHES

### SECTION 09 91 00 – PAINTING

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- D. Prime rabbets for stop and face glazing of wood, and for face glazing of steel.

#### 3.08 REFINISHING EXISTING PAINTED SURFACES

- A. Clean, patch and repair existing surfaces as specified under “Surface Preparation”. No “telegraphing” of lines, ridges, flakes, etc., through new surfacing is permitted. Where this occurs, sand smooth and re-finish until surface meets with the City’s approval.
- B. Remove and reinstall items as specified under “General Workmanship Requirements”.
- C. Remove existing finishes or apply separation coats to prevent non compatible coatings from having contact.
- D. Patched or Replaced Areas in Surfaces and Components: Apply spot prime and body coats as specified for new work to repaired areas or replaced components.
- E. Except where scheduled for complete painting apply finish coat over plane surface to nearest break in plane, such as corner, reveal, or frame.
- F. Refinish areas as specified for new work to match adjoining work unless specified or scheduled otherwise.
- G. Sand or dull glossy surfaces prior to painting.
- H. Sand existing coatings to a feather edge so that transition between new and existing finish will not show in finished work.

#### 3.09 PROTECTION, CLEAN UP, AND TOUCHUP

- A. Protect work from paint droppings and spattering by use of masking, drop cloths, removal of items or by other approved methods.
- B. As work proceeds, and on completion of work promptly remove all spilled, splashed, or splattered products so as not to damage surfaces.
- C. Keep premises free from any unnecessary accumulation of tools, equipment, surplus materials, and debris.
- D. At conclusion of project, thoroughly clean paint and splatters from surfaces including adjacent surfaces. Take care not to scratch or otherwise damage surfaces. Verify chemical compatibility of cleaners to be applied to materials to be cleaned.
- E. Before final inspection, touch-up or refinished in a manner to produce solid even color and finish texture, free from defects in work which was damaged or discolored.

<b>END OF SECTION</b>
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**PART 1 - GENERAL**

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**1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

**1.02 DESCRIPTION OF WORK**

The extent and location of where to install laminated plastic signs as indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for procurement and installation of laminated plastic signs, as indicated or required for complete and finished installation, in accordance with the Drawings and these Specifications.

**1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American National Standards Institute (ANSI)

**1.04 QUALITY ASSURANCE**

- A. Manufacturer's Qualifications: Provide signage that is the product of one manufacturer, who has provided signage as specified for a minimum of three (3) years. Submit manufacturer's qualifications.
- B. Installer's Qualifications: Minimum three (3) years' experience in the installation of signage of the type as specified in this Section. Submit installer's qualifications.

**1.05 SUBMITTALS**

- A. Interior Sign Samples: Sign panels and frames, with letters and symbols, for each sign type.
  - 1. One (1) full size sample of each sign type specified in approved colors.
  - 2. Color samples of each color, 6 x 6 inches. Show anticipated range of color and texture.
  - 3. Sample of typeface, Braille signage, arrow and symbols in a typical full size layout.
- B. Manufacturer's Literature:
  - 1. Showing the methods and procedures proposed for the anchorage of the signage system to each surface type.
  - 2. Manufacturer's printed specifications and maintenance instructions.
- C. Sign Location Plan, showing location, type and total number of signs required.
- D. Shop Drawings: Scaled for manufacture and fabrication of sign types. Identify materials, show joints, welds, anchorage, accessory items, mounting and finishes.
- E. Full size layout patterns for dimensional letters.

## DIVISION 10 – SPECIALTIES

### SECTION 10 14 00 – SIGNAGE

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F. Manufacturer's qualifications.

G. Installer's qualifications.

#### 1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver materials to job in manufacturer's original sealed containers with brand name marked thereon. Protect materials from damage.

B. Package to prevent damage or deterioration during shipment, handling, storage and installation. Maintain protective covering in place and in good repair until removal is necessary.

C. Deliver signs only when the site and mounting services are ready for installation work to proceed.

D. Store products in dry condition inside enclosed facilities.

#### 1.07 WARRANTY

Ma Provide manufacturer's warranty against defect in materials for minimum one (1) year. Warranty shall provide material and labor to replace defective materials.

### PART 2 - PRODUCTS

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#### 2.01 PREAPPROVED MANUFACTURERS

Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

A. Appenx Inc. (<https://appenx.com/>)

B. Other manufacturers must submit their products, for the City's approval, to be considered as an equal.

#### 2.02 GENERAL

A. Provide signs of type, size and design shown on the construction documents.

B. Provide signs complete with lettering, framing and related components for a complete installation.

C. Provide graphics items as completed units produced by a single manufacturer, including necessary mounting accessories, fittings and fastenings.

D. Do not scale construction documents for dimensions. Verify dimensions and coordinate with field conditions. Notify the City of discrepancies or changes needed to satisfy the requirements of the construction documents.

#### 2.03 MATERIALS

A. Aluminum:

1. Sheet and Plate: ASTM B209

2. Extrusions and Tubing: ASTM B221

B. Acrylic Sheet: ASTM D4802; category as standard with manufacturer for each sign.

C. Polycarbonate Sheet: ASTM C1349, Appendix X1, Type II (coated, mar resistant, UV stabilized polycarbonate) with coating on both sides.

#### 2.04 SIGNS

A. Interchangeable Component Sign System:

## DIVISION 10 – SPECIALTIES

### SECTION 10 14 00 – SIGNAGE

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1. The Appenx interchangeable Component Sign System shall consist of an aluminum module subassembly, Slide-in or snap-in Message Tiles and Interlocking End Caps.
    - a. Interior sign system is capable of accepting slide-in or snap-in message tiles in various sizes and shapes that are interchangeable anywhere within the face surface of the sign or any other sign using the same design and construction.
    - b. Interchangeable nature of the system will allow for changes of graphic components of the installed sign without changing the sign in its entirety.
  2. Aluminum Module Subassembly:
    - a. Aluminum Module Subassembly utilizes individual .050 thick 6063-T5 extruded aluminum modules, etched and clear anodized, secured to a .032 thick 6061-T6 backer plate as the base structure of the sign.
    - b. Aluminum Module Subassembly shall be capable of accepting message tiles on one or both sides, depending upon sign style.
    - c. Aluminum Module Subassembly shall be capable of a variety of mounting options including: pressure-sensitive mounting tape, (concealed) screws, magnetic cylinders (neodymium), velcro, pin device for fabric surfaces, system-panel brackets, 90 degree wall projection, freestanding, ceiling grid brackets, ceiling cable and other mounting devices as needed.
- B. Message Tiles:
1. Message Tiles accept various forms of copy and graphics and slide onto or snap into the Module Subassembly.
  2. Message Tiles are interchangeable by sliding horizontally from either side of the sign or snap into the face surface and to other signs in the system of equal width or height.
  3. Message Tiles are cleanable without use of special chemicals or cleaning solutions.
  4. Message Tile Materials:
    - a. Fine matte acrylic - .118 thick with an acrylic lacquer finish on back surface.
    - b. Aluminum Tiles - .026 thick decorative aluminum sheet precision cut and pressure bonded to a 6063-T5 aluminum extrusion using adhesive.
    - c. Paper Insert – 6063-T5 extruded aluminum channel with a 010 polycarbonate lens (1"-3"h). 6063-T5 extruded aluminum lens retainer
    - d. Dimensional– 1/8" thick matte acrylic letters embedded into 3/32" matte surface acrylic face plate. Letters and background color of face plate painted with acrylic lacquer on second surface.
    - e. Tactile(ADA) – includes dimensional letters as described above and 1/32" high clear acrylic, perfectly round Grade 2 Braille bead message translation.
    - f. Subsurface – 7 mil bright white gloss white gloss polyester film bonded to second surface 118 non-glare acrylic tiles with optically clear, pressure sensitive acrylic mounting adhesive.
    - g. Second Surface – 2 mil high performance vinyl adhered to second surface .093 non-glare acrylic tiles. Background color of faceplate painted enamel on the second surface.

## DIVISION 10 – SPECIALTIES

### SECTION 10 14 00 – SIGNAGE

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- h. Second Surface Insert – 6063-T5 extruded aluminum channel with a matte surface. 0.015 polycarbonate lens insert. Vinyl lettering and painted enamel on the second surface.
  - i. Mosaic – .080” matte acrylic pieces on the face surface of a clear substrate to form a graphic image.
  - j. Page Insert (high profile) – 6063-T5 aluminum lens retainer with a 1/2” reveal for paper inserts with a .060 non-glare acrylic lens (4”h+).
  - k. Page Insert (low profile) – 6063-T5 aluminum lens retainer with a 1/8” reveal for paper inserts with .060 or .118 non-glare acrylic or .230 clear simulated glass acrylic lens (4”h+).
- C. End Caps/Side Kicks:
- 1. Extruded 6063-T5 aluminum End Caps/Side Kicks enclose the module subassembly using screw, slide-on clip, locking clip or permanent attachments.
  - 2. Finish – anodized or painted with acrylic lacquer in standard colors.
  - 3. Interchangeable to either end of sign and to other signs in the system of equal height.
- D. Graphic Process
- 1. Vinyl Letters – first surface applied High Performance Cast PVC Vinyl copy.
  - 2. Dimensional– 1/8” thick matte acrylic letters embedded into 3/32” matte surface acrylic face plate.
  - 3. Paper Inserts - .010 clear polycarbonate lens with paper insert initially supplied by Appenx.
- E. Engraved Plastic Signs
- 1. Colored phenolic core with contrasting, colored melamine face laminated to both sides.
  - 2. Total thickness 0.125-inches, engraved 1/32-inch raised letters and Braille.
  - 3. 1/32-inch deep engraved pictograms, and radiused corners.

### 2.05 FABRICATION

- A. Design signage components to allow for expansion and contraction for a minimum material temperature range of 100 degrees F, without causing buckling, excessive opening of joints or over stressing of adhesives, welds and fasteners.
- B. Form work to required shapes and sizes, with true curve lines and angles. Provide necessary rebates, lugs and brackets for assembly of units. Provide concealed fasteners wherever possible.
- C. Shop fabricate so far as practicable. Fasten joints flush to conceal reinforcement, or weld joints, where thickness or section permits.
- D. Level and assemble contact surfaces of connected members so joints will be tight and practically unnoticeable, without applying filling compound.
- E. Signs: Fabricate with fine, even texture to be flat and sound.
  - 1. Maintain lines and miters sharp, arises unbroken, profiles accurate and ornament true to pattern.
  - 2. Plane surfaces to be smooth, flat and without oil-canning, free of rack and twist.

## **DIVISION 10 – SPECIALTIES**

### **SECTION 10 14 00 – SIGNAGE**

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3. Maximum variation from plane of surface plus or minus 0.015 inches. Restore texture to filed or cut areas.
- F. Finish extruded members to be free from extrusion marks. Fabricate square turns, sharp corners, and true curves.
- G. Finish hollow signs with matching material on all faces, tops, bottoms and ends. Miter edge joints to give appearance of solid material.
- H. Do not manufacture signs until final sign message schedule and location review has been completed by the City and forwarded to Contractor.
- I. Drill holes for bolts and screws. Mill smooth exposed ends and edges with corners slightly rounded.
- J. Form joints exposed to weather to exclude water.
- K. Movable Parts, Including Hardware: Cleaned and adjusted to operate as designed without binding or deformation of members. Center doors and covers in opening or frame.
  1. Align contact surfaces fit tight and even without forcing or warping components.
- L. Pre-assemble items in shop to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for re-assembly and coordinated installation.
- M. Prime painted surfaces as required. Apply finish coating of paint for complete coverage with no light or thin applications allowing substrate or primer to show.
  1. Finish surface smooth, free of scratches, gouges, drips, bubbles, thickness variations, foreign matter and other imperfections.

### **PART 3 - EXECUTION**

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#### **3.01 COORDINATION**

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

#### **3.02 INSTALLATION**

- A. Locate signs as shown on the construction documents and/or sign location plans.
- B. At each sign location verify that there are no utility lines behind each sign location that will be affected by installation of signs.
  1. Correct and repair damage done to utilities during installation of signs at no additional cost to the City.
- C. Provide inserts and anchoring devices which must be set in concrete or other material for installation of signs. Submit setting drawings, templates, instructions and directions for installation of anchorage devices, which may involve other trades.
- D. Refer to Sign Message Schedule for mounting method. Mount signs in proper alignment, level and plumb according to the Sign Location Plan and the dimensions given on elevation and Sign Location Plans. When exact position, angle, height or location is not clear, contact the City for resolution.

## **DIVISION 10 – SPECIALTIES**

### **SECTION 10 14 00 – SIGNAGE**

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- E. When signs are installed on glass, provide blank glass back up to be placed on opposite side of glass exactly behind sign being installed. Provide blank glass back that is the same size as sign being installed.
- F. Touch up exposed fasteners and connecting hardware to match color and finish of surrounding surface.
- G. At completion of sign installation, clean exposed sign surfaces. Clean and repair adjoining or adjacent surfaces that became soiled or damaged as a result of installation of signs.

#### **3.03 SIGNAGE SCHEDULE**

- A. The Signage Schedule and the Sign Location Plans are inter-related documents. These documents represent location, type and total number of signs required.
- B. Contractor shall clarify any perceived irregularities in the Signage Schedule, sign mounting elevations and sign location plans

**END OF SECTION**



## DIVISION 10 – SPECIALTIES

### SECTION 10 21 13 – TOILET COMPARTMENTS

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#### PART 1 - GENERAL

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##### 1.01 RELATED WORK DESCRIBED ELSEWHERE

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### 1.02 DESCRIPTION OF WORK

The extent and location of where to install toilet compartments as indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of manufactured toilet compartments of metal, baked enamel (or powder coated) finish, as indicated or required for complete and finished installation, in accordance with the Drawings and these Specifications.

##### 1.03 REFERENCE STANDARDS

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American National Standards Institute (ANSI)

##### 1.04 SUBMITTALS

- A. Manufacturer's Literature and Data: Specified items indicating all hardware and fittings, material, finish, and latching.
- B. Shop drawings for fabrication and erection of toilet compartment assemblies not fully described by product drawings, templates, and instructions for installation of anchorage devices built into other work.
- C. Samples of full range of colors, minimum of 16 color/pattern(textured) choices, for each type of unit required. Submit 6-inch square samples of each color and finish on same substrate to be used in work, for color verification after selections have been made.

##### 1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver in manufacturer's original wrappings and packages clearly labeled with manufacturer's brand name, and related information. Transport to job site in a manner that prevents damage that might render it unusable.
- B. Store in a clean, dry, well-ventilated area, protected from damage and soiling.
- C. Handle material in a manner that will prevent tearing, or damage.

#### PART 2 - PRODUCTS

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##### 2.01 PREAPPROVED MANUFACTURERS

Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

- A. Bradley Corporation: (<https://www.bradleycorp.com/>)
- B. Scranton Products: (<https://www.scrantonproducts.com/>)

## DIVISION 10 – SPECIALTIES

### SECTION 10 21 13 – TOILET COMPARTMENTS

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#### 2.02 MATERIALS

Provide materials which have been selected for surface flatness and smoothness. Exposed surfaces which exhibit pitting, seam marks, roller marks, stains, discolorations, telegraphing of core material, or other imperfections on finished units are not acceptable

A. Steel Sheets for Baked Enamel (Powder Coated) Finish:

Steel meeting the requirements of ASTM A591, Class C, galvanized-bonderized, of following minimum thicknesses:

1. Pilasters (overhead-braced): 0.0396-inch (1.0 mm)
2. Panels and Screens: 0.0396-inch (1.0 mm)
3. Doors: 0.0336-inch (0.85 mm)

B. Concealed Anchorage Reinforcement

Minimum of 0.108-inch galvanized steel sheet

C. Concealed Tapping Reinforcements

Minimum 0.078-inch galvanized steel sheet

D. Core Material for Metal Partitions

Manufacturer's standard sound-deadening honeycomb on impregnated Kraft paper in thickness to provide finished dimension of 1-inch minimum for doors, panels, and screens and 1-1/4-inches minimum for pilasters

E. Pilaster Shoes and Caps

ASTM A167, Type 302/304 stainless steel, not less than 3-inches high, 0.0396-inch thick, finished to match hardware

F. Stirrup Brackets

Manufacturer's standard design for attaching panels to walls and pilasters, either chromium-plated nonferrous cast alloy ("Zamac") or anodized aluminum

G. Hardware and Accessories

Manufacturer's standard design, heavy-duty operating hardware and accessories of chromium-plated, nonferrous cast alloy ("Zamac")

H. Overhead Bracing

Continuous extruded aluminum, anti-grip profile, with clear anodized finish

I. Anchorages and Fasteners

Manufacturer's standard exposed stainless steel fasteners, finished to match hardware, with theft-resistant-type heads and nuts. For concealed anchors, use hot-dipped galvanized steel

#### 2.03 FABRICATION

Furnish standard doors, panels, screens, and pilasters fabricated for compartment system. Furnish units with cutouts, drilled holes, and internal reinforcement to receive partition-mounted hardware, accessories, and grab bars, as indicated

A. Door Dimensions

Unless otherwise indicated, furnish 24-inch wide in-swinging doors for ordinary toilet stalls and 32-inch wide (clear opening) out-swinging doors for stalls equipped for use by handicapped

## **DIVISION 10 – SPECIALTIES**

### **SECTION 10 21 13 – TOILET COMPARTMENTS**

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#### **B. Metal Toilet Compartments and Screens**

Pressure laminate seamless face sheets to core material and seal edges with continuous interlocking strip or with lapped and formed edges. Weld edges and corners with exposed welds ground smooth.

#### **C. Overhead-Braced Compartments**

Furnish galvanized steel supports and leveling bolts at pilasters as recommended by manufacturer to suit floor conditions. Make provisions for setting and securing continuous, extruded, aluminum, anti-grip, overhead bracing at top of each pilaster. Provide show at each pilaster to conceal supports and leveling mechanism.

#### **D. Hardware**

Furnish hardware for each compartment to comply with ANSI A117.1 for handicapped accessibility and as follows:

1. Hinges: Cutout insert type, adjustable to hold door open at any angle up to 90 degrees. Provide gravity type, spring-action cam type or concealed torsion rod type to suit manufacturer's standards.
2. Latch and Keeper: Manufacturer's standard surface-mounted latch unit, designed for handicapped accessibility, with combination rubber-faced door strike and keeper.
3. Coat Hook: Manufacturer's standard unit, combination hook and rubber-tipped bumper, sized to prevent door hitting mounted accessories.
4. Door Pull: Manufacturer's standard unit for out-swinging doors. Provide pulls on both faces of handicapped compartment doors.

## **PART 3 - EXECUTION**

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### **3.01 COORDINATION**

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

### **3.02 INSTALLATION**

#### **A. General**

1. Comply with manufacturer's recommended procedures and installation sequence.
2. Install in rigid manner, straight, plumb and with all horizontal lines level.
3. Conceal evidence of drilling, cutting and fitting in finish work.
4. Provide clearances of not more than 1/2-inch between pilasters and panels, and not more than 1-inch between panels and walls.
5. Secure panels to walls with not less than two (2) stirrup brackets attached near top and bottom of panel.
6. Locate wall brackets so that holes for wall anchorages occur in masonry or tile joints.
7. Secure panels to pilasters with not less than two (2) stirrup brackets located to align with stirrup brackets at wall.
8. Secure panels in position with manufacturer's recommended anchoring devices

#### **B. Panels and Pilasters**

1. Support panels, except urinal screens, and pilaster abutting building walls near top and bottom by stirrup supports with anchorage devices furnished.

## **DIVISION 10 – SPECIALTIES**

### **SECTION 10 21 13 – TOILET COMPARTMENTS**

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2. Secure stirrups to walls with two suitable anchoring devices for each stirrup.
3. Secure panels to faces of pilaster near top and bottom with stirrup supports, fastened to panels and secure.
4. Secure edges of panels to edges of pilasters near top and bottom with "U" shaped brackets.
5. Where overhead braced, secure pilasters to building walls by headrails clamped on or set into top of each pilaster.
  - a. Secure clamps to pilasters with two through-bolts to each clamp.
  - b. When headrails are set into pilasters, through-bolt them to the pilasters.
  - c. Support headrails on wall flange fittings secured to building walls with minimum of two fasteners to each flange fitting.

#### **3.03 ADJUSTMENT AND CLEAN UP**

##### **A. Hardware Adjustment**

1. Adjust and lubricate hardware for proper operation.
2. Set hinges on in-swinging doors to hold open approximately 30 degrees from closed position when unlatched.
3. Set hinges on out-swinging doors (and entrance swing doors) to return to fully closed position.

##### **B. Clean exposed surfaces of partition systems using materials and methods recommended by manufacturer, and provide protection as necessary to prevent damage during remainder of construction period.**

**END OF SECTION**

## **DIVISION 10 – SPECIALTIES**

### **SECTION 10 28 00 – TOILET, BATH, AND LAUNDRY ACCESSORIES**

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#### **PART 1 - GENERAL**

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##### **1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

##### **1.02 DESCRIPTION OF WORK**

The extent and location of where to install toilet, and bath accessories as indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for procurement and installation of toilet, bath accessories, as indicated or required for complete and finished installation, in accordance with the Drawings and these Specifications.

##### **1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- B. American National Standards Institute (ANSI)

##### **1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Regularly manufactures specified products.
- B. Provide products of same manufacturer for each type of accessory unit and for units exposed to view in same areas, unless otherwise approved by the Contract Task Order project manager or representative

##### **1.05 SUBMITTALS**

- A. Product data for each toilet accessory item specified, including construction details relative to materials, dimensions, gauges, profiles, mounting method, specified options and finishes.
- B. Schedule indicating types, quantities, sizes, and installation locations (by room) for each toilet accessory item to be provided for project.
- C. Maintenance instructions including replaceable parts and service recommendations.

##### **1.06 DELIVERY, STORAGE AND HANDLING**

- A. Deliver in manufacturer's original wrappings and packages clearly labeled with manufacturer's brand name, and related information. Transport to job site in a manner that prevents damage.
- B. Store in a clean, dry, well-ventilated area, protected from damage and soiling.
- C. Handle material in a manner that will prevent damage.

##### **1.07 WARRANTY**

- A. Submit a written warranty executed by mirror manufacturer, agreeing to replace any mirrors that develop visible silver spoilage defects within warranty period.

## DIVISION 10 – SPECIALTIES

### SECTION 10 28 00 – TOILET, BATH, AND LAUNDRY ACCESSORIES

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#### B. Warranty Period

1. 15 years from date of substantial completion.
2. The warranty shall not deprive the City of other rights the City may have under other provisions of the contract documents and will be in addition to and run concurrent with other warranties made by the contractor under requirements of the contract documents.

## PART 2 - PRODUCTS

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### 2.01 PREAPPROVED MANUFACTURERS

Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

- A. Bradley Corporation (<https://www.bradleycorp.com/>)

### 2.02 PREAPPROVED PRODUCTS

- A. Provide toilet accessories as shown on drawings and herein specified. Locate units as shown or, if not shown, as directed by the Contract Task Order project manager or representative.
- B. To establish level of quality, size type and material only, the scheduled accessories are listed as listed below in Toilet Accessories.
- C. ADA Toilet Accessories
1. Grab Bar Bobrick No. B-6806 x 18"
  2. Grab Bar Bobrick No. B-6806 x 36"
  3. Grab Bar Bobrick No. B-6806 x 42"
  4. SND Surface Mounted Sanitary Napkin Disposal: Bobrick No. B-270
  5. TSCD Surface-Mounted Toilet-Seat-Cover Dispenser: Bobrick No. B-221

### 2.03 MATERIALS

- A. Aluminum: ASTM B221, Alloy 6063-T5 and Alloy 6463-T5.
- B. Stainless Steel:
1. Plate Or Sheet: ASTM A666, Type 304, 0.031 inch thick unless otherwise specified.
  2. Tubing: ASTM A269, Grade TP 304, seamless or welded.
  3. Pipe: ASTM A312/A312M; Grade TP 304.
- C. Steel Sheet: ASTM A653, zinc-coated (galvanized) coating designation G90.
- D. Chrome Plating (Service Condition Number SC 2): ASTM B456.
- E. Brass Castings: ASTM B30.
- F. Copper:
1. Tubing: ASTM B75
  2. Castings: ASTM B824.

### 2.04 FABRICATION

- A. General
1. Names or labels are not permitted on exposed faces of toilet and bath accessory units.

## **DIVISION 10 – SPECIALTIES**

### **SECTION 10 28 00 – TOILET, BATH, AND LAUNDRY ACCESSORIES**

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2. On either interior surface not exposed to view or on back surface, provide identification of each accessory item either by a printed, waterproof label or a stamped nameplate indicating manufacturer's name and product model number.
- B. Surface-Mounted Toilet Accessories
1. Except where otherwise indicated, fabricate units with tight seams and joints, exposed edges rolled.
  2. Hang doors or access panels with continuous stainless steel piano hinge.
  3. Provide concealed anchorage wherever possible.

### **PART 3 - EXECUTION**

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#### **3.01 COORDINATION**

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.

#### **3.02 INSTALLATION**

- A. Install toilet accessory units according to manufacturer's instructions, using fasteners appropriate to substrate as recommended by unit manufacturer.
- B. Set work accurately, in alignment and where indicated, parallel or perpendicular as required to line and plane of surface. Install accessories plumb, level, free of rack and twist.
- C. Install accessories to function as designed. Perform maintenance service without interference with performance of other devices.
- D. Position and install dispensers, and other devices in countertops, clear of drawers, permitting ample clearance below countertop between devices, and ready access for maintenance.
- E. Align mirrors, dispensers and other accessories even and level, when installed in battery.
- F. Install accessories to prevent striking by other moving, items or interference with accessibility.
- G. Secure mirrors to walls in concealed, tamperproof manner with special hangers, toggle bolts or screws.
- H. Install grab bars to withstand a minimum downward load of 150 pounds force.
- I. Coordinate installation with tile setting.

#### **3.03 ADJUSTMENT AND CLEAN UP**

- A. Adjust toilet accessories for proper operation and verify that mechanisms function smoothly.
- B. Replace damaged or defective items.
- C. Clean and polish all exposed surfaces strictly according to manufacturer's recommendations after removing temporary labels and protective coatings.

<b>END OF SECTION</b>
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**DIVISION 12 – CASEWORK**  
**SECTION 12 30 00 – CASEWORK**

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**PART 1 - GENERAL**

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**1.01 RELATED WORK DESCRIBED ELSEWHERE**

The provisions and intent of the Contract, Including the Procurement and Contracting Requirements and General Requirements, apply to this work as if specified in this section. Work related to this section is described throughout these specifications.

**1.02 DESCRIPTION OF WORK**

The extent and location of where to install casework is indicated on the drawings. This Work shall consist of furnishing all labor, material, and equipment for installation of manufactured casework, as indicated or required for complete and finished installation, in accordance with the Drawings and these Specifications.

**1.03 REFERENCE STANDARDS**

The following publications form a part of this Section to the extent indicated by the references thereto, and these publications are referred to by basic designation only. Use the most current edition of each publication available at the time of bid unless otherwise indicated.

- A. American Hardwood Association: A135.4 Basic Hardwood
- B. American Society for Testing Materials (ASTM), Specifications, Test Methods, Guides, Practices, Classifications, and Terminology.
- C. American National Standards Institute (ANSI)
- D. National Association of Architectural Metal Manufacturers (NAAMM)
- E. American Welding Society (AWS): D1.1/D1.1M Structural Welding Code Steel and D9.1/D9.1M-18 Sheet Metal Welding Code
- F. Underwriters Laboratories (UL)

**1.04 QUALITY ASSURANCE**

- A. Approval by Contract Task Order project manager or representative is required of manufacturer and installer based upon certification of qualifications specified.
- B. Manufacturer's Qualifications:
  - 1. Manufacturer is regularly engaged in design and manufacture of modular plastic casework, casework components and accessories of scope and type similar to indicated requirements for a period of not less than five (5) years.
  - 2. Manufacturer has successfully completed at least three (3) projects of scope and type similar to indicated requirements.
  - 3. Submit manufacturer's qualifications and list of projects, including owner contact information.
- C. Installer Qualifications:
  - 1. Installer has completed at least three (3) projects in last five (5) years in which these products were installed.
  - 2. Submit installer qualifications.



**DIVISION 12 – CASEWORK**  
**SECTION 12 30 00 – CASEWORK**

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**1.05 SUBMITTALS**

- A. Product data:
  - 1. Manufacturer's literature and other data showing compliance with the specification for materials.
- B. Certification:
  - 1. Manufacturer's qualifications specified.
  - 2. Installer's qualifications specified.
- C. Shop drawings:
  - 1. Drawings complete, accurate and to scale. Include elevations, and plans, with large-scale sections and details
  - 2. Show:
    - a. Location of each component.
    - b. Dimensions and clearance as required.
    - c. Identify each component with both drawing identification and manufacturer's product number.
    - d. Note finishes, and show installation details
    - e. Details including cuts, holes, scribes, attachments and specialized construction requirements.
  - 3. Installation procedures: Show dimensions, methods of assembly, anchorage, installation and conditions relating to adjoining work.
  - 4. Placement Listing: Itemized listing by room number of components provided.
  - 5. Complete listing of each component used.
  - 6. Include the weight of each component.
- D. Operational and Maintenance Manual.

**1.06 DELIVERY, STORAGE AND HANDLING**

- A. Deliver, store and handle to prevent damage and deterioration until final acceptance of project.
- B. Deliver and store materials in manufacturer's original, labeled containers after building is enclosed and wet work is complete and dry.
- C. Store indoors, in ventilated areas with constant but minimum temperature of 60 degrees F and maximum relative humidity of 25 to 55%.
- D. Store materials in a secure, locked area.
- E. Repair or replace damaged items due to storage or handling.

**PART 2 - PRODUCTS**

---

**2.01 DESIGN REQUIREMENTS**

- A. Provide components which are alike by one (1) manufacturer with specified flexibility and interchangeability requirements.
- B. Components interchangeable to form flexible system which will accommodate change:
  - 1. Dimensions of products are nominal and shown on construction documents and schedules.

## DIVISION 12 – CASEWORK

### SECTION 12 30 00 – CASEWORK

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2. Hanging components modular on same increments.
  3. Selectively removable and replaceable without disturbing adjacent components.
- C. Combustibility: Maximum flame spread rating of 25 and smoke development of 450 when tested in accordance with ASTM E84.
- D. Basic Support Components:
1. Service Modules:
    - a. Steel support frames designed to support storage assemblies and work surfaces, enclosed plumbing and electrical lines and hold fixtures.
    - b. Used to form work area configurations that are easily rearranged.
    - c. Modules maybe installed as wall-attached structures or in freestanding configurations.
    - d. Adjacent modules capable of being joined together.
    - e. Equip module with adjustable floor guides to compensate for uneven floors.
    - f. Modules equipped with stability accessories such as floor anchors and wall attachments brackets as required. Show details on shop drawings.
    - g. Provide access panels for easy access to interior of pipe chase areas. Access panels supported individually and not tied into each other.
    - h. Modules contain method to secure piping for fixtures, electrical outlets and sinks. Detail on shop drawing.
    - i. Enclose modules to floor with a removable panel.
    - j. Modules have end panels where noted. End panels capable of supporting storage assemblies.
    - k. Modules shipped completely finished preassembled, ready for installation.
  2. Vertical Wall Strips:
    - a. Fabricated of steel or aluminum.
    - b. Wall-mounted designed to suspend selected components that require vertical height adjustments
    - c. Vertical adjustment 1 inch maximum.
    - d. Only one (1) wall strip is required between side-by-side suspended components.
    - e. Attach wall strips to walls or service modules by mechanical fasteners. Wall strips may be an integral part of service modules.
  3. Horizontal Support Rail:
    - a. Fabricated of steel or aluminum.
    - b. Designed to suspend selected components in one place, allowing them to be removed and replaced in same or different location.
    - c. Rail designed to be supported from vertical rails or service modules.
    - d. Rail configuration able to receive each hanging component.
    - e. Rail able to be cut to any length using simple hand tool or applied to form continuous runs.
    - f. System designed to eliminate area of potential dust accumulation or bacteriological growth.
    - g. Attach rail to walls or service modules with mechanical fasteners to provide a permanent installation.
  4. Panel Support System:
    - a. Steel hanger supports with slots of 1-inch intervals for suspension of casework or countertops.
    - b. Adjustable level or slides to provide uniform height on adjacent units.

## DIVISION 12 – CASEWORK

### SECTION 12 30 00 – CASEWORK

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- c. Allow removal, replacement or relocation without removing adjacent panels.
- d. Capable of installation on top of finished floor without use of fasteners to floors.
- e. Have electrical channels as specified in electrical components with two (2) duplex outlets per panel side.
- f. Heights from 34 inches to 80 inches standard with manufacturer.
- g. Widths from 12 inches to 48 inches standard with manufacturer.
- h. Connectors to withstand weight of loaded components and stress of movement under loaded conditions, including a variety of panel configurations and panels of differing heights.

#### E. Process Tables:

1. Free-standing work surface same construction as countertops for work surface.
2. Have capability to suspend and easily change under table mounted storage units.
3. Locate support legs at work surface edges to maximize knee and storage unit space.
4. Equip legs with adjustable leveling feet.
5. Provide leveling adjustment capability so units can be brought into a level position to compensate for in-site floor conditions and excessive weight loads on surfaces.

#### F. Modular Storage Units:

1. Fabricate with no exterior cracks, crevices, joints corners or angles that may facilitate bacterial accumulation.
2. Design to accept drawers, shelves, tambour doors and other accessories as indicated in construction documents. Drawer and shelf guides integrally molded into unit. Provide for shelf adjustments or drawer adjustments.
3. Provide unit with a top or with the ability to accept a lid.
4. Capable of being assembled by simple hand action without tools, except for those components fastening to work surfaces.
5. Designed to be suspended from support rail or from countertops.
6. Units, when broken apart for periodic washing and sanitizing operations have inherent capability for easy draining.
7. Drawers available in sizes indicated in construction documents and meet following requirements:
  - a. Drawer body molded one (1) piece unit. Drawer front may be added to a molded one (1)-piece tray.
  - b. Drawers capable of being suspended from horizontal support elements of storage unit without use of tool or additional pieces.
  - c. Drawers capable of stacking.
  - d. Drawers capability to accept snap-on labels.
  - e. Drawers capability to accept dust cover
  - f. Provide quantity of sub-containers and dividers for drawers, as shown on construction documents with label flags for compartments.
  - g. Drawer depth to be full depth of the base cabinet.

#### G. Shelves:

1. Continuous molded lip around perimeter designed to retain liquid spillage and retain container dividers.

## DIVISION 12 – CASEWORK

### SECTION 12 30 00 – CASEWORK

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2. Self-stacking for storage.
  3. Capability to easily accept snap-on labels.
  4. Provide container dividers, as indicated in construction documents.
- H. Shelf Units - Open and Closed Type:
1. Rounded exposed surfaces free from sharp edges.
  2. Attach and interchangeable on wall strips and service module.
  3. Doors designed to allow maximum use of interior cubic space.
  4. Provide for shelf adjustment on 1 inch.
  5. Readily installed, removed and relocated without disturbing adjacent units.
- I. Miscellaneous Components:
1. Mobile Storage Carts:
    - a. Capable of supporting six (6) full-loaded storage units.
    - b. Equipped with minimum 5 inch diameter hard-rubber tire casters, with grease fittings for lubrication. Equip two (2) casters with brakes.
    - c. Exposed and non-exposed surfaces capable of easily being cleaned and sanitized.
  2. Sink Modules:
    - a. Meet requirements of work services.
    - b. Design to hang on support rail and service modules.
    - c. Provide solid front and sides to conceal plumbing hardware.
    - d. Provide backsplash.
  3. Included in casework features that are part of the manufacturer's standards commercial product.
  4. Keyboard Tray:
    - a. Minimum of 22 inches wide by 10 inches deep.
    - b. Designed to attach to underside of counter and roll out on supports.
    - c. Fabricated as plastic laminate face unit with vinyl edge strip.
  5. Transportation:
    - a. Single unit capable of lifting large storage modules on and off storage rails providing a stable platform for transporting large storage modules to other locations without tipping over.
    - b. Equipped with hard rubber tires wheels not less than 5 inches in diameter with grease fitting for lubrication to accommodate washing and cleaning.
    - c. Design to be moved to insure safety to operator.
- J. Assembly and Disassembly:
1. Mechanical interlock system that does not require tools. Positive locking system that prevents potential of accidental dislodged.
  2. Use of standard hand tools where fasteners used, no special designed tools permitted.
  3. Components of such size and weight that can easily be lifted or moved by one (1) person or with transportation designed for such purpose.

## DIVISION 12 – CASEWORK

### SECTION 12 30 00 – CASEWORK

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- K. Live Load Capacity:
1. Loads in addition to weight of components supported.
  2. Panel types; minimum of 300 pounds maximum of 1100 pounds per panel per sides.
  3. Open panel types: Minimum of 190 pounds, maximum of 400 pounds.
  4. Roller Rails: 300 pounds per linear foot.
  5. Vertical wall strips: Minimum 600 pound.
  6. Service modules: frames: 2200 pounds.
  7. Under counter storage units: 200 pounds.
  8. Overhead Storage Units:
    - a. 30 inches by 15 inch deep by 21 inches high, maximum of 70 pounds.
    - b. 48 inches wide by 15 inches deep by 21 inches high maximum of 140 pounds
    - c. Manufactures standard modular sizes acceptable.
  9. Special Storage Units:
    - a. 22 inches wide by 24 inches deep by 25 inches high maximum of 200 pounds.
    - b. 22 inches wide by 30 inches deep by 25 inches high: maximum of 200 pounds.
    - c. Pullout shelves or fixed shelves. Maximum of 50 pounds each.
    - d. Manufacturers standard modular sizes acceptable
  10. Drawers: 400 pounds for drawers 101 mm 4 inches deep.
- L. Finish:
1. Selected from manufactures standard colors, specification Section 09 06 00, SCHEDULE FOR FINISHES.
  2. More than one (1) color may be selected for units.
  3. Steel components finished with chemical resistant paint.

#### 2.02 GLASS:

- A. A. ASTM C1048 Kind FT Type I, Class 1, Quality q3.
- B. For Doors: 1/4 inch thick; except where laminated glass is shown on construction documents.
- C. For Shelves: 1/4 inch or 3/8 inch thick, or as shown on the drawings.
- D. Laminated Glass: Fabricate of two (2) sheets 1/8 inch thick clear ASTM C1172 Kind LT glass, laminated together with a 0.060 inch thick vinyl interlayer, to a total overall thickness of 5/16 inch.
- E. Locks:
1. Manufacturer's standard design, or as shown on the drawings.
  2. Drawers capable of locking into cabinets or lockable lids.
  3. Cabinets capable of locking.
- F. Cabinet Locks:
1. Provide where locks are indicated on the drawings.
  2. Locked pair of hinged doors over 36 inches high:

## DIVISION 12 – CASEWORK

### SECTION 12 30 00 – CASEWORK

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- a. ANSI/BHMA A156.5, key one side.
  - b. On active leaf use three (3) point locking device, consisting of two (2) steel rods and lever controlled cam at lock, to operate by lever having lock cylinder housed therein.
  - c. On inactive leaf provide dummy lever of same design.
  - d. Provide keeper holes for locking device rods and cam.
3. Door and Drawer: ANSI/BHMA A156.11 cam locks. Provide one type for each condition as follows:
- a. Drawer and Hinged Door up to 36 inches high: E07261.
  - b. Drawer and Hinged Door: Pin-tumbler, cylinder type lock with not less than four (4) pins or a UL 437 rated wafer lock with brass working parts and case.
  - c. Sliding Door: E07161.
4. Marking of Locks and Keys:
- a. Name of manufacturer, or trademark which can readily be identified legibly marked on each lock and key change number marked on exposed face of lock.
  - b. Key change numbers stamped on keys.
  - c. Key change numbers to provide sufficient information for manufacturer to replace key.
- G. Hinged Doors:
1. Provide doors 36 inches and more in height with three (3) hinges and doors less than 36 inches in height is to have two (2) hinges. Each door is to close against two (2) rubber bumpers.
  2. Hinges: Fabricate hinges with minimum 0.083 inch thick chromium plated steel leaves, and with minimum 0.139 inch diameter stainless steel pin. Hinges to be five (5) knuckle design with 2-1/2 inch high leaves and hospital type tips.
  3. Concealed Hinges: BHMA A156.9, Type B01602 170 degrees of opening , self-closing.
  4. Fasteners: Provide full thread wood screws to fasten hinge leaves to door and cabinet frame. Finish screws to match finish of hinges.
- H. Door Catches:
1. Friction or Magnetic type fabricated with metal housing.
  2. Provide one (1) catch for cabinet doors 48 inches high and under, and two (2) for doors over 48 inches high.
- I. Drawer and Door Pulls:
1. Doors and drawers to have flush pulls, fabricated of either chromium-plated brass, chromium plated steel, stainless steel, or anodized aluminum. Drawer and door pulls to be of a design that can be operated with a force of 5 pounds or less, with one (1) hand and not require tight grasping, pinching or twisting of the wrist.
- J. Drawer Slides:
1. Full extension steel slides with nylon ball-bearing rollers.
  2. Slides to have positive stop.
  3. Equip drawers with rubber bumpers.

## DIVISION 12 – CASEWORK

### SECTION 12 30 00 – CASEWORK

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- K. Sliding Doors:
  - 1. Each door to be supported by two ball bearing bronze or nylon rollers, or sheaves riding on a stainless steel track at top or bottom, and to be restrained by a nylon or stainless steel guide at the opposite end.
  - 2. Plastic guides are not acceptable.
  - 3. Each door to have rubber silencers set near top and bottom of each jamb.
- L. Shelf Standards (Except For Fixed Shelves):
  - 1. Bright zinc-plated steel for recessed mounting with screws, 5/8 inch wide by 3/16 inch high providing 1/2 inch adjustment, complete with shelf supports.

#### 2.03 MATERIALS

- A. Carbon Structural Steel: ASTM A36.
- B. Stainless Steel: ASTM A240 Type 302B with number 4 finish minimum.
- C. Steel plates: ASTM A283.
- D. Sheet Steel: ASTM A1008 or ASTM A568.
- E. Steel Tubes: ASTM A423.
- F. Aluminum: ASTM B221.
- G. ABS compounds: ASTM D4673.
- H. Plastic Laminate: NEMA LD-3.
- I. Hardboard: AHA A135.4, Class 1, tempered.
- J. Particleboard: ANSI A208.1; no added urea formaldehyde.
- K. Plywood, Softwood: Prod. Std. PS1, five (5) ply construction from 1/2 inch to 1-1/8 inch thickness, and seven (7) ply for 1-1/4 inch thickness.

#### 2.04 FABRICATION

- A. Manufacturer's standard design of modular casework system meeting design requirements.
  - 1. Casework requirements specified are intended to establish minimum requirements.
  - 2. Dimensions of components shown on construction documents are nominal to represent module requirements.
  - 3. Provide components compatible with each other as to color, finish and hardware.
- B. Components of acrylonitrile butadiene styrene (ABS) compounds, ASTM D4673, with integral color throughout and molded to manufacturer's standard system design.
- C. Components stain and rust-resistant capable of withstanding washing temperatures up to 185 degrees F without distortion or physical imperfections.
- D. Storage modules, plastic laminate exposed surfaces including interiors conforming to and fabricated in accordance with LD3, over plywood conforming to PS1 or not less than 45 pounds. per cubic foot particleboard conforming to ANSI A208.1.
- E. Storage modules of molded plastic:

## **DIVISION 12 – CASEWORK**

### **SECTION 12 30 00 – CASEWORK**

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1. Fire-retardant thermoplastic or sheet-molding compound ASTM D1201, injection-molding, compression-molding or vacuumforming technique.
  2. Constructed to achieve structural strength, durability and resistance to acids, stains, corrosion and heat.
  3. Color integral throughout plastic.
- F. Fabricate frames and rails of steel or aluminum as standard with modular casework manufacturer's system.
- G. Finish metals in accordance with NAAMM AMP 500-505 and plated steel in accordance with ASTM B456 as standard with modular casework manufacturer's system.
- H. Fabricate steel components of ASTM A36/A36M, ASTM A283/A283M, ASTM A1008/A1008M or ASTM A568/A568M as standard with casework system manufacturer.
- I. Weld in accordance with AWS D1.1/D1.1M or AWS D9.1/D9.1M. Finish welds smooth and free of sharp edges where exposed.
- J. Plated Metal: Finish in accordance with ASTM B456 for steel products and NAAMM AMP 500-505.
- K. Painted Steel: Finish in accordance with NAAMM AMP 500-505 L. Anodized Aluminum: Finish as standard with modular cabinet manufacturers system.

### **PART 3 - EXECUTION**

---

#### **3.01 COORDINATION**

- A. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may commence and be performed in accordance with the Drawings and this Section.
- B. Verify location and size of mechanical and electrical services as required and perform cutting of components of work installed by other trades.
- C. Verify reinforcement of walls and partitions for support and anchorage of casework.
- D. Coordinate with other Divisions and Sections of the specification for work related to installation of casework systems to avoid interference and completion of service connections.

#### **3.02 INSTALLATION**

- A. Install casework in accordance with manufacturer's written instructions.
  1. Install in available space; arranged for safe and convenient operation and maintenance.
  2. Align cabinets for flush joints except where shown otherwise on construction documents.
  3. Install with bottom of wall cabinets in alignment and tops of base cabinets aligned level, plumb, true, and straight to a tolerance of 1/8 inch in 96 inches.
  4. Install corner cabinets with hinges on corner side with filler or spacers sufficient to allow opening of drawers.



## **DIVISION 12 – CASEWORK**

### **SECTION 12 30 00 – CASEWORK**

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- B. Support Rails:
  - 1. Install true to horizontal at heights shown on construction documents; maximum tolerance for uneven floors is plus or minus 1/2 inch.
  - 2. Shim as necessary to accommodate variations in wall surface not exceeding 3/16 inch at fastener.
- C. Wall Strips:
  - 1. Install true to vertical and spaced as shown and spaced as shown on construction documents.
  - 2. Align slots to assure that hanging units will be level.
- D. Plug Buttons:
  - 1. Install plug buttons in predrilled or prepunched perforations not used.
  - 2. Use chromium plate plug buttons or buttons finish to match adjacent surfaces.
- E. Seal junctures of casework systems with mildew-resistant silicone sealants as specified in Section 07 92 00 – Joint Sealants.

#### **3.03 CLOSURES AND FILLER PLATES**

- A. Close openings larger than 1/4 inch wide between cabinets and adjacent walls with flat, steel closure strips, scribed to required contours, or machined formed steel fillers with returns, secure with sheet metal screws to tubular or channel members of units, or bolts where exposed on inside.
- B. Where ceilings interfere with installation of sloping tops, omit sloping tops and provide flat steel filler plates.
- C. Secure filler plates to casework top members, unless shown otherwise on construction documents.
- D. Secure filler plates more than 6 inches in width top edge to a continuous 1 x 1 inch 1/16 inch thick steel formed steel angle with screws.
- E. Anchor angle to ceiling with toggle bolts.
- F. Install closure strips at exposed ends of pipe space and offset opening into concealed space. G. Finish closure strips and fillers with same finishes as cabinets.

#### **3.04 FASTENING AND ANCHORAGE**

- A. Do not anchor to wood ground strips.
- B. Provide hat shape metal spacers where fasteners span gaps or spaces.
- C. Use 1/4 inch diameter toggle or expansion bolts, or other appropriate size and type fastening device for securing casework to walls or floor. Use expansion bolts shields having holding power beyond tensile and shear strength of bolt and breaking strength of bolt head.
- D. Use 1/4 inch diameter hex bolts for securing cabinets together.
- E. Use 1/4 inch by minimum 1-1/2 inch length lag bolt anchorage to wood blocking for concealed fasteners.
- F. Use not less than No. 12 or 14 wood screws with not less than 1 1/2 inch penetration into wood blocking.

## **DIVISION 12 – CASEWORK**

### **SECTION 12 30 00 – CASEWORK**

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- G. Space fastening devices 12 inches on center with minimum of three (3) fasteners in 3 or 4 foot unit width.
- H. Anchor floor mounted cabinets with a minimum of four (4) bolts through corner gussets. Anchor bolts may be combined with or separate from leveling device.
- I. Secure cabinets in alignment with hex bolts or other internal fastener devices removable from interior of cabinets without special tools. Do not use fastener devices which require removal of tops for access.
- J. Where units abut end to end, anchor together at top and bottom of sides at front and back. Where units are back to back, anchor backs together at corners with hex bolts placed inconspicuously inside casework.
- K. Where type, size, or spacing of fastenings is not shown or specified on construction documents, show proposed fastenings and method of installation on shop drawings.

#### **3.05 ADJUSTMENTS**

- A. Adjust equipment to insure proper alignment and operation.
- B. Replace or repair damaged or improperly operating materials, components or equipment.

#### **3.06 CLEAN UP**

- A. Touch-up any abraded factory-finished surfaces to match the original finish. Touch-up of surfaces damaged by others after completing casework installation shall be by others at the expense of trade causing such damage.
- B. Immediately following installation, clean each item, removing finger marks, soil and foreign matter resulting from work of this section.
- C. Remove from job site trash, debris and packing materials resulting from work of this section.
- D. Leave installed areas clean of dust and debris resulting from work of this section.

**END OF SECTION**

**APPENDIX B**

Signature Page

Price Proposal Form

Bid Bond

Certification of Compliance With Wage Payment Statutes

State Responsibility and Reciprocal Bid Preference Information

EIC Utilization Form

Record of Prior Contracts

List of Subcontractors Category of Work

**SIGNATURE PAGE**

**CITY OF TACOMA  
TACOMA POWER / POWER SHARED SERVICES**

All submittals must be in ink or typewritten, executed by a duly authorized officer or representative of the bidding/proposing entity, and received and time stamped as directed in the **Request for Bids page near the beginning of the specification**. If the bidder/proposer is a subsidiary or doing business on behalf of another entity, so state, and provide the firm name under which business is hereby transacted.

**REQUEST FOR BIDS SPECIFICATION NO. PS24-0149F  
FACILITIES GENERAL ON-CALL CONSTRUCTION SERVICES**

The undersigned bidder/proposer hereby agrees to execute the proposed contract and furnish all materials, labor, tools, equipment and all other facilities and services in accordance with these specifications.

The bidder/proposer agrees, by submitting a bid/proposal under these specifications, that in the event any litigation should arise concerning the submission of bids/proposals or the award of contract under this specification, Request for Bids, Request for Proposals or Request for Qualifications, the venue of such action or litigation shall be in the Superior Court of the State of Washington, in and for the County of Pierce.

**Non-Collusion Declaration**

*The undersigned bidder/proposer hereby certifies under penalty of perjury that this bid/proposal is genuine and not a sham or collusive bid/proposal, or made in the interests or on behalf of any person or entity not herein named; and that said bidder/proposer has not directly or indirectly induced or solicited any contractor or supplier on the above work to put in a sham bid/proposal or any person or entity to refrain from submitting a bid/proposal; and that said bidder/proposer has not, in any manner, sought by collusion to secure to itself an advantage over any other contractor(s) or person(s).*

\_\_\_\_\_  
Bidder/Proposer's Registered Name

\_\_\_\_\_  
Signature of Person Authorized to Enter      Date  
into Contracts for Bidder/Proposer

\_\_\_\_\_  
Address

\_\_\_\_\_  
Printed Name and Title

\_\_\_\_\_  
City, State, Zip

\_\_\_\_\_  
(Area Code) Telephone Number / Fax Number

\_\_\_\_\_  
Authorized Signatory E-Mail Address

\_\_\_\_\_  
State Business License Number  
in WA, also known as UBI (Unified Business Identifier) Number

\_\_\_\_\_  
E.I.No. / Federal Social Security Number Used on Quarterly  
Federal Tax Return, U.S. Treasury Dept. Form 941

\_\_\_\_\_  
State Contractor's License Number  
(See Ch. 18.27, R.C.W.)

\_\_\_\_\_  
E-Mail Address for Communications

Addendum acknowledgement #1 \_\_\_\_\_ #2 \_\_\_\_\_ #3 \_\_\_\_\_ #4 \_\_\_\_\_ #5 \_\_\_\_\_

***THIS PAGE MUST BE SIGNED AND RETURNED WITH SUBMITTAL.***

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Name of Bidder

**PROPOSAL**

**ITEM 1**

MOBILIZATION AND  
DEMOBILIZATION

	<b><u>QUANTITY</u></b>	<b><u>BID UNIT</u></b>	<b><u>UNIT COST</u></b>	<b><u>TOTAL COST</u></b>
1a. Main Administrative Campus	25	LS	\$ _____	\$ _____
1b. Cowlitz Hydro Project	5	LS	\$ _____	\$ _____
1c. Cushman Hydro Project	5	LS	\$ _____	\$ _____
1d. Nisqually Hydro Project	5	LS	\$ _____	\$ _____
1e. Wynoochee Hydro Project	5	LS	\$ _____	\$ _____

**ITEM 2**

FURNISH AND INSTALL 3-5/8 INCH WIDE 20-  
GAUGE STEEL STUD WALL UP TO 14-FEET HIGH

2a. 0 -100 SF Area	500	SF	\$ _____	\$ _____
2b. 100 – 500 SF Area	3,000	SF	\$ _____	\$ _____
2c. Over 500 SF Area	5,000	SF	\$ _____	\$ _____

**ITEM 3**

FURNISH AND INSTALL 3-5/8 INCH WIDE 16-  
GAUGE STEEL STUD WALL TALLER THAN 14-FEET  
HIGH

3a. 0 -100 SF Area	500	SF	\$ _____	\$ _____
3b. 100 – 500 SF Area	3,000	SF	\$ _____	\$ _____
3c. Over 500 SF Area	5,000	SF	\$ _____	\$ _____

**ITEM 4**

FURNISH AND INSTALL 5/8-INCH TYPE X GYPSUM  
WALL BOARD INCLUDING LEVEL IV TAPE AND  
FINISH

4a. 0 -100 SF Area	1,200	SF	\$ _____	\$ _____
4b. 100 – 500 SF Area	3,000	SF	\$ _____	\$ _____
4c. Over 500 SF Area	10,000	SF	\$ _____	\$ _____

	<u>QUANTITY</u>	<u>BID UNIT</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
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**ITEM 5**

FURNISH AND INSTALL SOUND BATT INSULATION IN 3-5/8 INCH STUD WALL

5a. 0 -100 SF Area	500	SF	\$ _____	\$ _____
5b. 100 – 500 SF Area	3,000	SF	\$ _____	\$ _____
5c. Over 500 SF Area	5,000	SF	\$ _____	\$ _____

**ITEM 6**

FURNISH AND INSTALL PAINT

6a. 0 -200 SF Area	1,600	SF	\$ _____	\$ _____
6b. 200 – 1,000 SF Area	10,000	SF	\$ _____	\$ _____
6c. Over 1,000 SF Area	10,000	SF	\$ _____	\$ _____

**ITEM 7**

FURNISH AND INSTALL 3-FOOT X 7-FOOT STEEL DOOR FRAME INTO NEW CONSTRUCTION

7a. Furnish Frame	25	EA	\$ _____	\$ _____
7b. Install Frame	25	EA	\$ _____	\$ _____

**ITEM 8**

FURNISH AND INSTALL 4-FOOT 6-INCH X 7-FOOT STEEL DOOR FRAME WITH 1-FOOT 6-INCH SIDELIGHT INTO NEW CONSTRUCTION

8a. Furnish Frame	8	EA	\$ _____	\$ _____
8b. Install Frame	8	EA	\$ _____	\$ _____

**ITEM 9**

FURNISH AND INSTALL (DOUBLE) 6-FOOT X 7-FOOT STEEL DOOR FRAME INTO NEW CONSTRUCTION

9a. Furnish Frame	6	EA	\$ _____	\$ _____
9b. Install Frame	6	EA	\$ _____	\$ _____

**ITEM 10**

FURNISH AND INSTALL RIFT CUT RED OAK WITH CLEAR PRE-FINISH 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION

10a. Furnish Door	10	EA	\$ _____	\$ _____
10b. Install Door	10	EA	\$ _____	\$ _____

	<u>QUANTITY</u>	<u>BID UNIT</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
<b><u>ITEM 11</u></b>				
FURNISH AND INSTALL RIFT CUT RED OAK WITH CLEAR PRE-FINISH WITH RELIGHT 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION				
11a. Furnish Door	10	EA	\$ _____	\$ _____
11b. Install Door	10	EA	\$ _____	\$ _____

<b><u>ITEM 12</u></b>				
FURNISH AND INSTALL RIFT CUT, RED OAK STAINED TO MATCH ADJACENT DOORS, 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION				
12a. Furnish Doors	10	EA	\$ _____	\$ _____
12b. Install Doors	10	EA	\$ _____	\$ _____

<b><u>ITEM 13</u></b>				
FURNISH AND INSTALL RIFT-CUT, RED OAK STAINED TO MATCH ADJACENT DOORS WITH RELIGHT, 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION				
13a. Furnish Doors	10	EA	\$ _____	\$ _____
13b. Install Doors	10	EA	\$ _____	\$ _____

<b><u>ITEM 14</u></b>				
FURNISH AND INSTALL STEEL 3-FOOT X 7 FOOT DOOR INTO NEW CONSTRUCTION				
14a. Furnish Door	10	EA	\$ _____	\$ _____
14b. Install Door	10	EA	\$ _____	\$ _____

<b><u>ITEM 15</u></b>				
FURNISH AND INSTALL STEEL 3-FOOT X 7 FOOT DOOR WITH RELIGHT INTO NEW CONSTRUCTION				
15a. Furnish Door	10	EA	\$ _____	\$ _____
15b. Install Door	10	EA	\$ _____	\$ _____

<b><u>ITEM 16</u></b>				
FURNISH AND INSTALL HW1 GROUP (PASSAGE DOORS / CONFERENCE ROOM) DOOR HARDWARE INTO NEW CONSTRUCTION				
	20	EA	\$ _____	\$ _____

<b><u>ITEM 17</u></b>				
FURNISH AND INSTALL HW2 GROUP (OFFICE DOORS LOCK FROM INSIDE) DOOR HARDWARE INTO NEW CONSTRUCTION				
	40	EA	\$ _____	\$ _____

	<u>QUANTITY</u>	<u>BID UNIT</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
<b><u>ITEM 18</u></b> FURNISH AND INSTALL HW3 GROUP (PUSH / PULL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION	10	EA	\$ _____	\$ _____
<b><u>ITEM 19</u></b> FURNISH AND INSTALL HW4 GROUP (SINGLE ACCESS CONTROL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION	20	EA	\$ _____	\$ _____
<b><u>ITEM 20</u></b> FURNISH AND INSTALL HW5 GROUP (DOUBLE DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION	10	EA	\$ _____	\$ _____
<b><u>ITEM 21</u></b> FURNISH AND INSTALL HW6 GROUP (DOUBLE ACCESS CONTROL DOORS) DOOR HARDWARE INTO NEW CONSTRUCTION	5	EA	\$ _____	\$ _____
<b><u>ITEM 22</u></b> FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH DRAWERS	60	LF	\$ _____	\$ _____
<b><u>ITEM 23</u></b> FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH DOORS	60	LF	\$ _____	\$ _____
<b><u>ITEM 24</u></b> FURNISH AND INSTALL FACTORY CASEWORK, BASE WITH SHELFs	60	LF	\$ _____	\$ _____
<b><u>ITEM 25</u></b> FURNISH AND INSTALL FACTORY CASEWORK, P-LAM COUNTERTOP	120	LF	\$ _____	\$ _____
<b><u>ITEM 26</u></b> FURNISH AND INSTALL FACTORY CASEWORK, SOLID SURFACE COUNTERTOP	120	LF	\$ _____	\$ _____
<b><u>ITEM 27</u></b> FURNISH AND INSTALL 2-FOOT X 2-FOOT ACOUSTICAL CEILING GRID SYSTEM	1,000	SF	\$ _____	\$ _____
<b><u>ITEM 28</u></b> FURNISH AND INSTALL 2-FOOT X 4-FOOT ACOUSTICAL CEILING GRID SYSTEM	5,000	SF	\$ _____	\$ _____



	<u>QUANTITY</u>	<u>BID UNIT</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
<b><u>ITEM 29</u></b>				
FURNISH AND INSTALL 2-FOOT X 2-FOOT CEILING TILE				
29a. 0 - 100 SF Area	600	SF	\$ _____	\$ _____
29b. 100 – 300 SF Area	1,500	SF	\$ _____	\$ _____
29c. Over 300 SF Area	1,200	SF	\$ _____	\$ _____

<b><u>ITEM 30</u></b>				
FURNISH AND INSTALL 2-FOOT X 4-FOOT CEILING TILE				
30a. 0 - 100 SF Area	1,000	SF	\$ _____	\$ _____
30b. 100 – 300 SF Area	3,000	SF	\$ _____	\$ _____
30c. Over 300 SF Area	1,800	SF	\$ _____	\$ _____

<b><u>ITEM 31</u></b>				
FURNISH AND INSTALL SHEET VINYL FLOORING				
31a. 0 - 100 SF Area	600	SF	\$ _____	\$ _____
31b. 100 – 300 SF Area	1,500	SF	\$ _____	\$ _____
31c. Over 300 SF Area	900	SF	\$ _____	\$ _____

<b><u>ITEM 32</u></b>				
FURNISH AND INSTALL RUBBER BASE				
32a. 0 – 10 LF	100	LF	\$ _____	\$ _____
32b. 10 – 50 LF	5,000	LF	\$ _____	\$ _____
32c. Over 50 LF	400	LF	\$ _____	\$ _____

<b><u>ITEM 33</u></b>				
FURNISH AND INSTALL FLOORING				
33a. Carpet Tile 0 - 200 SF Area	200	SF	\$ _____	\$ _____
33b. Carpet Tile 200 – 1,000 SF Area	1,000	SF	\$ _____	\$ _____
33c. Carpet Tile Over 1,000 SF Area	3,000	SF	\$ _____	\$ _____

	<u>QUANTITY</u>	<u>BID UNIT</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
<b><u>ITEM 33 Continued</u></b>				
33d. Broadloom Carpet 0 - 200 SF Area	200	SF	\$ _____	\$ _____
33e. Broadloom Carpet 200 – 1,000 SF Area	1,000	SF	\$ _____	\$ _____
33f. Broadloom Carpet Over 1,000 SF Area	3,000	SF	\$ _____	\$ _____
33g. Laminate Flooring 0-200 SF Area	1,000	SF	\$ _____	\$ _____
33h Laminate Flooring 200-1,000 SF Area	5,000	SF	\$ _____	\$ _____
33i. Laminate Flooring Over 1,000 SF Area	3,000	SF	\$ _____	\$ _____
<b><u>ITEM 34</u></b>				
FURNISH AND INSTALL CERAMIC FLOOR OR WALL TILE				
34a. Floor Tile 0 -200 SF Area	200	SF	\$ _____	\$ _____
34b. Floor Tile 200 -1,000 SF Area	1,000	SF	\$ _____	\$ _____
34c. Floor Tile Over 1,000 SF Area	3,000	SF	\$ _____	\$ _____
34d. Wall Tile 0 -200 SF Area	200	SF	\$ _____	\$ _____
34e. Wall Tile 200 -1,000 SF Area	1,000	SF	\$ _____	\$ _____
34f. Wall Tile Over 1,000 SF Area	3,000	SF	\$ _____	\$ _____
<b><u>ITEM 35</u></b>				
POLISH CONCRETE				
35a. 0 -500 SF Area	1,500	SF	\$ _____	\$ _____
35b. 500 – 1,000 SF Area	4,000	SF	\$ _____	\$ _____
35c. Over 1,000 SF Area	6,000	SF	\$ _____	\$ _____
<b><u>ITEM 36</u></b>				
FURNISH AND INSTALL TOILET PARTITIONS CEILING MOUNT	100	LF	\$ _____	\$ _____
<b><u>ITEM 37</u></b>				
FURNISH AND INSTALL URINAL SCREEN	10	EA	\$ _____	\$ _____
<b><u>ITEM 38</u></b>				
FURNISH AND INSTALL ADA TOILET ACCESORIES	10	EA	\$ _____	\$ _____

	<u>QUANTITY</u>	<u>BID UNIT</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
<b><u>ITEM 39</u></b>				
FURNISH AND INSTALL EPOXY FLOORING				
39a. 0 -500 SF Area	2,000	SF	\$ _____	\$ _____
39b. 500 – 1,000 SF Area	3,000	SF	\$ _____	\$ _____
39c. Over 1,000 SF Area	6,000	SF	\$ _____	\$ _____
<b><u>ITEM 40</u></b>				
FURNISH AND INSTALL CLOSED CELL SPRAY FOAM				
2a. 0 -100 SF Area	500	SF	\$ _____	\$ _____
2b. 100 – 500 SF Area	3,000	SF	\$ _____	\$ _____
2c. Over 500 SF Area	5,000	SF	\$ _____	\$ _____
<b><u>ITEM 41</u></b>				
ON-SITE WORK HOURS FOR LABORER	1,000	HR	\$ _____	\$ _____
<b><u>ITEM 42</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL CARPENTER	1,000	HR	\$ _____	\$ _____
<b><u>ITEM 43</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL PAINTER	1,000	HR	\$ _____	\$ _____
<b><u>ITEM 44</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL DRY-WALL TAPER	1,000	HR	\$ _____	\$ _____
<b><u>ITEM 45</u></b>				
ON-SITE WORK HOURS FOR INSULATION APPLICATOR	200	HR	\$ _____	\$ _____
<b><u>ITEM 46</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL SHEET METAL WORKER	200	HR	\$ _____	\$ _____
<b><u>ITEM 47</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL REFRIGERATION MECHANIC	100	HR	\$ _____	\$ _____
<b><u>ITEM 48</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL PLUMBER	400	HR	\$ _____	\$ _____
<b><u>ITEM 49</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL TELECOMMUNICATION TECHNICIAN	200	HR	\$ _____	\$ _____

	<u>QUANTITY</u>	<u>BID UNIT</u>	<u>UNIT COST</u>	<u>TOTAL COST</u>
<b><u>ITEM 50</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL ELECTRIAN	600	HR	\$ _____	\$ _____
<b><u>ITEM 51</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL ROOFER	500	HR	\$ _____	\$ _____
<b><u>ITEM 52</u></b>				
ON-SITE WORK HOURS FOR JOURNEY-LEVEL HVAC TECHNICIAN	400	HR	\$ _____	\$ _____
<b><u>ITEM 53</u></b>				
LABOR AND MATERIALS AT COST PLUS	\$300,000 x 1. _____		\$ _____	\$ _____
<b><u>ITEM 54</u></b>				
FORCE ACCOUNT, PER LUMP SUM	1	LS	\$ 270,000	\$ _____

\*Bidders shall include the \$270,000 figure as part of their overall bid.

**TOTAL ITEMS 1 - 54** \$ \_\_\_\_\_

\*\*Sales Tax @ \_\_\_\_\_ \$ \_\_\_\_\_

**TOTAL AMOUNT** \$ \_\_\_\_\_

Herewith find deposit in the form of a cashier's check in the amount of \$ \_\_\_\_\_ which amount is not less than 5-percent of the total bid.

SIGN HERE \_\_\_\_\_

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## BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, are held and firmly bound unto the City of Tacoma, as Obligee, in the penal sum of \_\_\_\_\_ dollars, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

The condition of this 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 therefor, and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and 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:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

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\_\_\_\_\_, 20\_\_\_\_\_

Received return of deposit in the sum of \$ \_\_\_\_\_



City of Tacoma

## Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (**July 8, 2024**), that the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the state of Washington that the foregoing is true and correct.

\_\_\_\_\_  
Bidder

\_\_\_\_\_  
Signature of Authorized Official\*

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
City

\_\_\_\_\_  
State

**Check One:**

Individual

Partnership

Joint Venture

Corporation

State of Incorporation, or if not a corporation, the state where business entity was formed:

\_\_\_\_\_

If a co-partnership, give firm name under which business is transacted:

\_\_\_\_\_

*\* If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.*

Specification No. \_\_\_\_\_

Name of Bidder: \_\_\_\_\_

## State Responsibility and Reciprocal Bid Preference Information

Certificate of registration as a contractor  
(Must be in effect at the time of bid submittal):

Number: \_\_\_\_\_

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Current Washington Unified Business Identifier  
(UBI) Number:

Number: \_\_\_\_\_

Do you have industrial insurance (workers' compensation)  
Coverage nor your employees working in Washington?

Yes       No  
 Not Applicable

Washington Employment Security Department Number

Number: \_\_\_\_\_

Not Applicable

Washington Department of Revenue state excise tax  
Registration number:

Number: \_\_\_\_\_

Not Applicable

Have you been disqualified from bidding any public  
works contracts under RCW 39.06.010 or 39.12.065(3)?

Yes       No  
If yes, provide an explanation of your  
disqualification on a separate page.

Do you have a physical office located in the state of  
Washington?

Yes       No

If incorporated, in what state were you incorporated?

State: \_\_\_\_\_  Not Incorporated

If not incorporated, in what state was your business  
entity formed?

State: \_\_\_\_\_

Have you completed the training required by RCW  
39.04.350, or are you on the list of exempt businesses  
maintained by the Department of Labor and Industries?

Yes       No

# EQUITY IN CONTRACTING (EIC) REQUIREMENTS MEMO

CCD/EIC: 80014814

Date of Record: 06/21/2024

Project Spec#: PS24-0149F

Project Title: Facilities General On-Call Construction Services

## EQUITY IN CONTRACTING REQUIREMENTS

Minority Business Enterprise  
Requirement

**14%**

Women Business Enterprise  
Requirement

**3%**

Small Business Enterprise  
Requirement

**8%**

**All bidders must complete and submit with their bid the EIC Utilization form contained in the bid submittal package.**

A list of EIC-eligible companies is available at [www.omwbe.wa.gov](http://www.omwbe.wa.gov)<sup>1</sup>

### **IMPORTANT NOTE:**

It is the bidder's responsibility to ensure that the subcontractor(s) listed on the EIC Utilization Form are currently certified by the State of Washington's Office of Minority and Women Business Enterprises (OMWBE) at the time of bid opening. This may be verified by contacting the EIC Office at (253) 344-6632 between 8 AM and 5 PM, Monday through Friday or the [OMWBE](http://www.omwbe.wa.gov) Office at (866) 208-1064. Please refer to the City of Tacoma EIC code.

**MATERIAL MISSTATEMENTS CONCERNING COMPLETED ACTIONS BY THE BIDDER IN ANY SWORN STATEMENT OR FAILURE TO MEET COMMITMENTS AS INDICATED ON THE EIC UTILIZATION FORM MAY RENDER THE BIDDER IN DEFAULT OF CITY ORDINANCE 1.07**

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<sup>1</sup> For the OMWBE list, be sure to look for businesses in Pierce, King, Lewis, Mason, Grays Harbor, Thurston, or any counties adjacent to the county in which the work is performed per 1.07.050(2)(b-c). Contact the EIC Office if you have any questions.



# EQUITY IN CONTRACTING (EIC) UTILIZATION FORM



**STOP! READ Instructions to Bidders/Proposers for completing EIC Utilization Form.**

Failure to complete all sections of this form according to the instructions provided or failure to submit this form shall render the bid or proposal non-responsive. (If necessary, use additional forms to list the requirements of Columns A-D). City reserves the right to make minor, non-material corrections to completed Forms, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.

**Please note: Certified Businesses MUST be certified at time of or prior to bid opening.**

<b>1. Bidder Name:</b>					
<b>2. Project Title:</b>				<b>3. SPEC #:</b>	
<b>4. Base Bid – No Sales Tax (Must match Bid Proposal amount)</b>	\$				
Column A. Certified Business Name	Column B. Business Cert. Type			Column C. Bid Item(s) Number(s) performed by the Certified Business(es)	Column D. Subcontract Amount <small>If Material supplier, only 20% of the subcontract amount can be counted towards the EIC Requirements</small>
	MBE	WBE	SBE/DBE		
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	

\* For EIC Requirements on this Project, refer to \*EIC Requirements (EIC Reqs) Memo in the Bid Package

# EQUITY IN CONTRACTING (EIC) UTILIZATION FORM



**STOP! READ Instructions to Bidders/Proposers for completing EIC Utilization Form.**

Failure to complete all sections of this form according to the instructions provided or failure to submit this form shall render the bid or proposal non-responsive. (If necessary, use additional forms to list the requirements of Columns A-D). City reserves the right to make minor, non-material corrections to completed Forms, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.

**Please note: Certified Businesses MUST be certified at time of or prior to bid opening.**

## Example of a COMPLETED EIC UTILIZATION FORM

**Initial Information:**

<b>1. Bidder Name:</b>	ABC Construction, Inc.			<b>3. SPEC #:</b>	PW23-0011F
<b>2. Project Title:</b>	Downtown Restoration and Street Maintenance Project				
<b>4. Base Bid – No Sales Tax (Must match Bid Proposal amount)</b>	\$359,670.00				
Column A. Certified Business Name	Column B. Business Cert. Type			Column C. Bid Item(s) Number(s) performed by the Certified Business(es)	Column D. Subcontract Amount <small>If Material supplier, only 20% of the subcontract amount can be counted towards the EIC Requirements</small>
	MBE	WBE	SBE/DBE		
<b>Traffic ABC</b> Representative Name & Contact # below: <b>Beth Bell – (253) 555-3333</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Bid Item #4- Pedestrian Traffic Control</b> What is the Certified Firm Project Role? Subcontractor <input checked="" type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	<b>\$30,000</b>
<b>Survey 101, Inc.</b> Representative Name & Contact # below: <b>John Doe – (253) 111-2233</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Bid Item #1 – Roadway Surveying</b> What is the Certified Firm Project Role? Subcontractor <input checked="" type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	<b>\$9,500.00</b>
<b>Hello Manufacturer</b> Representative Name & Contact # below: <b>Sam Jam – (253) 555-7899</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Bid Item #66- Green Durable Product</b> What is the Certified Firm Project Role? Subcontractor <input type="checkbox"/> Material Supplier (20%) <input checked="" type="checkbox"/>	<b>\$10,000</b> <small>(In this example, Total subcontract amount is \$10,000- Only 20% of total will be applied towards *EIC Reqs)</small>
Representative Name & Contact # below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	What is the Certified Firm Project Role: Subcontractor <input type="checkbox"/> Material Supplier (20%) <input type="checkbox"/>	

\* For EIC Requirements on this Project, refer to \*EIC Requirements (EIC Reqs) Memo in the Bid Package

# INSTRUCTIONS TO BIDDERS FOR COMPLETING THE EQUITY IN CONTRACTING (EIC) UTILIZATION FORM

## Complete Initial Information Section:

1. Enter Bidder firm name
2. Enter Project Title as it appears on the Specification
3. Enter Spec # as it appears on the Specification
4. State the Base Bid, which is the Bidder's bid amount, plus any alternates, additives, and deductive selected by the City. Do not include sales tax.

**Complete Column "A":** List all Certified Businesses with whom you will execute a subcontract if you are the successful Bidder. Provide a contact person for the Certified Business and the contact phone number.

**Complete Column "B":** State if the identified Certified Business is certified as an MBE, WBE, and/or SBE/DBE. **Note:** One Certified Business may count towards multiple requirements; check all applicable certifications

**Complete Column "C":** Specify the role of each listed Certified Business by checking Subcontractor or Material Supplier. **Note:** Each role counts differently towards EIC Utilization Requirements.

- Subcontractor: 100% of subcontract amount counts towards the EIC Utilization Requirement
- Material Supplier: 20% of supply expenditure amount counts towards the EIC Utilization Requirement
- **EXAMPLE** Material cost = \$100,000 equates to  $(\$100,000 \times 20\%) = \$20,000$  to be applied towards the EIC Requirements

Provide a description of the scope of work, services, or materials/supplies planned to be provided by each listed Certified Business.

**Note:** The work description for each Certified Business listed on the EIC Utilization form must match the Certified Business's OMWBE Profile. This ensures that the Certified Business is able to perform the work scope or role for which they have been listed.

**Complete Column "D":** Enter the subcontract amount for each Certified Business listed. This amount is the price that Bidder and Certified Business have agreed upon **prior to submittal**.

## ADDITIONAL IMPORTANT INSTRUCTIONS:

- Bidders must contact and solicit bids from Certified Businesses prior to listing them on the EIC Utilization Form. EIC staff will contact all listed Certified Businesses to verify that they have been contacted by Bidder regarding participation and subcontract amounts **prior to being listed on this form**. If the listed Certified Businesses have not been contacted prior to being listed on this form, Bidders will be deemed non-responsive.
- Include the completed EIC Utilization form with bid submittal. Incomplete, incorrect, or missing forms will render a bid nonresponsive.
- If awarded the Contract from the Specification bidders must execute subcontracts or supply agreements with Certified Businesses listed on the EIC Utilization Form. Failure to enter into an agreement with the Certified Businesses listed in Column A for at least the corresponding dollar amount listed in Column D, may result in penalties authorized by the Tacoma Municipal Code (TMC) 1.07.110.

**RECORD OF PRIOR CONTRACTS**

**NAME** \_\_\_\_\_ **ADDRESS** \_\_\_\_\_

**Type of Work** \_\_\_\_\_ **Specification No.** \_\_\_\_\_

<b>Beginning Date</b>	<b>Completion Date</b>	<b>Contract With</b>	<b>Contact Person Phone #</b>	<b>Amount of Contract</b>

**Remarks:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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# List of Subcontractor Categories of Work

Project Name \_\_\_\_\_

Subcontractor(s) that are proposed to perform the work of heating, ventilation and air conditioning, and/or plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW must be listed below. **This information must be submitted with the bid proposal or within one hour of the published bid submittal time via email to [sendbid@cityoftacoma.org](mailto:sendbid@cityoftacoma.org).**

Subcontractor(s) that are proposed to perform the work of structural steel installation and/or rebar installation must be listed below. **This information must be submitted with the bid proposal or within forty-eight hours of the published bid submittal time via email to [sendbid@cityoftacoma.org](mailto:sendbid@cityoftacoma.org).**

Failure to list subcontractors or naming more than one subcontractor to perform the same work will result in your bid being non-responsive. Contractors self-performing must list themselves below. The work to be performed is to be listed below the subcontractor(s) name.

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Subcontractor Name \_\_\_\_\_  
Work to be Performed \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_

**APPENDIX C**

Sample Contract

Sample Payment Bond

Sample Performance Bond

Sample General Release Form

Sample Task Order Form

## CONTRACT

Resolution No.  
Contract No.

This Contract is made and entered into effective as of [Month], [Day], [Year] (“Effective Date”) by and between the City of Tacoma, a Municipal Corporation of the State of Washington (“City”), and [supplier name as it appears in Ariba, including dbas or trade names] (“Contractor”).

That in consideration of the mutual promises and obligations hereinafter set forth the Parties hereto agree as follows:

- I. Contractor shall fully execute and diligently and completely perform all work and provide all services and deliverables described herein and in the items listed below each of which are fully incorporated herein and which collectively are referred to as “Contract Documents”:

---

  1. Specification No. [Spec Number] [ Spec Title] together with all authorized addenda.
  2. Contractor’s submittal [or specifically described portions thereof] dated [Enter Submittal Date] submitted in response to Specification No. [Spec Number] [Spec Title].
  3. Describe with specific detail and list separately any other documents that will make up the contract (fee schedule, work schedule, authorized personnel, etc.) or any other additional items mutually intended to be binding upon the parties.

---
- II. If federal funds will be used to fund, pay or reimburse all or a portion of the services provided under the Contract, the terms and conditions set forth at this Appendix A are incorporated into and made part of this Contract and CONTRACTOR will comply with all applicable provisions of Appendix A and with all applicable federal laws, regulations, executive orders, policies, procedures, and directives in the performance of this Contract.  
  
If CONTRACTOR’s receipt of federal funds under this Contract is as a sub-recipient, a fully completed Appendix B, “Sub-recipient Information and Requirements” is incorporated into and made part of this Contract.
- III. In the event of a conflict or inconsistency between the terms and conditions contained in this document entitled Contract and any terms and conditions contained the above referenced Contract Documents the following order of precedence applies with the first listed item being the most controlling and the last listed item the least controlling:
  1. Contract, inclusive of Appendices A and B.
  2. List remaining Contract Documents in applicable controlling order.
- IV. The Contract terminates on xxxxx, and may be renewed for xxxxxxxx
- V. The total price to be paid by City for Contractor’s full and complete performance hereunder, including during any authorized renewal terms, may not exceed:  
\$[Dollar Amount], plus any applicable taxes.
- VI. Contractor agrees to accept as full payment hereunder the amounts specified herein and in Contract Documents, and the City agrees to make payments at the times and in the manner and upon the terms and conditions specified. Except as may be otherwise provided herein or in Contract Documents Contractor shall provide and bear the expense of all equipment, work and labor of any sort whatsoever that may be required for the transfer of materials and for constructing and completing the work and providing the services and deliverables required by this Contract.
- VII. The City’s preferred method of payment is by ePayables (Payment Plus), followed by credit card (aka procurement card), then Electronic Funds Transfer (EFT) by Automated Clearing House (ACH), then check or other cash equivalent. CONTRACTOR may be required to have the capability of accepting the City’s ePayables or credit card methods of payment. The City of Tacoma will not accept price changes or pay additional fees when ePayables (Payment Plus) or credit card is used. The City, in its sole discretion, will determine the method of payment for this Contract.

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

IX. Contractor and for its heirs, executors, administrators, successors, and assigns, does hereby agree to the full performance of all the requirements contained herein and in Contract Documents.

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

IN WITNESS WHEREOF, the Parties hereto have accepted and executed this Contract, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable.

CITY OF TACOMA:  
Signature:

CONTRACTOR:  
Signature:

Name:

Name:

Title:

Title:

(City of Tacoma use only - blank lines are intentional)

Director of Finance: \_\_\_\_\_

Deputy/City Attorney (approved as to form): \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Approved By: \_\_\_\_\_

**APPENDIX A  
FEDERAL FUNDING**



## 1. Termination for Breach

CITY may terminate this Contract in the event of any material breach of any of the terms and conditions of this Contract if CONTRACTOR's breach continues in effect after written notice of breach and 30 days to cure such breach and fails to cure such breach.

## 2. Prevailing Wages

1. If federal, state, local, or any applicable law requires CONTRACTOR to pay prevailing wages in connection with this Contract, and CONTRACTOR is so notified by the CITY, then CONTRACTOR shall pay applicable prevailing wages and otherwise comply with the Washington State Prevailing Wage Act (RCW 39.12) in the performance of this Contract.
2. If applicable, a Schedule of Prevailing Wage Rates and/or the current prevailing wage determination made by the Secretary of Labor for the locality or localities where the Contract will be performed is made of part of the Contract by this reference. If prevailing wages apply to the Contract, CONTRACTOR and its subcontractors shall:
  - i. Be bound by and perform all transactions regarding the Contract relating to prevailing wages and the usual fringe benefits in compliance with the provisions of Chapter 39.12 RCW, as amended, the Washington State Prevailing Wage Act and/or the Davis-Bacon Act (40 U.S.C. 3141- 3144, and 3146-3148) and the requirements of 29 C.F.R. pt. 5 as may be applicable, including the federal requirement to pay wages not less than once a week.
  - ii. Ensure that no worker, laborer or mechanic employed in the performance of any part of the Contract shall be paid less than the prevailing rate of wage specified on that Schedule and/or specified in a wage determination made by the Secretary of Labor (unless specifically preempted by federal law, the higher of the Washington state prevailing wage or federal Davis-Bacon rate of wage must be paid.
  - iii. Immediately upon award of the Contract, contact the Department of Labor and Industries, Prevailing Wages section, Olympia, Washington and/or the federal Department of Labor, to obtain full information, forms and procedures relating to these matters. Per such procedures, a Statement of Intent to Pay Prevailing Wages and/or other or additional documentation required by applicable federal law, must be submitted by CONTRACTOR and its subcontractors to the CITY, in the manner requested by the CITY, prior to any payment by the CITY hereunder, and an Affidavit of Wages Paid and/or other or additional documentation required by federal law must be received or verified by the CITY prior to final Contract payment.

## 3. COPELAND ANTI-KICKBACK ACT

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

- A. CONTRACTOR shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this Contract.
- B. CONTRACTOR or subcontractor shall insert in any subcontracts the clause above and such other clauses federal agencies may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts.

The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these Contract clauses.

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

#### **4. EQUAL EMPLOYMENT OPPORTUNITY**

During the performance of this Contract, CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. If the CONTRACTOR does over \$10,000 in business a year that is funded, paid or reimbursed with federal funds, CONTRACTOR will take specific and affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

- A. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B. CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- C. CONTRACTOR will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.
- D. CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- E. CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- F. In the event of CONTRACTOR's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further federally funded contracts in accordance with procedures

authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

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

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

## **5. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

- A. Overtime requirements. Neither CONTRACTOR or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- B. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (3)(A) of this section the CONTRACTOR and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such CONTRACTOR and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (3)(A) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (3)(A) of this section.
- C. Withholding for unpaid wages and liquidated damages. The CITY shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the CONTRACTOR or subcontractor under any such contract or any other Federal

contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such CONTRACTOR or sub-contractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (3)(B) of this section.

- D. Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (3)(A) through (D) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime CONTRACTOR shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (3)(A) through (D) of this section.

#### **6. CLEAN AIR ACT**

- A. CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- B. CONTRACTOR agrees to report each violation to the CITY and understands and agrees that the CITY will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal funds.

#### **7. FEDERAL WATER POLLUTION CONTROL ACT**

- A. CONTRACTOR agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- B. CONTRACTOR agrees to report each violation to the CITY and understands and agrees that the CITY will, in turn, report each violation as required to assure notification to the appropriate federal agency.
- C. CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal funding.

#### **8. DEBARMENT AND SUSPENSION**

- A. This Contract is a Covered Transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the CONTRACTOR is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
- B. CONTRACTOR must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier Covered Transaction it enters into.

- C. This certification is a material representation of fact relied upon by the CITY. If it is later determined that the CONTRACTOR did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to CITY, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- D. CONTRACTOR agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C throughout the period of this Contract and to include a provision requiring such compliance in its lower tier covered transactions.

## **9. BYRD ANTI-LOBBYING AMENDMENT**

- A. Contractors who apply or bid for an award of \$100,000 or more shall file the required certification with CITY. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the CITY.
- B. If applicable, CONTRACTOR must sign and submit to the CITY the certification required by Appendix A to 44 CFR Part 18 contained at Appendix A-1 to this Contract.

## **10. PROCUREMENT OF RECOVERED MATERIALS**

- A. In the performance of this Contract, CONTRACTOR shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:
  - i. Competitively within a timeframe providing for compliance with the contract performance schedule;
  - ii. Meeting contract performance requirements; or
  - iii. At a reasonable price.
- B. Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.
- C. CONTRACTOR also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

**APPENDIX A-1**

**APPENDIX A to 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING  
Certification for Contracts, Grants, Loans, and Cooperative Agreements**

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

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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

\_\_\_\_\_  
Signature of Contractor's Authorized Official

\_\_\_\_\_  
Name and Title of Contractor's Authorized Official

\_\_\_\_\_  
Date

**APPENDIX B—Sub-recipient information and requirements**

Pursuant to 2 CFR 200.332(a)(1) Federal Award Identification

(i) Agency Name (must match the name associated with its unique entity identifier)		(ii) Unique Entity Identifier <i>(i.e., DUNS)</i>	City of Tacoma Number for This Agreement
(iii) Federal Award Identification Number (FAIN)	(iv) Federal Award Date	(v) Federal Period of Performance Start and End Date	(vi) Federal Budget Period Start and End Date
(vii) Amount of Federal Funds <i>Obligated</i> to the agency <i>by this action</i> : \$	(viii) Total Amount of Federal Funds <i>Obligated</i> to the agency	(ix) Total Amount of the Federal Award <i>Committed</i> to the agency \$	
(x) Federal Award Project Description:  CORONAVIRUS STATE AND LOCAL FISCAL RECOVERY FUNDS– City of Tacoma			
(xi) Federal Awarding Agency:  DEPARTMENT OF THE TREASURY	Pass-Through Entity:  City of Tacoma	Awarding Official Name and Contact Information:	
(xii) Assistance Listing Number and Name (the pass-through entity must identify the dollar amount made available under each Federal award and the Assistance Listing number at time of disbursement)			(xiii) Identification of Whether the Award is R&D
(xiv) Indirect Cost Rate for the Federal Award	Award Payment Method (lump sum payment or reimbursement)  REIMBURSEMENT		



# PAYMENT BOND TO THE CITY OF TACOMA

Resolution No.  
Bond No.

That we, the undersigned,

as principal, and

as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of,

\$ \_\_\_\_\_, for the payment whereof Contractor and Surety bind themselves,

their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

This obligation is entered into in pursuance of the statutes of the State of Washington, the Ordinances of the City of Tacoma.

WHEREAS, under and pursuant to the City Charter and general ordinances of the City of Tacoma, the said City has or is about to enter with the above bounden principal, a contract, providing for

Specification No.

Specification Title:

Contract No.

(which contract is referenced to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory payment bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall pay all persons in accordance with RCW 39.08, 39.12, and 60.28, including all workers, laborers, mechanics, subcontractors, and materialmen, and all person who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and all taxes incurred on said Contract under Titles 50 and 51 RCW and all taxes imposed on the Principal under Title 82 RCW; and if such payment obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract shall in any way affect its obligation on this bond, and waives notice of any changes, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

No suit or action shall be commenced hereunder by any claimant unless claimant shall have given the written notices to the City, and where required, the Contractor, in accordance with RCW 39.08.030.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of claims which may be properly filed in accordance with RCW 39.08 whether or not suit is commenced under and against this bond.

If any claimant shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment and attorney fees as provided by RCW 39.08.030, shall also pay such costs and attorney fees as may be incurred by the City as a result of such suit. Venue for any action arising out of or in connection with this bond shall be in Pierce County, WA.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.



Resolution No.  
Bond No.  
Specification No.  
Contract No.

One original bond shall be executed, and be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: Enter Vendor Legal Name

\_\_\_\_\_

By: \_\_\_\_\_

Surety:

\_\_\_\_\_

By: \_\_\_\_\_

Agent's Name: \_\_\_\_\_

Agent's Address: \_\_\_\_\_

SAMPLE



# PERFORMANCE BOND TO THE CITY OF TACOMA

Resolution No.  
Bond No.

That we, the undersigned, \_\_\_\_\_

as principal, and \_\_\_\_\_

as a surety, are jointly and severally held and firmly bound to the CITY OF TACOMA, in the penal sum of \$ \_\_\_\_\_, for the payment whereof Contractor and Surety bind themselves, their executors, administrators, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

This obligation is entered into in pursuance of the statutes of the State of Washington, the Ordinances of the City of Tacoma.

WHEREAS, under and pursuant to the City Charter and general ordinances of the City of Tacoma, the said City has or is about to enter with the above bounden principal, a contract, providing for

Specification No. \_\_\_\_\_

Specification Title: \_\_\_\_\_

Contract No. \_\_\_\_\_

(which contract is referenced to herein and is made a part hereof as though attached hereto), and

WHEREAS, the said principal has accepted, the said contract, and undertake to perform the work therein provided for in the manner and within the time set forth.

This statutory performance bond shall become null and void, if and when the principal, its heirs, executors, administrators, successors, or assigns shall well and faithfully perform all of the Principal's obligations under the Contract and fulfill all terms and conditions of all duly authorized modifications, additions and changes to said Contract that may hereafter be made, at the time and in the manner therein specified; and if such performance obligations have not been fulfilled, this bond shall remain in force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increase.

If the City shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgement, shall pay all costs and attorney's fees incurred by the City in enforcement of its rights hereunder. Venue for any action arising out of in in connection with this bond shall be in Pierce County, Washington.

Surety companies executing bonds must be authorized to transact business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Department of the Treasury.

One original bond shall be executed, and signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed power of attorney for the office executing on behalf of the surety.

Principal: Enter Vendor Legal Name

\_\_\_\_\_

By: \_\_\_\_\_

Surety:

\_\_\_\_\_

By: \_\_\_\_\_

Agent's Name: \_\_\_\_\_

Agent's Address: \_\_\_\_\_

**GENERAL RELEASE TO THE CITY OF TACOMA**

The undersigned, named as the contractor for \_\_\_\_\_  
Project / Spec. #  
between \_\_\_\_\_ and the City of Tacoma,  
(Themselves or Itself)  
dated \_\_\_\_\_, 20\_\_\_\_, hereby releases the City of Tacoma, its  
departmental officers and agents from any and all claim or claims whatsoever in any manner  
whatsoever at any time whatsoever arising out of and/or in connection with and/or relating  
to said contract, excepting only the equity of the undersigned in the amount now retained by  
the City of Tacoma under said contract, to-wit the sum of \$ \_\_\_\_\_.

Signed at Tacoma, Washington this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

\_\_\_\_\_  
Contractor

By \_\_\_\_\_

Title \_\_\_\_\_

**"SAMPLE"**  
**TASK ORDER FORM**

Task No. \_\_\_\_\_

**Vendor and Contract Information**

**Consultant Name:**

**Contract No:**

The Professional Services Contract shall be in full force and effect for this Task Authorization. The scope, schedule and cost for this task is as listed below or as attached and referenced herein. The Contractor shall review and agree to all task specific information listed.

**Task Specific Information**

Title:

Location:

Objective:

Description:

Maximum Billable Value:

Assumptions/Conditions:

Authorized Start Date:

Required End Date:

The Contractor shall sign and return form to the Project Manager and shall have received the fully executed Formal Task Authorization form prior to start of work.

**Authorized Signatures**

\_\_\_\_\_  
Consultant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Project Manager

\_\_\_\_\_  
Date

\_\_\_\_\_  
Assistant Generation Manager

\_\_\_\_\_  
Date

Copies: Contract File  
Project Manager

**APPENDIX D**

City of Tacoma Insurance Requirements

City of Tacoma General Provisions

LEAP Documents

EIC Documents

Intent – Affidavit Info for On-Call Contracts



# CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

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This Insurance Requirements shall serve as an attachment and/or exhibit form to the Contract. The Agency entering a Contract with City of Tacoma, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise referred to as "Contractor".

## 1. GENERAL REQUIREMENTS

The following General Requirements apply to Contractor and to Subcontractor(s) performing services and/or activities pursuant to the terms of this Contract. Contractor acknowledges and agrees to the following insurance requirements:

- 1.1. Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the City of Tacoma.
- 1.2. Contractor shall keep in force during the entire term of the Contract, at no expense to the City of Tacoma, the insurance coverage and limits of liability listed below and for Thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.
- 1.3. Liability insurance policies, except for Professional Liability and Workers' Compensation, shall:
  - 1.3.1. Name the City of Tacoma and its officers, elected officials, employees, and agents as **additional insured**
  - 1.3.2. Be considered primary and non-contributory for all claims with any insurance or self-insurance or limits of liability maintained by the City of Tacoma
  - 1.3.3. Contain a "Waiver of Subrogation" clause in favor of City of Tacoma
  - 1.3.4. Include a "Separation of Insureds" clause that applies coverage separately to each insured and additional insured
  - 1.3.5. Name the "City of Tacoma" on certificates of insurance and endorsements and not a specific person or department
  - 1.3.6. Be for both ongoing and completed operations using Insurance Services Office (ISO) form CG 20 10 04 13 and CG 20 37 04 13 or the equivalent
  - 1.3.7. Be satisfied by a single primary limit or by a combination of a primary policy and a separate excess umbrella
- 1.4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements below. Verification of coverage shall include:
  - 1.4.1. An ACORD certificate or equivalent
  - 1.4.2. Copies of requested endorsements
- 1.5. Contractor shall provide to City of Tacoma Procurement & Payable Division, prior to the execution of the Contract, Certificate(s) of Insurance and endorsements from the insurer certifying the coverage of all insurance required herein. Contract or Permit number and the City of Tacoma Department must be shown on the Certificate of Insurance.
- 1.6. A renewal Certificate of Insurance shall be provided electronically prior to coverage



# CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

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expiration via email sent annually to [coi@cityoftacoma.org](mailto:coi@cityoftacoma.org).

- 1.7. Contractor shall send a notice of cancellation or non-renewal of this required insurance within Thirty (30) calendar days to [coi@cityoftacoma.org](mailto:coi@cityoftacoma.org).
- 1.8. "Claims-Made" coverages, except for pollution coverage, shall be maintained for a minimum of three years following the expiration or earlier termination of the Contract. Pollution coverage shall be maintained for six years following the expiration of the Contract. The retroactive date shall be prior to or coincident with the effective date of the Contract.
- 1.9. Each insurance policy must be written by companies licensed or authorized (or issued as surplus line by Washington surplus line broker) in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best key rating guide.
- 1.10. Contractor shall not allow any insurance to be cancelled, voided, suspended, or reduced in coverage/limits, or lapse during any term of this Contract. Otherwise, it shall constitute a material breach of the Contract.
- 1.11. Contractor shall be responsible for the payment of all premiums, deductibles and self-insured retentions, and shall indemnify and hold the City of Tacoma harmless to the extent such a deductible or self-insured retained limit may apply to the City of Tacoma as an additional insured. Any deductible or self-insured retained limits in excess of Twenty Five Thousand Dollars (\$25,000) must be disclosed and approved by City of Tacoma Risk Manager and shown on the Certificate of Insurance.
- 1.12. City of Tacoma reserves the right to review insurance requirements during any term of the Contract and to require that Contractor make reasonable adjustments when the scope of services changes.
- 1.13. All costs for insurance are included in the initial Contract and no additional payment will be made by City of Tacoma to Contractor.
- 1.14. Insurance coverages specified in this Contract are not intended and will not be interpreted to limit the responsibility or liability of Contractor or Subcontractor(s).
- 1.15. Failure by City of Tacoma to identify a deficiency in the insurance documentation or to verify coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- 1.16. If Contractor is a government agency or self-insured for any of the above insurance requirements, Contractor shall be liable for any self-insured retention or deductible portion of any claim for which insurance is required. A certification of self-insurance shall be attached and incorporated by reference and shall constitute compliance with this Section.

## 2. SUBCONTRACTORS



# CITY OF TACOMA

## INSURANCE REQUIREMENTS FOR CONTRACTS

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It is Contractor's responsibility to ensure that each subcontractor obtain and maintain adequate liability insurance coverage that applies to the service provided. Contractor shall provide evidence of such insurance upon City of Tacoma's request. Failure of any subcontractor to comply with insurance requirements does not limit Contractor's liability or responsibility.

### 3. REQUIRED INSURANCE AND LIMITS

The insurance policies shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve Contractor from liability in excess of such limits.

#### 3.1 Commercial General Liability Insurance

Contractor shall maintain Commercial General Liability Insurance policy with limits not less than One Million Dollars (\$1,000,000) each occurrence and Two Million Dollars (\$2,000,000) annual aggregate. This policy shall be written on ISO form CG 00 01 04 13 or its equivalent and shall include product liability especially when a Contract is solely for purchasing supplies. It includes Products and Completed Operations for three years following the completion of work related to performing construction services. It shall be endorsed to include: A per project aggregate policy limit (using ISO form CG 25 03 05 09 or equivalent endorsement)

#### 3.2 Commercial (Business) Automobile Liability Insurance

Contractor shall maintain Commercial Automobile Liability policy with limits not less than One Million Dollars (\$1,000,000) each accident for bodily injury and property damage and bodily injury and property damage coverage for owned (if any), non-owned, hired, or leased vehicles. Commercial Automobile Liability Insurance shall be written using ISO form CA 00 01 or equivalent. Contractor must also maintain MCS 90 and CA 99 48 endorsements or equivalent if "Pollutants" are to be transported unless in-transit Pollution coverage is covered under required Contractor's Pollution Liability Insurance.

#### 3.3 Workers' Compensation

Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington, as well as any other similar coverage required for this work by applicable federal laws of other states. Contractor must comply with their domicile State Industrial Insurance laws if it is outside the State of Washington.

#### 3.4 Employers' Liability Insurance

Contractor shall maintain Employers' Liability coverage with limits not less than One Million Dollars (\$1,000,000) each employee, One Million Dollars (\$1,000,000) each accident, and One Million Dollars (\$1,000,000) policy limit.

#### 3.5 Excess or Umbrella Liability Insurance

Contractor shall provide Excess or Umbrella Liability Insurance with limits not less than Three Million Dollars (\$3,000,000) per occurrence and in the aggregate. This coverage shall apply, at a minimum, in excess of primary underlying Commercial General Liability, Employer's Liability, Pollution Liability, Marine General Liability, Protection and Indemnity, and Automobile Liability if required herein.

#### 3.6 Pollution Liability Insurance

Contractor shall maintain Pollution Liability or Environmental Liability Insurance with limits not less than One Million Dollars (\$1,000,000) each occurrence and Two Million Dollars (\$2,000,000) in the aggregate. Coverage shall include investigation and defense costs for bodily





# CITY OF TACOMA

## INSURANCE REQUIREMENTS FOR CONTRACTS

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injury and property damage, loss of use of damaged or destroyed property, Natural Resource Damage, and Hazardous Substance Removal. Such coverage shall provide both on-site and off-site cleanup costs, cover gradual and sudden pollution, and include in its scope of coverage the City of Tacoma damage claims for loss arising out of Contractor's work.

### 3.7 Commercial Property Insurance

Contractor shall provide Commercial Property Insurance for loss or damage to any and all equipment owned by City of Tacoma while in the care, custody, or control of Contractor, Subcontractors, or their agents. The coverage shall be provided on an ISO **Special Form Causes of Loss** CP10 30 06 07 or equivalent and shall provide full replacement cost coverage. The deductible shall not exceed Two Thousand Five Hundred Dollars (\$2,500). Contractor shall be responsible for paying the deductible for the applicable coverage.

### 3.8 Installation Floater Insurance

Contractor shall maintain during the term of the Contract, at its own expense, Installation Floater Insurance covering Contractor's labor, materials, and equipment to be used for completion of the work performed under this Contract against all risks of direct physical loss, excluding earthquake and flood, for an amount equal to the full amount of the Contract improvements.

### 3.9 Builder's Risk Insurance

Contractor shall maintain during the term of the Contract and until final acceptance of the work by the City of Tacoma, a policy of Builder's Risk Insurance providing coverage for all-risk of physical injury to all structures to be constructed according to the Contract. City of Tacoma shall be included as a named insured (not named as additional insured) on the policy. Builder's Risk Insurance policy shall:

- 3.9.1 Have a deductible of no more than Five Thousand Dollars (\$5,000) for each occurrence, the payment of which will be the responsibility of Contractor. Any increased deductibles accepted by City of Tacoma will remain the responsibility of Contractor
- 3.9.2 Be on an ISO Special Form Causes of Loss or the equivalent and also include coverage for Collapse, Earthquake and Flood. The deductible for Earthquake and Flood may be higher than the \$5,000 deductible required in 3.18.1
- 3.9.3 Include coverage for temporary buildings, debris removal, and damage to materials in transit or stored off-site
- 3.9.4 Be written in the amount of the completed value of the structures, with no coinsurance provisions exposure on the part of Contractor or City of Tacoma
- 3.9.5 Contain a Waiver of Subrogation provision whereby each insured waives their subrogation rights to the extent the loss is covered by this insurance
- 3.9.6 Grant permission to occupy, allowing the building or structure to be partially occupied prior to completion, without detrimental effect to the coverage provided
- 3.9.7 Include coverage for the testing and startup of the building's operating systems
- 3.9.8 Include coverage for City of Tacoma's loss of use or business interruption arising out of a covered loss which delays completion
- 3.9.9 Include resultant damage coverage for loss due to faulty workmanship and defective material
- 3.9.10 Include coverage for startup and testing
- 3.9.11 Include coverage for resultant damage coverage for loss due to faulty



# CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

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workmanship and defective material

Contractor and City of Tacoma waive all rights against each other, their respective subcontractors, agents, and representatives for damages caused by fire or other perils to the extent covered by Builder's Risk Insurance or other property insurance applicable to the work. The policies shall provide such waivers by endorsement or otherwise.

### 3.10 Other Insurance

Other insurance may be deemed appropriate to cover risks and exposures related to the scope of work or changes to the scope of work required by City of Tacoma. The costs of such necessary and appropriate Insurance coverage shall be borne by Contractor.

# GENERAL PROVISIONS

(Revised December 15, 2020)

## SECTION I - BIDDING REQUIREMENTS

SECTION I REQUIREMENTS ARE BINDING ON ALL RESPONDENTS.

### 1.01 USE AND COMPLETION OF CITY PROPOSAL SHEETS

#### A. Respondent's Proposal

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

#### B. Alterations of Proposals Not Allowed

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

#### C. Filling Out City Proposal Sheets

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

### 1.02 CLARIFICATION OF PROPOSAL FOR RESPONDENT

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

### 1.03 RESPONDENT'S BOND OR CERTIFIED CHECK

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

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

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

### 1.04 DELIVERY OF PROPOSALS TO THE CITY'S PURCHASING OFFICE

- A. Proposal packages must be received by the City's Procurement and Payables Division in SAP Ariba (unless another form of delivery is stated), prior to the scheduled time and date stated in the Solicitation.
- B. Supplier is solely responsible for timely delivery of its Submittal.
- C. Submittals received after the time stated in the solicitation will not be accepted.
- D. For purposes of determining whether a Submittal has been timely received in SAP Ariba, the City's Procurement and Payables Division will rely on the submittal clock in SAP Ariba.

## **1.05 LICENSES/PERMITS**

- A. Suppliers, if applicable, must have a Washington state business license at the time of Submittal and throughout the term of the Contract. Failure to include a Washington state business license may be grounds for rejection of the Submittal or cancellation of contract award. Information regarding Washington state business licenses may be obtained at <http://bls.dor.wa.gov>.
- B. Upon award, it is the responsibility of the Supplier to register with the City of Tacoma's Tax and License Division, 733 South Market Street, Room 21, Tacoma, WA 98402-3768, 253-591-5252, [https://www.cityoftacoma.org/government/city\\_departments/finance/tax\\_and\\_license/](https://www.cityoftacoma.org/government/city_departments/finance/tax_and_license/). Supplier shall obtain a business license as is required by Tacoma Municipal Code Subtitle 6C.20.
- C. During the term of the Contract, Supplier, at its expense, shall obtain and keep in force any and all necessary licenses and permits.

## **1.06 CONTRACTOR'S STATE REGISTRATION NUMBER**

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

## **1.07 BID IS NONCOLLUSIVE**

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

## **1.08 EVALUATION OF BID**

### **A. Price, Experience, Delivery Time and Responsibility**

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

### **B. Prequalified Electrical Contractor**

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

### **C. Insertions of Material Conflicting with Specifications**

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

### **D. Correction of Ambiguities and Obvious Errors**

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

## **1.09 WITHDRAWAL OF BID**

### **A. Prior to Bid Opening**

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

### **B. After Bid Opening**

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

## **1.10 OPENING OF BIDS**

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

## **1.11 CITY COUNCIL/PUBLIC UTILITY BOARD FINAL DETERMINATION**

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

## **1.12 RESPONDENT'S REFUSAL TO ENTER INTO CONTRACT**

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

## **1.13 TAXES**

### **A. Include In Proposal All Taxes**

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

### **B. Federal Excise Tax**

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

### **C. City of Tacoma Business and Occupation Tax**

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

## **1.14 FIRM PRICES/ESCALATION**

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

## **1.15 AWARD**

### **A. Construction and/or Labor Contracts**

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

### **B. Supply/Equipment Contracts**

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

## **1.16 INCREASE OR DECREASE IN QUANTITIES**

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

## **1.17 EXTENSION OF CONTRACT**

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

## 1.18 PAYMENT TERMS

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

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

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

## 1.20 COOPERATIVE PURCHASING

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

## 1.21 PUBLIC DISCLOSURE: PROPRIETARY OR CONFIDENTIAL INFORMATION

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

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

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

## **1.22 FEDERAL AID PROJECTS**

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

## **SECTION II - CONTRACT REQUIREMENTS**

### **2.01 CONTRACTOR'S RESPONSIBILITY**

#### **A. Contract Documents**

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

#### **B. Surety Bonds**

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

#### **C. Independent Contractor**

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

## **2.02 CONFLICTS IN SPECIFICATIONS**

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

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

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

## **2.03 INSPECTION**

### **A. Of the Work**

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

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

### **B. Inspector's Authority**

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

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

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

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

## **2.04 FEDERAL, STATE AND MUNICIPAL REGULATIONS**

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



## **2.05 INDEMNIFICATION**

### **A. Indemnification**

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

### **B. Limitation of Liability for Primarily Supply-Type Contracts**

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

## **2.06 CONTRACTOR'S INSURANCE**

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

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

## **2.07 ASSIGNMENT AND SUBLETTING OF CONTRACT**

### **C. Assignment**

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

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

### **D. Subletting**

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

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

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

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

## **2.08 DELAY**

### **E. Extension of Time**

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

### **F. Unavoidable Delay**

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

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

## **2.09 GUARANTEE**

### **A. Guarantee for Construction, Labor or Services Contract**

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

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

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

### **B. Guarantee for Supply Contracts**

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

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

### **C. Guarantee Period Extension**

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

#### **2.10 DEDUCTIONS FOR UNCORRECTED WORK**

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

#### **2.11 CITY OF TACOMA'S RIGHT TO TERMINATE CONTRACT**

##### **A. Termination for Convenience**

1. **Supplies.** The City may terminate a Contract for supplies at any time upon prior written notice to Contractor. Upon the effective date of termination specified in such notice, and payment by the City, all conforming supplies, materials, or equipment previously furnished hereunder shall become its property.
2. **Services.** The City may terminate a Contract for services at any time, with or without cause, by giving 10-business day's written notice to Supplier. In the event of termination, all finished and unfinished work prepared by Supplier pursuant to the Contract shall be provided to the City. In the event City terminates the Contract due to the City's own reasons and without cause due to Supplier's actions or omissions, the City shall pay Supplier the amount due for actual work and services necessarily performed under the Contract up to the effective date of termination, not to exceed the total compensation set forth in the Contract.

##### **B. Termination for Cause**

1. The City may terminate a Contract for either services or supplies in the event of any material breach of any of the terms and conditions of the Contract if the Contractor's breach continues in effect after written notice of breach and 30 days to cure such breach and fails to cure such breach
2. **Bankruptcy.** If the Contractor should be adjudged as bankrupt, or makes a general assignment for the benefit of creditors, or a receiver should be appointed on account of his/her insolvency, or if he/she or any of his/her subcontractors should violate any of the provisions of the Contract, or if the work is not being properly and diligently performed, the City of Tacoma may serve written notice upon the Contractor and Surety, executing the Payment and Performance Bond, of its intention to terminate the Contract; such notice will contain the reasons for termination of the Contract, and unless within 10 days after the serving of such notice, such violation shall cease and an arrangement satisfactory to the City of Tacoma for correction thereof shall be made, the Contract shall, upon the expiration of said 10 days, cease and terminate and all rights of the Contractor hereunder shall be forfeited. In the event the Contract is terminated for cause, Contractor shall not be entitled to any lost profits resulting therefrom.
3. **Notice.** In the event of any such termination for cause, the City of Tacoma shall immediately send (by regular mail or other method) written notice thereof to the Surety and the Contractor. Upon such termination the Surety shall have the right to take over and perform the Contract, provided however, the Surety must provide written notice to the City of its intent to complete the work within 15 calendar days of its receipt of the original written notice (from the City) of the intent to terminate. Upon termination and if the Surety does not perform the work, the City of Tacoma may take over the work and prosecute the same to completion by any method it may deem advisable, for the account of and at the expense of the Contractor, and the Contractor and the Surety shall be liable to the City of Tacoma for all cost occasioned to the City of Tacoma thereby. The City of Tacoma may without liability for doing so, take possession of and utilize in completing the work, such materials, equipment, plant and other property belonging to the Contractor as may be on the site of the work and necessary therefore.

**2.12 LIENS**

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

**2.13 LEGAL DISPUTES**

**A. General**

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

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

**B. Attorney Fees**

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

**2.14 DELIVERY**

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

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

Legal holidays of the City of Tacoma are:

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

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

**2.15 PACKING SLIPS AND INVOICES**

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

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

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

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

## **2.16 APPROVED EQUALS**

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

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

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

## **2.17 ENTIRE AGREEMENT**

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

## **2.18 CODE OF ETHICS**

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

## **2.19 FEDERAL FINANCIAL ASSISTANCE**

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

- A. EQUAL EMPLOYMENT OPPORTUNITY** During the performance of this Contract, Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:
1. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
  2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
  3. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other

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

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
5. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
6. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
7. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
8. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

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

## **B. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (B)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (B)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

3. Withholding for unpaid wages and liquidated damages. The City shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (B)(2) of this section.
4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (B)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (B)(1) through (4) of this section.

**C. CLEAN AIR ACT**

1. Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
2. Contractor agrees to report each violation to the City and understands and agrees that the City will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
3. Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

**D. FEDERAL WATER POLLUTION CONTROL ACT**

1. Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
2. Contractor agrees to report each violation to the City, understands, and agrees that the City will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
3. Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

**E. DEBARMENT AND SUSPENSION**

1. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
2. Contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
3. This certification is a material representation of fact relied upon by the City. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to (insert name of recipient/subrecipient/applicant), the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
4. Contractor agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

**F. BYRD ANTI-LOBBYING AMENDMENT**

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

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

**Certification for Contracts, Grants, Loans, and Cooperative Agreements**

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

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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

\_\_\_\_\_  
Signature of Contractor's Authorized Official

\_\_\_\_\_  
Name and Title of Contractor's Authorized Official

\_\_\_\_\_ Date



## **G. PROCUREMENT OF RECOVERED MATERIALS**

1. In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:
  - a. Competitively within a timeframe providing for compliance with the contract performance schedule;
  - b. Meeting contract performance requirements; or
  - c. At a reasonable price.
2. Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.
3. Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

[Section III is for contracts that involve construction and/or labor, and are not applicable to contracts solely for material/supply purchases.]

## **GENERAL PROVISIONS**

### **SECTION III - CONSTRUCTION AND/OR LABOR CONTRACTS**

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

#### **3.01 RESPONDENT'S DUTY TO EXAMINE**

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

#### **3.02 PERMITS**

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

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

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

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

### **3.04 TRENCH EXCAVATION BID ITEM**

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

### **3.05 SAFETY**

#### **A. General**

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

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

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

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

#### **B. Work Hazard Analysis Report**

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

### **3.06 PROTECTION OF WORKERS AND PROPERTY**

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

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

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

### **3.07 CONTRACTOR - SUPERVISION AND CHARACTER OF EMPLOYEES**

#### **A. Superintendent to Supervise Contractor's Employees**

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

## **B. Character of Contractor's Employees**

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

### **3.08 CONTRACTOR'S COMPLIANCE WITH THE LAW**

#### **A. Hours of Labor**

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

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

#### **B. Prevailing Wages**

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

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

1. Be bound by and perform all transactions regarding the Contract relating to prevailing wages and the usual fringe benefits in compliance with the provisions of Chapter 39.12 RCW, as amended, the Washington State Prevailing Wage Act and/or the Davis-Bacon Act (40 U.S.C. 3141- 3144, and 3146-3148) and the requirements of 29 C.F.R. pt. 5 as may be applicable, including the federal requirement to pay wages not less than once a week,
2. Ensure that no worker, laborer or mechanic employed in the performance of any part of the Contract shall be paid less than the prevailing rate of wage specified on that Schedule and/or specified in a wage determination made by the Secretary of Labor (unless specifically preempted by federal law, the higher of the Washington state prevailing wage or federal Davis-Bacon rate of wage must be paid)and Additionally, in compliance with applicable federal law, contractors are required to pay wages not less than once a week.
3. Immediately upon award of the Contract, contact the Department of Labor and Industries, Prevailing Wages section, Olympia, Washington and/or the federal Department of Labor, to obtain full information, forms and procedures relating to these matters. Per such procedures, a Statement of Intent to Pay Prevailing Wages and/or other or additional documentation required by applicable federal law, must be submitted by Contractor and its subcontractors to the City, in the manner requested by the City, prior to any payment by the City hereunder, and an Affidavit of Wages Paid and/or other or additional documentation required by federal law must be received or verified by the City prior to final Contract payment. In the event any dispute arises as to what are the prevailing rates of wages for work of a similar nature and such dispute cannot be adjusted by the parties in interest, including labor and management representatives, the matter shall be referred for arbitration to the Director of the State of Washington, Department of Labor and industries whose decision shall be final, conclusive and binding on all parties involved in the dispute.

### 3.09 COPELAND ANTI-KICKBACK ACT

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

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

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

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

### 3.10 CHANGES

#### A. In Plans or Quantities

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

#### B. Extra Work

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

#### C. Extra Work - No Agreed Price

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

- (1) Labor, computed at regular wage scale, including premium on compensation insurance and charge for social security taxes, and other taxes, pertaining to labor; no charge for premium pay shall be allowed unless authorized by the Engineer administering the Contract;
- (2) The proportionate cost of premiums on comprehensive general liability and other insurance applicable to the extra work involved and required under this Contract;
- (3) Material, including sales taxes pertaining to materials;
- (4) Plant and equipment rental, to be agreed upon in writing before the work is begun; no charge for the cost of repairs to plant or equipment will be allowed;
- (5) Superintendence, general expense and profit computed at 20 percent of the total of paragraphs (1) to (4) inclusive;
- (6) The proportionate cost of premiums on bonds required by this Contract, computed by 1 1/2 percent of the total of paragraphs (1) to (5) inclusive.
- (7) The City of Tacoma reserves the right to furnish such materials as it may deem expedient, and no allowance will be made for profit thereon.

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

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

#### **D. Claims for Extra Work**

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

### **3.11 CLEANING UP**

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

### **3.12 PROGRESS PAYMENT**

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

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

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

### **3.13 FINAL PAYMENT**

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

- A. Provide a certificate from the Washington State Department of Revenue that all taxes due from the Contractor have been paid or are collectible in accordance with the provisions of Chapter 60.28 and Title 82 of the Revised Code of Washington;
- B. Provide the General Release to the City of Tacoma on the form set forth in these Contract documents;
- C. Provide a release of any outstanding liens that have been otherwise filed against any monies held or retained by the City of Tacoma;
- D. File with the City Director of Finance, and with the Director of the Washington State Department of Labor and Industries, on the state form to be provided, an affidavit of wages paid;
- E. File with the City Director of Finance, on the state form to be provided, a statement from the State of Washington, Department of Labor and Industries, certifying that the prevailing wage requirements have been satisfied.
- F. File with the City Director of Finance, on the state form to be provided, a statement of release from the Public Works Contracts Division of the State of Washington, Department of Labor and Industries, verifying that all industrial insurance and medical aid premiums have been paid.

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

**3.14 FAILURE TO COMPLETE THE WORK ON TIME**

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

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

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

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

**3.15 CITY RESERVES RIGHT TO USE FACILITIES PRIOR TO ACCEPTANCE**

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

**3.16 LIST OF SUBCONTRACTORS**

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



City of Tacoma  
Community and Economic Development Department  
LEAP Office  
747 Market Street, Room 900  
Tacoma, WA 98402  
(253) 591-5590  
leap@cityoftacoma.org

## **LEAP LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM ABBREVIATED PROGRAM REQUIREMENTS**

LEAP is a mandatory City of Tacoma program adopted to provide employment opportunities for City of Tacoma residents and residents of Economically Distressed Areas of the Tacoma Public Utilities Service Area. Based on the dollar amounts of projects, it requires Prime Contractors performing qualifying public works projects or service contracts ensure that a percentage of the total labor hours worked on the project are performed by LEAP-Qualified local employees and/or LEAP-Qualified apprentices approved by the Washington State Apprenticeship Council (SAC), residents of Tacoma, residents of surrounding Economically Distressed Areas, and/or TPU Service Areas (as outlined below). Compliance may be met through any combination LEAP-Qualified employees.

Prime Contractors may obtain further information by contacting the City of Tacoma's LEAP Coordinator, Deborah Trevorrow, at (253) 591-5590 or [leap@cityoftacoma.org](mailto:leap@cityoftacoma.org). The LEAP Coordinator can assist contractors in the recruitment of qualified entry-level workers to work on City of Tacoma Public Works projects. The LEAP Office is in the Tacoma Municipal Building, 747 Market Street, Rm 900.

### **LEAP PROGRAM REQUIREMENTS:**

1. **LOCAL EMPLOYMENT Requirement:** The Prime Contractor is required to ensure that 15 percent of the total Labor Hours worked on the project are performed by residents of the City of Tacoma or Economically Distressed ZIP Codes for the following projects:
  - a) Civil Projects over \$250,000
  - b) Building Projects over \$750,000
2. **APPRENTICE Requirement:** The Contractor is required to ensure that an additional 15 percent of the total Labor Hours worked on any project over \$1,000,000 are performed by Apprentices who are residents of the Tacoma Public Utilities Service Area. This is in addition to the Local Employment Goal and dependent on project parameters.
3. **SUBCONTRACTOR NOTIFICATION:** Prime Contractors shall notify all Subcontractors of the LEAP Program requirement(s). Subcontractor labor hours may be utilized towards achievement of the LEAP Requirements. Owner/Operator hours may be used for the Local Employment Requirement.
4. **FAILURE TO MEET LEAP UTILIZATION REQUIREMENT:** Contractors shall be assessed an amount for each hour that is not achieved. The amount per hour shall be based on the percent of the requirement that is met. All rounding shall be done down to the nearest whole percent. The amount per hour that shall be assessed is as follows:

- 100% achievement           \$0.00 penalty
- 99% to 90% achievement   \$2.00 penalty
- 89% to 75% achievement   \$3.50 penalty
- 74% to 50% achievement   \$5.00 penalty
- 49% to 1% achievement     \$7.50 penalty
- 0% achievement             \$10.00 penalty

**LEAP DOCUMENT SUBMITTALS\*\*:**

1. *LEAP EMPLOYEE VERIFICATION FORM*: upon request, the Contractor must provide the LEAP Office with a form for every person whom the contractor thinks will assist with attaining credit towards meeting the LEAP Utilization Requirements with at least one piece of verifying documentation. The LEAP Office staff will respond regarding whether or not the employee is LEAP-Qualified.
2. *WEEKLY CERTIFIED PAYROLL*: In LCP Tracker: the Prime and Subcontractors must submit No Work Performed and weekly Certified Payrolls that include, employee name, address, social security number, craft/trade, class, hours worked on this job, rate of pay, and gross wages paid including benefits for this job.
3. *DEPARTMENT OF LABOR & INDUSTRIES (L&I)*: The Prime must enter the project in the L&I project site under the 'Tacoma, City of' account and notify the LEAP Office when this has been completed.

**\*\*WITHHOLDING PROGRESS PAYMENTS**: The LEAP Coordinator may withhold progress payments for failure to follow the above-outlined procedures





City of Tacoma  
LEAP Office  
747 Market Street, Room 900  
Tacoma, WA 98402  
(253) 591-5590 or leap@cityoftacoma.org

## LEAP

### Documents and Submittal Schedule

In the attached packet, you will find the LEAP documentation and forms that are required to be submitted by the Prime and Sub Contractors.

- ❑ **LEAP Abbreviated Program Requirements:** brief overview of LEAP Program requirements
- ❑ **LEAP Employee Verification Form:** to be submitted, **upon request**, for each employee who may be a LEAP-qualified employee
- ❑ **Tacoma Public Utilities Service Area Map and List, Economically Distressed ZIP Codes Map and List:** for your reference on LEAP-qualified zoning areas

In addition, the City of Tacoma will also require from the Prime Contractor and all its Subcontractors:

- ❑ **Weekly Certified Payrolls and No Work Performed Statements:** to be submitted via LCP Tracker weekly, biweekly or monthly.
- ❑ **Statement of Intent to Pay Prevailing Wages:** to be submitted prior to commencing work
- ❑ **Affidavit of Wages Paid:** to be submitted upon completion of each contractor's work
- ❑ **Document Verification:** provide required information when requested from LEAP Office

Please submit above documents as instructed by the LEAP Coordinator.

If you have any questions or request further information, please feel free to contact the City of Tacoma's LEAP Program at (253) 591-5590 or leap@cityoftacoma.org

**CHAPTER 1.90**  
**LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM**

Sections:

- 1.90.010 Purpose.
- 1.90.020 Scope.
- 1.90.030 Definitions.
- 1.90.040 LEAP goals.
- 1.90.050 *Repealed.*
- 1.90.060 Effect of program on prime contractor/subcontractor relationship.
- 1.90.070 Apprentice utilization requirements – Bidding and contractual documents.
- 1.90.080 Enforcement.
- 1.90.090 Compliance with applicable law.
- 1.90.100 Review and reporting.
- 1.90.105 Authority
- 1.90.110 Interpretation.

**1.90.010 Purpose.**

The purpose of this Chapter is to establish a means of providing for the development of a trained and capable workforce possessing the skills necessary to fully participate in the construction trades.

(Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.020 Scope.**

The provisions of this Chapter shall apply to all Public Works or Improvements funded in whole or in part with City funds or funds which the City expends or administers in accordance with the terms of a grant.

(Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.030 Definitions.**

As used in this chapter, the following terms shall have the following meanings:

- A. “Apprentice” shall mean a person enrolled in a course of training specific to a particular construction trade or craft, which training shall be approved by the Washington State Apprenticeship and Training Council established pursuant to RCW 49.04.010.
- B. “Building Projects” shall mean all Public Works or Improvements having an Estimated Cost greater than \$750,000.00, and for which a building permit must be issued pursuant to Chapter 1 of the current edition of the state building code (Uniform Building Code).
- C. “City” shall mean all divisions and departments of the City of Tacoma, and all affiliated agencies, provided, however, that the Tacoma Community Redevelopment Authority shall not be included within this definition.
- D. “Civil Projects” shall mean all Public Works or Improvements that are not defined as a “Building Project,” provided that those projects having an Estimated Cost of less than \$250,000.00 shall not be included in this definition.
- E. “Contractor or Service Provider” means a person, corporation, partnership, or joint venture entering into a contract with the City to construct a Public Work or Improvement.
- F. “Director” shall mean the Director of Community and Economic Development, or the Director’s Designee.
- G. “Economically Distressed ZIP Codes” shall mean ZIP codes in the Tacoma Public Utilities Service Area that meet two out of three (2/3) of the thresholds of:

- 1. High concentrations of residents living under 200% of the federal poverty line in terms of persons per acre (69th percentile)
- 2. High concentrations of unemployed people in terms of persons per acre (45th percentile)
- 3. High concentrations of people 25 years or older without a college degree in terms of persons per acre (75th percentile)

Said thresholds shall be updated within 30 days following any Prevailing Wage updates issued by the Washington State Labor and Industry. All updates are to be published on the first business day in August and in February of each calendar year.

H. “Electrical Utility” and “Water Utility” shall mean, respectively, the Light Division of the Department of Public Utilities of the City of Tacoma, and shall include the electrical and telecommunications services of that Division, and the Water Division of the Department of Public Utilities of the City of Tacoma.

I. “Estimated Cost” shall mean the anticipated cost of a Public Work or Improvement, as determined by the City, based upon the expected costs of materials, supplies, equipment, and labor, but excluding taxes and contingency funds.

J. “Estimated Labor Hours” shall mean the anticipated number of Labor Hours determined by the City to be necessary to construct a Public Work or Improvement and set forth in the specifications for the project, or as may be subsequently revised due to contract or project adjustment, or pursuant to an agreed upon change order.

K. “Existing Employee” shall mean an employee whom the Contractor or Service Provider can demonstrate was actively employed by the Contractor or Service Provider for at least 1000 hours in the calendar year prior to bid opening plus one month following bid opening, and who was performing work in the construction trades.

L. “Labor Hours” shall mean the actual number of hours worked by workers receiving an hourly wage who are employed on the site of a Public Work or Improvement, and who are subject to state or federal prevailing wage requirements. The term “Labor Hours” shall include hours performed by workers employed by the Contractor or Service Provider and all Subcontractors, and shall include additional hours worked as a result of a contract or project adjustment or pursuant to an agreed upon change order. The term “Labor Hours” shall not include hours worked by workers who are not subject to the prevailing wage requirements set forth in either RCW 39.12 or the Davis-Bacon Act - 40 U.S.C. 276 (a).

M. “LEAP Coordinator” shall mean the City of Tacoma staff member who administers LEAP.

N. “LEAP Program” or “Program” shall mean the City of Tacoma’s Local Employment and Apprenticeship Training Program, as described in this chapter.

O. “LEAP Regulations” or “Regulations” shall mean the rules and practices established in this document.

P. “LEAP Utilization Plan” shall mean the document submitted by the Contractor to the LEAP Coordinator which outlines how the associated goals will be met on the project.

Q. “Priority Hire Resident” shall mean any resident within the Economically Distressed ZIP Codes.

R. “Project Engineer” shall mean the City employee who directly supervises the engineering or administration of a particular construction project subject to this chapter.

S. “Public Work or Improvement” shall have the same meaning as provided in Section 39.04.010 RCW, as that Section may now exist or hereafter be amended.

T. “Resident of Tacoma” shall mean any person, not defined as a Resident of the Community Empowerment Zone, who continues to occupy a dwelling within the boundaries of the City of Tacoma, has a present intent to continue residency within the boundaries of the City, and who demonstrates the genuineness of that intent by producing evidence that the person’s presence is more than merely transitory in nature.

U. “Service Area - Electrical” or “Electrical Service Area” shall mean that area served with retail sales by the Electrical Utility of the City of Tacoma at the time a bid is published by the Electrical Utility for a Public Work or Improvement to be performed primarily for the Electrical Utility.

V. “Service Area - Water” or “Water Service Area” shall mean that area served with retail sales by the water utility of the City of Tacoma at the time a bid is published by the water utility for a Public Work or Improvement to be performed primarily for the water utility.

W. “Service Contract” shall mean all City contracts relating to a Public Work or Improvement which utilize labor at a City site and which are not within the exceptions to nor defined as “Building Projects” or “Civil Projects.”

X. “Subcontractor” means a person, corporation, partnership, or joint venture that has contracted with the Contractor or Service Provider to perform all or part of the work to construct a Public Work or Improvement by a Contractor.

Y. “Tacoma Public Utilities” means the City of Tacoma, Department of Public Utilities.

Z. “Tacoma Public Utilities Service Area” shall mean every ZIP code listed by Tacoma Public Utilities as an area that either receives services or maintains infrastructure to provide services.

AA. Washington State Labor and Industry Prevailing Wage shall mean the hourly wage, usual benefits and overtime, paid in the largest city in each county, to the majority of workers, laborers, and mechanics. Prevailing wages are established, by the Department of Labor & Industries, for each trade and occupation employed in the performance of public work. They are established separately for each county, and are reflective of local wage conditions.

(Ord. 28520 Ex. A; passed Jul. 17, 2018; Ord. 28147 Ex. B; passed May 7, 2013; Ord. 28110 Ex. C; passed Dec. 4, 2012; Ord. 27815 Ex. A; passed Jun. 30, 2009; Ord. 27368 § 1; passed Jun. 21, 2005; Ord. 26698 § 1; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.040 LEAP goals.**

**A. Utilization Goals.**

1. All Contractors constructing Civil Projects or Building Projects, and all Service Providers involved with the construction of a Public Work or Improvement, shall ensure that at least 15 percent of the total Labor Hours actually worked on the Project are performed by persons having their residence within the boundaries of the City of Tacoma or Economically Distressed ZIP Codes, whether or not any such person is an Apprentice.

a. The thresholds for this section shall be \$250,000.00 for Civil Projects and \$750,000.00 for Building Projects.

2. Fifteen percent (15%) of the Total Labor Hours on contracts above one-million dollars (\$1,000,000.00) shall have work performed by Apprentices who are residents of the Tacoma Public Utilities Service Area consistent with RCW 39.04.320(1)(a), subject to waiver based on exceptions as specified in RCW 39.04.320(2)(a), (b), and (c).

3. Labor Hours performed by non-residents of the State of Washington will be deducted from a project’s total Labor Hours for purposes of determining compliance with the requirements of this chapter.

4. All Contractors and Service Providers shall submit a LEAP Utilization Plan as provided for in the regulations adopted under this chapter, and shall meet with the LEAP Coordinator to review said Plan prior to being issued a Notice to Proceed. Failure to submit a LEAP Utilization Plan may be grounds for the City to withhold remittance of a progress payment until such Plan is received from the responsible Contractor or Provider. A meeting with the LEAP Coordinator prior to issuance of a Notice to Proceed shall be excused only when the LEAP Coordinator is unavailable to meet prior to the scheduled date for issuance of the Notice to Proceed and the Contractor and the LEAP Coordinator have otherwise scheduled a meeting for the coordinator to review the Contractor’s or Provider’s plan.

The Contractor or Service Provider shall be responsible for meeting the LEAP utilization goal requirements of the contract, including all amendments and change orders thereto, and shall be responsible for overall compliance for all hours worked by Subcontractors. To the extent possible, the Contractor or Service Provider shall recruit Apprentices from multiple trades or crafts.

**B. Failure to Meet Utilization Goal.**

1. Contracts for the construction of Building projects or Civil projects and Service Contracts shall provide that Contractors or Service Providers failing to meet the LEAP utilization goals shall be assessed an amount for each hour that is not achieved. The amount per hour shall be based on the extent the Contractor or Service Provider met its goal. The amount per hour that shall be assessed shall be as follows:

Percent of Goal Met	Assessment per unmet hour
100%	\$ 0.00
90% - 99%	\$ 2.00
75% to 89%	\$ 3.50
50% to 74%	\$ 5.00
1% to 49%	\$ 7.50
0%	\$10.00

When determining the percent of goal that is met, all rounding shall be down to the nearest whole percent. No penalty shall be waived by the City unless it is determined by the Director to be in the best interests of the City, which determination shall be made after consultation with the LEAP Coordinator.

2. Deposit of Assessments. All assessments imposed pursuant to this section shall be deposited into a separate account and utilized to support the City’s pre-apprenticeship and training program. The policies and regulations adopted by the City Manager and Director of Utilities pursuant to this chapter shall address issues pertaining to a Contractor’s existing workforce. Contributions need not be made for Labor Hours that have been adjusted in accordance with Section 1.90.040(E).

**C. LEAP Reports.**

Notwithstanding the provisions of TMC 1.90.100, the Director shall, not less than annually, publish a LEAP report setting forth Contractor compliance with this chapter. Said report shall include information on all contracts and all Contractors to which this chapter applies, and shall detail the level and nature of LEAP participation by contract and by Contractor, The

Director's LEAP report may include such other information as may be helpful to assuring fair and accurate representation of the contracts, Contractors or projects covered in the report. The Director's LEAP reports may be considered by the Board of Contracts and Awards in its determinations as to bidder responsibility.

D. LEAP Goal Adjustments.

1. LEAP utilization goals may be adjusted prior to bid opening and/or as a result of a contract amendment or change order on a Building Project, Civil Project, or Service Contract.

a. If LEAP utilization goals are adjusted prior to bid opening, they shall be set forth in the bid or Request For Proposal advertisement and specification documents or in an addendum timely provided to prospective bidders, provided that such adjustment shall be based upon a finding by the Project Engineer that the reasonable and necessary requirements of the contract render LEAP utilization unfeasible at the required levels. The Director shall concur with the Project Engineer's finding, provided that should the Project Engineer and the Director fail to reach agreement on the Project Engineer's finding, then in that circumstance the matter shall be referred to the City Manager or the Director of Utilities, as appropriate, for ultimate resolution. Notwithstanding any other provision of this chapter to the contrary, the decision of the City Manager or the Director of Utilities with regard to LEAP goal adjustment may not be appealed.

b. If LEAP utilization goals are adjusted due to contract amendment or change order, the amount of adjustment shall be consistent with the utilization goals set forth in this chapter and shall be determined pursuant to regulations adopted pursuant to this chapter for administration of LEAP utilization goal adjustments.

2. The methodology of determining the appropriate adjustments to LEAP utilization goals shall be determined in consultation with the LEAP Advisory Committee, established pursuant to this ordinance for so long as the LEAP Advisory Committee remains in existence.

3. LEAP utilization goals shall not apply to those portions of a project that are funded by sources other than (a) City funds, or (b) funds which the City expends or administers in accordance with the terms of a grant to the City, provided that the Project Engineer shall notify the Director of such non-application prior to bid advertisement. For the purposes of this paragraph, credits extended by another entity for the purpose of providing project funding shall not be considered to be City funds.

E. Utilization - Electrical Projects Outside Electrical Service Area.

Civil Projects or Building Projects that are constructed primarily for the benefit or use by the City's Electrical Utility, which are wholly situated outside the Electrical Service Area, and for which the estimated cost is less than \$1,000,000.00, are exempt from the requirements of this chapter.

F. Utilization - Water Projects Outside Water Service Area.

Civil Projects or Building Projects that are constructed primarily for the benefit or use by the City's water utility, which are wholly situated outside the Water Service Area, and for which the estimated cost is less than \$1,000,000.00 are exempt from the requirements of this chapter.

G. Utilization - Projects Outside Tacoma Public Utilities Service Area.

Civil Projects or Building Projects that are constructed primarily for the benefit or use by Tacoma Public Utilities, which are wholly situated outside the retail service area of the Tacoma Public Utilities Service Area, and for which the estimated cost is less than \$1,000,000.00 are exempt from the requirements of this chapter. Projects wholly situated outside the Tacoma Public Utilities Service Area, and for which the estimated cost is more than \$1,000,000.00, shall be exempt from 15% utilization goal specified in subsection A1. of this section. The 15% utilization goal specified in subsection A2. of this section may be met if project work is performed by Apprentices who are enrolled in a course of training specific to a particular construction trade or craft, provided such training has been approved by the Washington State Apprenticeship and Training Council in accordance with Chapter 49.04, RCW.

H. Emergency.

This chapter shall not apply in the event of an Emergency. For the purposes of this section, an "Emergency" means unforeseen circumstances beyond the control of the City that either: (a) present a real, immediate threat to the proper performance of essential functions; or (b) will likely result in material loss or damage to property, bodily injury, or loss of life if immediate action is not taken.

I. Conflict with State or Federal Requirements.

If any part of this chapter is found to be in conflict with federal or state requirements which are a prescribed condition to the allocation of federal or state funds to the City, then the conflicting part of this chapter is inoperative solely to the extent of the conflict and with respect to the City departments directly affected. This provision does not affect the operation of the

remainder of this chapter. Administrative rules or regulations adopted under this chapter shall meet federal and state requirements which are a necessary condition to the receipt of federal or state funds by the City.

(Ord. 28520 Ex. A; passed Jul. 17, 2018; Ord. 28147 Ex. B; passed May 7, 2013; Ord. 27815 Ex. A; passed Jun. 30, 2009; Ord. 27368 § 2; passed Jun. 21, 2005; Ord. 26992 § 1; passed Oct. 15, 2002; Ord. 26698 § 2; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.050 Repealed by Ord. 27368. Good faith efforts.**

(Ord. 27368 § 3; passed Jun. 21, 2005; Ord. 26698 § 3; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.060 Effect of program on prime contractor/service provider - subcontractor relationship.**

The LEAP Program shall not be construed so as to modify or interfere with any relationship between any Contractor or Service Provider and Subcontractor. The LEAP Program shall not grant the City any authority to control the manner or method of accomplishing any construction work that is additional to any authority retained by the City in a Public Works contract.

(Ord. 26698 § 4; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.070 Apprentice utilization requirements – Bidding and contractual documents.**

All packages of bid documents for every Building Project and every Civil Project shall incorporate provisions satisfactory to the City Attorney so as to allow enforcement of the provisions contained in this Chapter. Such contractual provisions may include liquidated damages, calculated to reimburse the City for the Contractor’s breach of these performance requirements, which shall be published with the City’s call for bids.

(Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.080 Enforcement.**

A. The Director shall review the Contractor’s or Service Provider’s and all Subcontractor’s employment practices during the performance of the work for compliance with LEAP Program requirements. On-site visits may be conducted as necessary to verify compliance with the requirements of the LEAP Program. The Contractor, Service Provider, or Subcontractors shall not deny to the City the right to interview its employees, provided that the Director shall make reasonable efforts to coordinate employee interviews with employers.

B. Any knowing failure or refusal to cooperate in compliance monitoring may disqualify the defaulting Contractor, Service Provider, or Subcontractor from eligibility for other City contracts.

C. The making of any material misrepresentation may disqualify the defaulting Contractor, Service Provider, or Subcontractor from eligibility for other City contracts.

D. Any action by the City, its officers and employees, under the provisions of this Chapter may be reviewed by the Board of Contracts and Awards, upon written application of the party so affected. Application shall be made within twenty (20) days of the date of the action upon which the appeal is based, and provided to the City by certified mail or by personal service. Any action taken by the Board of Contracts and Awards may be appealed to the City Council or Public Utility Board, as appropriate, and thereafter if desired, to the Superior Court of Pierce County, Washington, within fifteen (15) days of the previous decision.

(Ord. 26698 § 5; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.090 Compliance with applicable law.**

Nothing in this Chapter shall excuse a Prime Contractor, Service Provider, or Subcontractor from complying with all relevant federal, state, and local laws.

(Ord. 26698 § 6; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.100 Review and reporting.**

The City Manager and Director of Utilities shall review the Program on or before January 1, 2000, and every two (2) years thereafter, and shall report to the City Council and Public Utility Board the Manager’s and Director’s findings, conclusions, and recommendations as to the continued need for the Program, and any revisions thereto that should be considered by the Council and Board.

(Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.105 Authority.**

The City Manager and the Director of Utilities shall have authority to jointly adopt policies and regulations consistent with this chapter to implement the LEAP program.

(Ord. 26698 § 7; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

**1.90.110 Interpretation.**

This Chapter shall not be interpreted or construed so as to conflict with any state or federal law, nor shall this Chapter be enforced such that enforcement results in the violation of any applicable judicial order.

(Ord. 26301 § 1; passed Oct. 6, 1998)

# LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP)

The LEAP office enforces post-award mandatory requirements. Bidders do not have to submit any information in the bid submittal package to be in compliance with LEAP.

## Post-award:

- Provide information to the LEAP Office (see LEAP contact information below). Provide the name and email address of the person(s) who will oversee LEAP utilization and payrolls.
- LEAP Employee Verification. Proof of residency may be requested for employees who may be LEAP-Qualified and may be able to help meet the LEAP Requirements.
- All certified payrolls. Prime contractor is responsible for ensuring their, and their subcontractors', payrolls are submitted via LCP Tracker. By submitting payrolls in LCP Tracker before the Labor & Industry's website, you can reduce data entry.

**The City of Tacoma's LEAP office enforces varying workforce utilization requirements based on City projects based on certain monetary thresholds and project locations.**

**Local Employment Utilization Requirement** - the Prime Contractor performing a qualifying public work or improvement must ensure that 15 percent of the total labor hours worked on the project are performed by journey or apprentice level craft workers who are residents of the City of Tacoma or Economically Distressed Zip Codes.

**Apprenticeship Utilization Requirement** – the Prime Contractor performing a qualifying public work or improvement must ensure that 15 percent of the total labor hours worked on the project are performed by apprentices who are residents of the Tacoma Public Utilities Service Area.

**\*Exceptions:** If the project is located outside of the retail service area of the Tacoma Public Utilities Service Area, then Apprentices may come from the county in which the work is performed.

**This project is subject to the:**

1. **15% Local Employment Utilization Requirement only due to the on call nature of the work.**

**LEAP staff can assist contractors in identifying qualified City of Tacoma residents, Economically Distressed Area residents, and Apprentices. Contractors may obtain further information by contacting the City's LEAP Office at (253) 591-5590. The LEAP Office is located in the Tacoma Municipal Building, 747 Market Street, Room 900, Tacoma, WA 98402.  
[www.cityoftacoma.org/leap](http://www.cityoftacoma.org/leap)**





City of Tacoma LEAP Office  
 747 Market Street, Room 900  
 Tacoma, WA 98402  
 (253) 591-5590 or leap@cityoftacoma.org  
 www.cityoftacoma.org/leap

## **LEAP EMPLOYEE VERIFICATION FORM**

**Submit upon request from LEAP Office**

Contractor/Sub: \_\_\_\_\_ Specification Number: \_\_\_\_\_

Project Description: \_\_\_\_\_

Employee Name: \_\_\_\_\_ Craft: \_\_\_\_\_

Ethnic Group (*optional*):     Asian/Pac Isl.  Black  Hispanic  Native American  White  Other

Gender (*optional*):     MALE         FEMALE

Complete Physical Address (No PO Boxes): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Telephone: \_\_\_\_\_ Date of Hire: \_\_\_\_\_

Apprenticeship County: \_\_\_\_\_ Apprenticeship Registration I.D. (*if applicable*): \_\_\_\_\_

Age: \_\_\_\_\_ Copy of DD-214: \_\_\_\_\_

**\*\*\*\*\*Please fill out entire form for tracking LEAP performance\*\*\*\*\***

LEAP qualified employee categories: (check all that apply and provide evidence for each check)

\_\_\_\_\_ a. Resident (journey level or certified apprentice) within the geographic boundaries of the City of Tacoma

\_\_\_\_\_ b. Resident (journey level or certified apprentice) within Economically Distressed ZIP Codes of the Tacoma Public Utilities Service Area

\_\_\_\_\_ c. WA State Approved Apprentice living in the Tacoma Public Utilities Service Area (Only valid for projects over \$1,000,000)

Signature of Employee: \_\_\_\_\_

Date: \_\_\_\_\_

Contractor Representative: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_

# LEAP EMPLOYEE VERIFICATION FORM

*To be Completed by Contractor or Subcontractor*

Please attach a legible copy of one or more of the following document(s) showing the address of residence as proof of local (Tacoma) and/or Economically Distressed Area and/or TPU Service Areas residency. For youth, see first line and for veteran status, see second line.

.....

\_\_\_\_\_ Driver's License with current address

\_\_\_\_\_ Utility Bill/Phone Bill/Cell Bill/Cable Bill with current address

\_\_\_\_\_ Copy of current tax form W-4

\_\_\_\_\_ Rental Agreement/Lease (residential)

\_\_\_\_\_ Computer Printout From Other Government Agencies

\_\_\_\_\_ Property Tax Records

\_\_\_\_\_ Apprentice Registration I.D.

\_\_\_\_\_ Food Stamp Award Letter

\_\_\_\_\_ Housing Authority Verification

\_\_\_\_\_ Insurance Policy (Residence/Auto)

\*Any of the above must have a complete physical address verified by the [www.govme.org](http://www.govme.org) website.

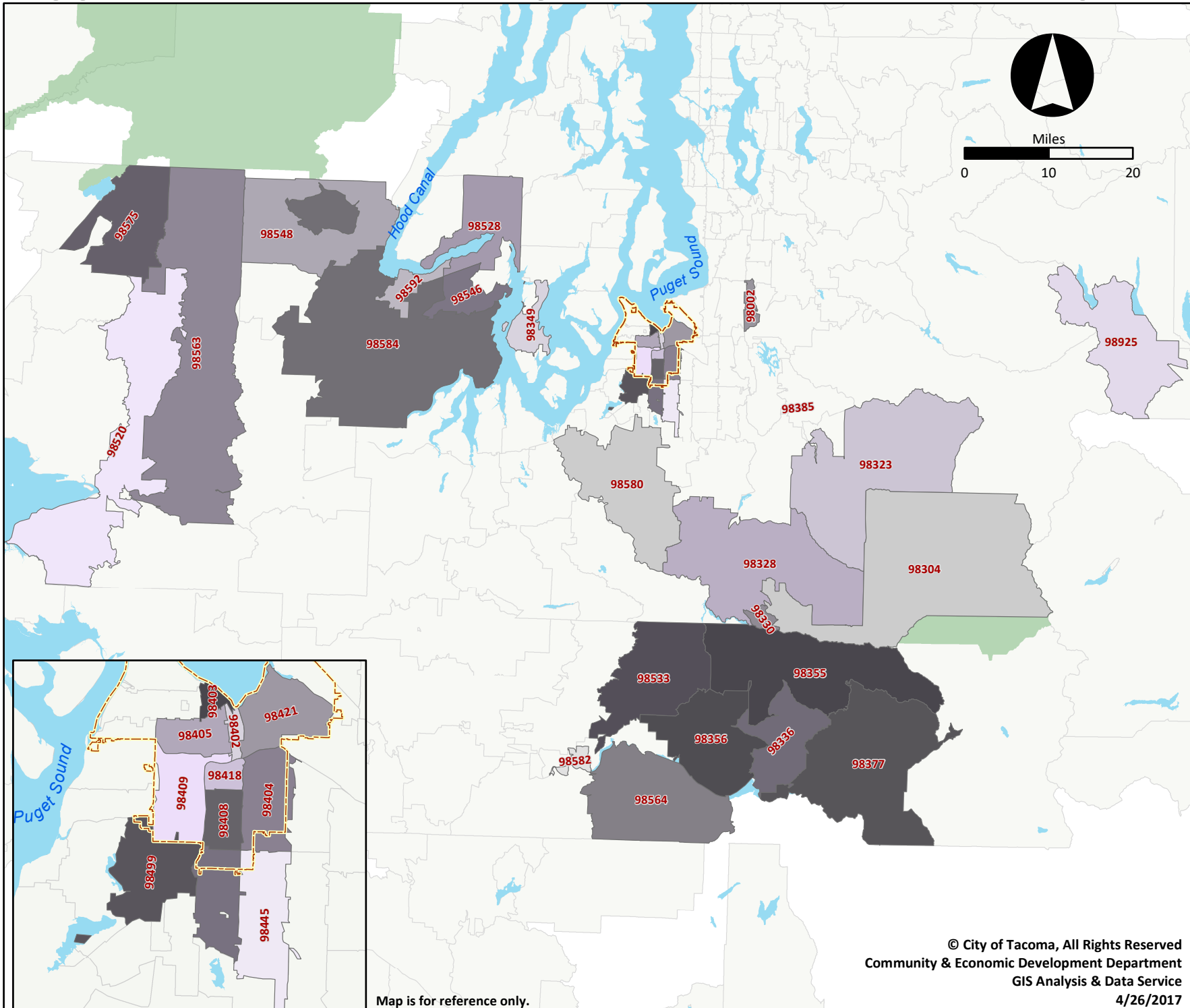
No PO Boxes

Contractor Representative: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

# Appendix C: Economically Distressed ZIP Codes Map



City Limits

- 98002
- 98304
- 98323
- 98328
- 98330
- 98336
- 98349
- 98355
- 98356
- 98377
- 98385
- 98520
- 98528
- 98533
- 98546
- 98548
- 98563
- 98564
- 98575
- 98580
- 98582
- 98584
- 98592
- 98925
- 98402
- 98403
- 98404
- 98408
- 98409
- 98418
- 98421
- 98444
- 98445
- 98499

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 Community & Economic Development Department  
 GIS Analysis & Data Service  
 4/26/2017

Map is for reference only.

Z:\R2017\7\188\Mxd\Priority Hire Zipcodes 8x11 042617.mxd Created by: aabramovich

# **LOCAL EMPLOYEE REQUIREMENT ONLY**

City of Tacoma  
(Journeyman AND Apprentice)

98402	98421
98403	98422
98404	98424
98405	98444
98406	98445
98407	98465
98408	98466
98409	98467
98418	

Check addresses here:

[https://tacoma.maps.arcgis.com/apps/webappviewer/index.html?  
id=38107f6b096a4b8280c0d9b8a05bc7eb](https://tacoma.maps.arcgis.com/apps/webappviewer/index.html?id=38107f6b096a4b8280c0d9b8a05bc7eb)

# LOCAL EMPLOYEE REQUIREMENT ONLY

Economically Distressed Areas

(Journeyman AND Apprentice)

Zip Code	200% Pov	Unemployed	25+ College	Area
98002	Y		Y	Auburn
98304	Y		Y	Ashford/Rainier
98323	Y	Y	Y	Carbonado
98328	Y		Y	Eatonville
98330	Y		Y	Elbe
98336	Y		Y	Glenoma
98349	Y	Y		Lakebay
98355		Y	Y	Mineral
98356	Y	Y	Y	Morton
98377	Y	Y	Y	Randle
98385		Y	Y	South Prairie
98402	Y	Y		Downtown
98403	Y	Y		Stadium/St. Helens
98404	Y	Y		Eastside
98405	Y	Y		Hilltop/Central
98408	Y		Y	South End
98409	Y	Y		South Tacoma
98418	Y		Y	Lincoln/South End
98421	Y	Y	Y	Port
98439	Y	Y		McChord AFB
98444	Y	Y		Parkland
98445	Y		Y	Midland
98499	Y	Y		Lakewood
98520	Y	Y	Y	Aberdeen
98528	Y		Y	Belfair
98533		Y	Y	Cinebar
98546	Y	Y	Y	Grapeview
98548	Y	Y	Y	Hoodsport
98563	Y	Y	Y	Montesano
98564	Y	Y	Y	Mossyrock
98575	Y		Y	Quinault
98580	Y		Y	Roy
98582	Y		Y	Salkum
98584	Y		Y	Shelton
98591	Y		Y	Toledo
98592		Y	Y	Union
98925	Y		Y	Easton



City of Tacoma  
Community & Economic Development  
747 Market Street, Rm 900  
Tacoma WA 98402

## CITY OF TACOMA EQUITY IN CONTRACTING (EIC) PROGRAM

### Bidders Special Instructions

As part of the City of Tacoma's ongoing work to address past disparities and to increase the City's contracting with and utilization of historically underutilized businesses, the Equity in Contracting (EIC) Program places requirements on City contracts for utilization of businesses certified by the Washington State Office of Minority and Women's Business Enterprise (OMWBE) and approved by the Equity in Contracting Program ("Certified Businesses"). The EIC Program also provides guidance and technical assistance to Certified Businesses who are interested in providing supplies, services and public works to the City of Tacoma.

The EIC Program requirements are contained in [Tacoma Municipal Code Chapter 1.07](#).

Contractors bidding on City of Tacoma projects are required to meet the stated EIC requirements. Bids will be evaluated on an individual basis to determine EIC compliance. **A contractor who fails to meet the stated EIC requirements will be considered non-responsible.** Bidders are also subject to the City's Equal Employment Opportunity policies prohibiting discrimination.

The stated EIC requirements may be met by the contractor or by identified subcontractors. All EIC Requirements may be met by using MBEs, WBEs, DBEs or SBEs from the OMWBE certified list ([OMWBE website](#)). It is the bidder's responsibility to ensure that their firm or identified subcontractors are certified by OMWBE and approved by the City of Tacoma EIC Program **at the time of bid submittal**. Business certification may be verified by contacting the EIC Office\*.

*For the OMWBE list, be sure to look for businesses in Pierce, King, Lewis, Mason, Grays Harbor, Thurston, or any counties adjacent to the county in which the work is performed per 1.07.050(2)(b-c). Contact the EIC Office\* if you have any questions.*

**The Equity in Contracting (EIC) forms included in these bid documents must be fully completed (including attachments) and included with bid submittals. Failure to include the required forms will result in the submittal being rejected as nonresponsive.**

#### **Post-Award Important Information**

**For all contracts that have requirements related to the EIC policy, the City of Tacoma is utilizing a cloud-based software system:**

**B2Gnow** - Contractors and subcontractors must report payment information in the B2Gnow System on a monthly basis. The EIC Staff will monitor/audit that retainage is paid by the prime contractor to the subcontractor(s) within 10 [working] days after the subcontractors' work is satisfactorily completed. This will be monitored/audited using the B2Gnow System.

The system is monitored/audited by EIC staff to ensure contract compliance, proactively identify potential issues, and track contract progress.

**\*EIC STAFF Contact Information**

**For questions regarding Certifications, EIC Compliance and B2GNow support, contact EIC Staff:**

- **Call EIC Office** at (253) 591-5630 or (253) 591-5826
- **Email EIC Office** at [EICOffice@cityoftacoma.org](mailto:EICOffice@cityoftacoma.org)

# **CITY OF TACOMA**

## **EQUITY IN CONTRACTING (EIC) PROGRAM REGULATIONS**



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## I. Introduction

Tacoma Municipal Code (TMC) Chapter 1.07 authorizes the City of Tacoma’s Equity in Contracting (EIC) Program (Program) to address the historical underutilization and lack of participation of small, women and minority owned businesses in City contracts for supplies, services, and public works. TMC 1.07.040 authorizes the Community and Economic Development Department (CEDD) Director to adopt these administrative EIC Program Regulations (Regulations).

For questions, observations or recommendations related to these Regulations, please contact the EIC office at (253) 591-5826 or by email at [EICoffice@cityoftacoma.org](mailto:EICoffice@cityoftacoma.org).

## II. Objectives, Applicability and Overall Annual EIC Goal

The purpose of the EIC Program and of these Regulations is to advance the policy set forth in TMC 1.07.010: to “facilitate a substantial procurement, education, and mentorship program designed to promote equitable participation by historically underutilized businesses in the provision of supplies, services, and public works to the City.” These Regulations are intended to aid and guide City staff, Certified Businesses, Contractors and Suppliers and other stakeholders, to ensure the Program is implemented clearly and consistently and to encourage, facilitate and assist the participation of Certified Businesses in City of Tacoma contracts.

The current annual EIC goal is 20%, which was reached by utilizing [the City of Tacoma’s most recent disparity study](#) to determine the level of Certified Business participation in City Contracts expected in the absence of persistent effects of discrimination. The dollar value of all contracts awarded to or performed by Certified Businesses shall be counted toward the annual EIC goal. The EIC goal may be updated or changed in alignment with future disparity studies.

Currently the EIC Program is requiring participation by Certified Businesses only on contracts for public works. The Program is intended to apply to all City contracts for supplies, services, and public works (other than those contracts subject to exemption, exception, or waiver) and these Regulations will be updated as the City develops specific requirements and processes for Certified Business participation in contracts for supplies and services.

### III. Definitions

Terms used in these Regulations shall have the following meanings unless defined differently in Tacoma Municipal Code Chapter 1.07, in which case the definition contained in TMC controls

**“B2Gnow”** is the system utilized by the City of Tacoma Equity in Contracting (EIC) Staff to track payments to Contractors and all Subcontractors on all Public Works and Improvements projects including Equity in Contracting (EIC) Requirements.

**“Bid”** means an offer submitted by a Respondent to furnish Supplies, Services, and/or Public Works in conformity with the Specifications and any other written terms and conditions included in a City request for such offer.

**“Bidder”** means an entity or individual who submits a Bid, Proposal or Quote. See also “Respondent.”

**“Certified Business”** means an entity that has been certified as a Disadvantaged Business Enterprise (“DBE”), Small Business Enterprise (“SBE”), Minority Business Enterprise (“MBE”), Women Business Enterprise (“WBE”), or Minority and Women’s Business Enterprise (“MWBE”) by the Washington State Office of Minority and Women’s Business Enterprise.

**“City”** means all Departments, Divisions, and agencies of the City of Tacoma.

**“Change Order”** means a reduction or change to the contracted scope of work potentially affecting the Equity in Contracting Requirements initially set on a project.

**“Contract”** means any type of legally binding agreement regardless of form or title that governs the terms and conditions for procurement and performance of Public Works and Improvements and/or Non-Public Works and Improvements, Supplies and Services.

**“Contractor” or “Supplier” or “Bidder”** means any Person that presents a Submittal to the City, enters into a Contract with the City, and/or performs all or any part of a Contract awarded by the City, for the provision of Public Works, or Non-Public Works and Improvements, Supplies or Services.

**“Disparity Study”** is a study that determines whether a government entity, either in the past or currently, engages in exclusionary practices in the solicitation and award of contracts to small, minority, women-owned, and disadvantaged business enterprises. The primary goal of the study is to assess, quantify, and evaluate the prevalence, significance (degree and weight) and scope of discrimination in the marketplace.

**“Exception” or “Exemption”** means the limited circumstances in which EIC Requirements do not apply or will not be applied to a Contract.

**“EIC Manager”** is the individual authorized by TMC to administer the Equity in Contracting Program.

**“EIC Requirements” or “Contract Requirements”** are the specified Requirements for Certified Business participation applied to a Contract using the EIC Requirements Setting Methodology.

**“EIC Requirement Setting Methodology”** is as defined in Appendix No. 1 to these Regulations.

**“EIC Staff”** means Equity in Contracting Program staff.

**“Exception Request”** means a request that no EIC requirements be applied to a Contract. See Appendix No. 3 to these Regulations.

**“Goal”** means the annual level of participation by Certified Businesses in City Contracts as established in The Tacoma Municipal Code TMC 1.07.020G, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations.

**“LCPtracker”** is the system used by the Local Employment and Apprenticeship Program (LEAP) Staff to monitor compliance with LEAP workforce utilization requirements and prevailing wage law.

**“Non-Public Works and Improvements”** means procurement of and contracting for Supplies and/or Services not solicited as Public Works.

**“Notice of physical completion”** means all physical work is done and the contractor has left the site. However, there may still be some outstanding paperwork or documentation remaining.

**“Notice of substantial completion”** means all physical work is complete except for punch list items. Only minor incidental work remains, such as minor corrections or repairs.

**“Person”** means individuals, companies, corporations, partnerships, associations, cooperatives, any other legally recognized business entity, legal representative, trustee, or receivers.

**“Program Manager”** means the individual appointed by the City’s Community and Economic Development Director to administer the Program and these Regulations.

**“Program Regulations” or “Regulations”** means these Regulations.

**“Project Delivery Team”** refers to the City of Tacoma personnel working on the project from the Department or Division awarding and administering the Contract.

**“Proposal”** means a written offer to furnish Supplies or Services in response to a Request for Proposals. This term may be further defined in the Purchasing Policy Manual and/or in competitive solicitations issued by the City.

**“Public Works (or “Public Works and Improvements)”** means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the City, or that is by law a lien or charge on any property therein, as is defined in RCW Chapter 39.04 and as may be hereinafter amended. This term includes all Supplies, materials, tools, and equipment to be furnished in accordance with the Contract for such work, construction, alteration, repair, or improvement.

**“Responsive or Responsible Bidder”** is as defined within the City of Tacoma Purchasing Policy.

**“Quote”** means a competitively solicited written offer to furnish Supplies or Services by a method of procurement that is less formalized than a Bid or a Proposal.

**“Respondent”** means any entity or Person that provides a Submittal in response to a Request for Bids, Request for Proposals, Request for Qualifications, Request for Quotes or other request for information, as such terms are defined in TMC Chapter 1.06 and in Purchasing Policy and Procedures.

**“Requirements”** means the level of required participation by Certified Businesses in City Contracts as established by TMC Chapter 1.07, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations.

**“Services”** means non-Public Works and Improvements services and includes professional services, personal services, and purchased services, as such terms are defined in Chapter 1.06. TMC and in Purchasing Policy and Procedures.

**“Specification”** means the document and any subsequent addenda, including terms and conditions that describes the physical or functional characteristics, or the nature of the required Supplies, Services, or Public Works; commonly referred to as the Bid document or Bid Specification.

**“Submittal”** means Bids, Proposals, Quotes, Qualifications, or other information submitted in response to Requests for Bids, Requests for Proposals, Requests for Qualifications, Requests for Quotations, or other City requests for information, as such terms are defined in Chapter 1.06 TMC and in Purchasing Policy and Procedures.

**“Supplies”** means materials, supplies, and other products that are procured and contracted for by the City.

**“Tacoma Public Utilities Service Area”** means any ZIP code in which Tacoma Public Utilities maintains infrastructure or provides retail services.

**“Undue hardship”** means an action that places a significant burden on a business.

**“Waiver”, with regards to the Post-Bid EIC Waiver Process,** means a discretionary decision made by the City after Bids are received that EIC Requirements, in whole or in part, will not be applied to a Contract or Contracts.

## IV. Exemptions or Exceptions to EIC Program Requirements

### A. Contracts that are not competitively solicited by the City of Tacoma.

No EIC Requirements will apply to contracts awarded in the manners listed below. These contracts are exempt from EIC Requirements, and no Exception Request is needed to be completed:

1. **Emergency** (TMC 1.06.257.C). Situations where breakage or loss of equipment has or is about to interrupt necessary services, where public health or safety may be jeopardized, or when required by regulatory agency, or state law. If the supplies, services, or public works must be provided with such immediacy that neither the City nor the contractor can comply with the EIC Requirements, none will be applied. Such emergency will be deemed

documented whenever a waiver of competitive solicitation for emergency situations is authorized under Tacoma Municipal Code Chapter 1.06.257 or as may be hereinafter amended.

2. **Sole Source** (TMC 1.06.257.A and 1.06.258). If the supplies, services, or public works are available from only one feasible source, and subcontracting possibilities do not reasonably exist as documented by the Department or Division awarding the Contract. Such circumstance is documented by the approval of the Procurement and Payables Division Manager or delegee and for Contracts where the estimated cost is over \$500,000 (excluding sales tax) by the approval of the Contracts and Awards (C&A) Board.
3. **Not Practicable to Bid** (TMC 1.06.257.B). An immediate and important need for proposed construction, installation, repair, materials, supplies, equipment, or services where the delay that would result from following competitive solicitation process would cause financial loss to the City or an interruption of vital services to the public. Such circumstance is documented by the approval of the Procurement and Payables Division Manager or delegee and for Contracts where the estimated cost is over \$500,000 (excluding sales tax) by the approval of the C&A Board.
4. **Direct Solicitation and Negotiation** (1.06.256.B). Contracts for Professional or Personal Services, excluding architectural and engineering services. When City Manager or Director of Utilities or their delegees determine use of direct solicitation and negotiation process to be in the best interests of the City no EIC requirements will be applied to the resulting contract.
5. **Government or Cooperative Purchasing**.  
The Contract is the result of a federal, state, or inter-local government purchasing agreement and the use of such agreement in lieu of a bid solicitation conducted by the City is in accordance with TMC Chapter 1.06 and Purchasing Policy and Procedures.

## B. Lack of Certified Businesses

If it is determined there are an insufficient number of Certified Businesses to perform the work scopes listed in the Contract, no EIC Requirement will be applied. The process for requesting and approving an exception for lack of Certified Businesses is as follows:

1. If after Program review of a project using the established EIC Requirement setting methodology, it is determined by EIC Staff that there will be an insufficient number (3 or less) of Certified Business available to meet the requirement, EIC Staff sends an Exception Request to EIC Manager for review and approval.

2. If, after EIC Staff has set EIC Requirements on a project, the Project Delivery Team determines that additional information justifies an exception for lack of Certified Business, the Project Delivery Team sends an Exception Request via email to the EIC Team who will then forward it to the EIC Program Manager with necessary project background information for final review and approval.

## C. Public Works and Improvement Projects with a Value of \$150,000 or Less

EIC Requirements will not be set on public works and improvement projects with an engineer's estimate value of \$150,000 or less. However, EIC Staff will collaborate with the Project Delivery Team to proactively outreach to Certified Businesses and provide technical assistance to encourage participation.

## D. Documentation of Granted Exceptions

All exceptions must be documented in the Program's reporting and goal spreadsheet database. Analysis will be done by the EIC Manager to understand what measures the City can take to ensure that exceptions to the EIC Requirements occur only when necessary.

# V. EIC Requirements for Contracts for Public Work

All City contracts for Public Work – except for projects with an engineer's estimate value of \$150,000 or less – are subject to EIC Requirements. In no case will EIC Requirements exceed a total of 20 percent (20%) of the Engineer's estimate. If a contract is federally funded, any federal program supersedes the Equity in Contracting Program and these regulations.

## A. EIC Pre-Award Process

### 1. EIC Contract Requirements Set

Using the EIC Requirements Setting Methodology contained in Appendix No. 1 to these Regulations, EIC Staff will set requirements for the use of Certified Businesses using two potential options.

**Option 1:** EIC Staff applies three (3) separate requirements (MBE, WBE, SBE) in accordance with the EIC Requirements Setting Methodology. Each stated Requirement must be fulfilled by using the specified category of Certified Business.

**Option 2:** If after setting the EIC Requirements, reviewing the OMWBE directory, and discussing with the Project Delivery Team, it is determined that fulfilling each requirement separately might present undue hardship for contractors, EIC staff will apply an overall EIC Requirement. The overall EIC Requirement is the sum of the 3 separate requirements initially established as a result of using the EIC Requirement Setting Methodology. Under Option 2 Bidders can use any combination of MBEs, WBEs, SBEs or DBEs to fulfill the overall EIC Requirement.

Staff guidance for determining if an overall EIC Requirement Option 2 is appropriate can be found in Appendix No. 2 to these Regulations.

After utilizing Option 1 or Option 2 to set the EIC Requirements, EIC staff will send an EIC Memo to the Project Delivery Team informing of the EIC Requirements for the project.

## B. EIC Bid Review Process

Contracts for Public Work must be awarded to the lowest responsive and responsible Bidder. EIC Program Staff conducts a review of Submittals for EIC compliance.

### 1. Review for Bidder Responsiveness

- i. Bids must list Certified Businesses. If a listed business is not certified with OMWBE as of the date of bid opening the bid will be recommended to be rejected as non-responsive.
- ii. All sections of the EIC Utilization form located in Appendix No. 3 to these Regulations must be completed according to the stated instructions and the properly completed form must be included with bid submittal.
- iii. Submittals that do not include a properly completed EIC Utilization form will be recommended by EIC Staff to be rejected as non-responsive bids. To be considered “completed”, the required forms must be filled out with all the information required to be provided. No fields should be left incomplete or designated N/A or otherwise lacking a required response. EIC Staff reserves the right to make minor non-material corrections to the form, such as to correct obvious data entry errors. No corrections will be made that alter the proposed Certified Business participation percentages and dollar amounts.
- iv. The work description for each Certified Business listed on the EIC Utilization form must match the Certified Business’s OMWBE Profile. This ensures that the Certified Business is able to complete the work scope or role for which they have been listed.
- v. Bidder must contact and solicit bids from Certified Businesses prior to listing them on the EIC Utilization Form and prior to bid submittal. EIC Staff will contact all listed Certified Businesses. If a listed Certified Business has not been contacted by the Bidder prior to being listed, the bid will be rejected as non-responsive.



## 2. Review for Bidder Responsibility

- i. The EIC Utilization Form must demonstrate that the bidder has obtained enough EIC participation to meet or exceed the EIC Requirements for that contract. Submittals that do not meet or exceed the stated requirements will be recommended to be rejected as non-responsible bids.

## 3. Self-Performing Bidders

Bidders who are themselves Certified Businesses can meet the EIC requirements by self-performance. When a Certified Business is the prime bidder, an adjustment may be made to the EIC Requirements. In such cases, the self-performing Certified Business can be found to be a responsible bidder even if the bid did not satisfy all three stated EIC Requirements (SBE, MBE and WBE). For example, if a bidder is certified as an MBE and an SBE, the WBE Requirements may be deemed waived since the Contractor's self-performance as an MBE and an SBE achieves the total Requirement.

## 4. EIC Recommendation

- i. If the apparent low bidder is deemed non-responsive or non-responsible, EIC Staff will review the next lowest bidder's submittal.
- ii. Once EIC Staff has reviewed the EIC portion of the submittal, a bid review memo is sent to the Project Delivery Team to notify them of the status of the apparent low bidder and will include any recommendation to reject submittals as non-responsive or non-responsible.

## VI. Post-Bid EIC Waiver Requests Process

Per TMC 1.07.060 (C), if, after receipt of submittals but prior to Contract award, it is determined that due to unforeseen circumstances (which may be demonstrated by bidder(s) failure to meet the stated Requirements) waiver of the stated EIC Requirements in whole or in part for the project is in the best interest of the City, the Director or Superintendent of the Project Delivery Team may request the stated EIC Requirements be waived in full or in part.

The waiver request must be made using the EIC Waiver Request Form shown in Appendix No. 4 to these Regulations and initiated by the applicable Director or Superintendent of the Project Delivery Team. The form is then forwarded to the Procurement and Payables Division Manager for review and signature,

followed by the City Manager or the Director of Utilities for review and signature. EIC Staff notifies the Project Team of the decision made.

If the Waiver Request is approved by the City Manager or Utilities Director, any new EIC Requirements will be equal to the EIC Utilization percentage listed on the successful bidder's EIC Utilization form (which could be zero).

If the Waiver Request is not approved by the City Manager or Utilities Director, the Project Delivery Team must re-bid the project or award to the next lowest bidder who has satisfied the stated EIC Requirements.

In all instances where a Waiver is approved by the City Manager or Utilities Director, analysis will be done by the EIC Manager to understand what measures the City can take to ensure that waivers of the EIC requirements are granted only when absolutely necessary.

## VII. EIC Contract Monitoring and Compliance

All contracts will be monitored by the Program to ensure compliance with the stated EIC Requirements throughout the term of the Contract including as follows:

### A. Coordination between Project Delivery Team and Program

During the term of the contract, the Project Delivery Team will include EIC Staff in the pre-bid, pre-construction, and progress meetings. Additionally, the Project Delivery Staff will send Contract & Award (C&A) Letters, Notice to Proceed and Notice of Physical Completion to EIC Staff.

### B. Utilization of B2Gnow System

1. Once EIC Staff receives the Notice to Proceed, the Project is created in B2Gnow.
2. Once the Project has been created in B2Gnow by EIC Staff, a letter is automatically sent from B2Gnow to the Contractor and all Certified Businesses included in the project to notify them of the new project and what is expected of them in the B2Gnow System.
3. Contractors must utilize B2Gnow by entering their monthly payment reports in the system. EIC Staff tracks EIC utilization by ensuring all payment reports are entered monthly by the Project Delivery Team and the Contractor and payments are confirmed by the Subcontractors.

## C. B2Gnow Monitoring

### 1. Prompt Payment

For the full lifecycle of the project, on a monthly basis, EIC Staff must ensure the following actions have occurred in the B2Gnow system:

- a. The Department/Division in charge of the contract has entered payment submitted to the Contractor.
- b. The Contractor has entered payments submitted to all Certified Businesses.
- c. The Certified Businesses have confirmed prompt receipt of payments from the Contractor for work performed. In compliance with the WA State Legislature Revised Code of WA (RCW) 39.04.250 (1) \*, EIC Staff will verify that subcontractors are paid no later than 10 days after the Prime receives payment from the City of Tacoma Department/Division in charge of the contract.

\*RCW 39.04.250 (1) "When payment is received by a contractor or subcontractor for work performed on a public work, the contractor or subcontractor shall pay to any subcontractor not later than ten days after the receipt of the payment, amounts allowed the contractor on account of the work performed by the subcontractor, to the extent of each subcontractor's interest therein.

2. If the above actions have not taken place or if there are any discrepancies in the system, EIC Staff will reach out to the parties involved via a notice generated from the B2Gnow System, via email or via phone call to address any discrepancies. Any notes related to the projects will be entered in the B2Gnow system.
3. For support using B2GNow, please contact EIC Staff at (253) 591-5826 or email at [EICoffice@cityoftacoma.org](mailto:EICoffice@cityoftacoma.org).

## D. Contractor Request for Certified Business Termination and Substitution

A Contractor's noncompliance by failure to utilize a Certified Business required by the Contract can be excused if Contractor has properly requested to terminate, reduce, or substitute the participation of a Certified Business on an awarded Contract and such request has been approved by the EIC Program consistent with TMC 1.07.080 A. The process for termination and substitution request and approval is initiated by the Contractor following the instructions outlined in the EIC Certified Business Termination and Substitution Form located in Appendix No. 5 to these Regulations.

Upon receipt of the completed EIC Certified Business Termination and Substitution Form, the Project Delivery Team will forward the request to EIC Staff along with supporting documentation received from the Contractor.

**1. EIC Staff will proceed with the following steps:**

- a. Review the request, including any response or objection from the Certified Business, to determine if the grounds for termination (or substitution) contained in TMC 1.07.080 A 1 (Certified Business refusal to execute necessary agreements with Contractor, Certified Business defaults on agreements with Contractor or other reasonable excuse) and the process required by these Regulations have been satisfied. EIC staff review will utilize the criteria for reasonable excuse contained in these Regulations.
- b. Contact the Certified Business(es) proposed to be terminated as well as the Certified Business(es) proposed to be substituted.
- c. If Contractor has indicated on the Certified Business Termination and Substitution Form that it does not have a substitution plan, EIC staff will review the Contractor's explanation for not proposing a substitute Certified Business according to the criteria in TMC 1.07.080 A 2. Where it is shown by Contractor that no other Certified Business is available as a substitute and that failure to secure participation by the Certified Business identified in the solicitation is not the fault of the Contractor, EIC staff will approve substitution with a non-Certified Business; provided, that, the substitution does not increase the dollar amount of the bid.
- d. If EIC staff determines that the process has been followed and that one or more of the grounds in TMC 1.07.080 have been satisfied to allow termination and substitution, the Contractor will be notified of the approval.
- e. Contractor has 3 business days of receipt of the approved termination request to confirm to EIC Staff that it has substituted with another Certified Business, or with a non-Certified Business if the EIC Program has approved.

If the Termination and Substitution Request submitted by the Contractor is denied, the Contractor must utilize the Certified Business on the project as initially listed on the EIC Utilization form or be found in noncompliance.

**2. Reasonable justifications for Termination**

For purpose of the EIC Program, reasonable justifications for termination are included in this list below but not limited to:

- a. The listed Certified Business refuses or fails to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that reasonable excuse does not exist if the failure of the Certified Business to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor.
- b. Failure or refusal of the Certified Business to perform work for reasons other than contract term or pricing disputes.

- c. The listed Certified Business fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements.
- d. The listed Certified Business is ineligible to work on City of Tacoma projects because of suspension or debarment.
- e. The listed Certified Business voluntarily withdraws from the project and provides The City of Tacoma written notice of its withdrawal.
- f. Death or disability of the principal of the Certified Business rendering it unable to perform the work.
- g. Dissolution of the Certified Business.
- h. A change in scope of the contract requested by the City which removes the work scope for the Certified Business from the project.
- i. The Certified Business does not execute an offered contract that reflects the terms and pricing agreed upon as a condition of participation in the project. The Contractor must provide evidence that the Certified Business failed to execute a contract offered which reflected such agreements, after the Certified Business was given adequate time to execute the offered contract.

### **3. Decertification**

When a Certified Business is "decertified" by OMWBE the participation of that Certified Business shall continue to count as EIC participation so long as the subcontract with the Certified Business was executed prior to the effective date of decertification.

If the Certified Business did not have an executed contract with the Contractor at effective date of decertification, the Contractor must demonstrate to the satisfaction of the Project Delivery team and to the EIC Program that it has substituted a different Certified Business.

## VIII. NON-COMPLIANCE: FINDING OF VIOLATION AND PENALTIES

### A. Circumstances for finding a Contractor in Violation

The following circumstances, if found by the EIC Program Manager, are grounds for a determination by the Community and Economic Development Department (CEDD) Director of Contractor violation and a recommendation by the CED Director to the City Manager or the Director of Utilities that a penalty be imposed consistent with TMC 1.07.010:

1. A Contractor's failure to utilize a Certified Business required by an awarded Contract (unless the Certified Business participation is properly terminated or substituted by application of the process contained in these Regulations) for at least the corresponding dollar amount listed on the submitted EIC Utilization Form.
2. A Contractor's failure to utilize the B2Gnow system in the manner required by these Regulations. Before a violation will be found for Contractor's failure to utilize B2Gnow the following process steps will be taken:
  - a. If a Contractor does not report payment in the B2Gnow system within the first 2 months of the start of the project, EIC Staff will give the Contractor a verbal notice, followed by an email offering assistance with B2Gnow if needed.
  - b. If in the third month following the start of the project Contractor still does not report payment in the B2Gnow system EIC Staff will send a second notice via email with a copy to the Project Delivery Team.
  - c. If the Contractor has failed to report payment in the B2Gnow system within 14 days of the second notice, a third notice will be sent with a copy to the Project Delivery Team.
  - d. If after three notices, Contractor fails to report payment in the B2Gnow system, EIC Staff will notify the Project Delivery Team that the EIC Staff intends to recommend to the City Manager or Utilities Director that a violation be found, and a penalty imposed.
3. A Contractor's failure to pay their subcontractor within 10 days after receipt of payment per RCW 39.04.250 (1)
  - i. If a contractor fails to pay their subcontractor within 10 days, EIC Staff will send 3 notices (via email).

- ii. If after three notices Contractor fails to pay their subcontractor, EIC Staff will notify the Project Delivery Team that the EIC Staff intends to recommend to the City Manager or Utilities Director that a violation be found, and a penalty imposed.

## B. Contractor Non-Compliance, Finding of Violation and Enforcement

If the EIC Program Manager, in collaboration with the Project Delivery Team, determines a Contractor is non-compliant with the EIC Requirements of the Contract or any other requirements contained in TMC Chapter 1.07 or these Regulations and therefore in violation of the EIC Program requirements, the following process for enforcement will be followed:

1. EIC Staff will send a Notice of Violation to the Contractor via USPS Certified Mail®, with a courtesy copy sent to Contractor via email and with a copy to the Project Delivery Team. The Notice of Violation will specify the non-compliance that is the basis for the finding of violation and will state the City's intent to exercise all applicable remedies, including penalties authorized by TMC 1.07.110.
2. The Notice of Violation will specify that the Contractor can appeal the finding of Violation to the Hearing Examiner pursuant to Chapter 1.23 TMC and will state that, unless appealed or remedied, each specified violation becomes final on the 10th business day from the day the Notice has been received by the Contractor.
3. The Notice of Violation will inform the Contractor that the Violation may be remedied, and no penalty will be sought, if, within 10 business days of the date of the Notice of Violation, the Contractor achieves compliance or submits a plan to achieve compliance and receives EIC Staff approval of the plan. A document for guidance on how to achieve compliance can be located in Appendix No. 6 to these Regulations.
4. Compliance plans shall be submitted to EIC Staff and reviewed by EIC Staff and the Project Delivery Team. EIC Staff will recommend valid compliance plans to the CEDD Director for approval.
5. If the Contractor does not respond to the notice by achieving compliance or by appealing the violation within 10 days or if Contractor's timely submitted compliance plan is not approved, the EIC Program Manager in collaboration with the CEDD Director and the Project Delivery Team will request the City Manager or Director of Utilities to impose one or more of the following penalties contained in TMC 1.07.110 A.
  - a. Publish notice of the contractor's noncompliance on the [City of Tacoma Equity in Contracting webpage](#).
  - b. Cancel, terminate, or suspend the contractor's contract, or portion thereof.
  - c. Withhold funds due contractor until compliance is achieved; and/or

- d. Disqualification of eligibility for future contract awards by the City (debarment) per Section 1.06.279 TMC.
- e. Other appropriate recommended penalty

6. Approval of City Manager or Director of Utilities to Impose Penalties

- a. The EIC Program Manager and CEDD Director will utilize the Prime Contractor Sanction Request Form found in Appendix No. 6 to these Regulations to inform the City Manager or the Director of Utilities that a Notice of Violation has become final (not appealed, not remedied by compliance or an approved compliance plan) and request the City Manager or Director of Utilities to approve the recommended penalty authorized by TMC 1.07.110 and/or to impose any different or additional appropriate penalty.
- b. If the request for penalty is approved, the EIC Staff will notify the Contractor and the Project Delivery Team of the imposition of the penalty by sending the Prime Contractor Notice of Violation form contained in Appendix No. 7 to these Regulations to the Contractor by US Mail and with a courtesy copy sent by email. The Notice of Penalty form will inform the Contractor that the stated penalty becomes effective on the tenth business day following receipt of the Notice of Penalty unless Contractor appeals the penalty to the Hearing Examiner pursuant to Chapter 1.23 TMC or achieves compliance.

7. Publication of Contractor's Non-Compliance

If the penalty of publication of notice of Contractor's noncompliance (TMC 1.07.110 A 2) is imposed, the non-compliant Contractor's firm name and the nature of the violation will be posted on the City of Tacoma Equity in Contracting Program website [Equity in Contracting – City of Tacoma](#).

8. Cancellation of Penalty upon approved Contractor's Correction of Violation

- a. A Contractor has 10 business days from receipt of a Notice of Penalty to achieve compliance or submit a plan to achieve compliance. EIC Staff in consultation with the Project Delivery Team will determine if compliance is achieved or if the compliance plan is recommended for approval by the CEDD Director.
- b. If it is determined that the Contractor has come into compliance with the EIC Requirements, or has an approved plan to achieve compliance, the penalty may be cancelled at the discretion of the CEDD Director.
- c. If a penalty is cancelled, other applicable steps will follow. For example, if the Contract had been suspended, it will be resumed. If notice of Contractor's violation has been published, the notice will be removed from City's website. If funds have been withheld, payments will be resumed etc.



- d. If Contractor's compliance plan is not approved, the penalty will remain in place, however, EIC Staff will continue to work with Contractor and Project Delivery Team to attempt to achieve compliance.

## IX. EIC Project Closeout Process

Upon receipt of notice from the Project Delivery Team that the project is physically completed, EIC Staff will:

- A. Run B2Gnow Contract Summary Report to ensure that EIC Contract Requirements have been satisfied.
- B. Check with Local Employment & Apprenticeship Training Program (LEAP) Staff to ensure LEAP Requirements have been satisfied and the project is ready to close on LCPtracker.
- C. If EIC Contract Requirements are not met, EIC Staff will contact the Contractor via email with copy to the Project Delivery Team and request the Contractor provide an explanation in writing of the discrepancy between EIC Contract Requirements and the final outcomes via email to the Project Delivery Team and to EIC Staff at [EICOffice@cityoftacoma.org](mailto:EICOffice@cityoftacoma.org). EIC Staff and the Project Delivery Team will review and file explanation in B2Gnow files.
- D. If Contract Requirements are not met by the final outcomes and Contractor's explanation for the discrepancy is not satisfactory EIC Staff and the Project Delivery Team may recommend a violation be found and penalty requested.
- E. If Contract Requirements are met, send email to Contractor from [EICOffice@cityoftacoma.org](mailto:EICOffice@cityoftacoma.org) with a copy to the Project Delivery Team.

## X. Certified Business Complaint Process

- A. A Certified Business may submit a complaint regarding any EIC related issues utilizing three options listed below:
  - By sending an email to the EIC Staff at [EICoffice@cityoftacoma.org](mailto:EICoffice@cityoftacoma.org).
  - By filling out the EIC Complaint Form available on [The City of Tacoma Equity in Contracting webpage](#). See EIC Complaint Form as shown at Appendix No. 9 to these Regulations.
  - By calling the EIC Office line at (253) 591-5630

When a complaint has been received, EIC Staff will take the following steps:

- Record the complaint in the EIC Complaint log Database
- Send a message to the complainant acknowledging the receipt and recording of the complaint and informing complainant that an investigation will take place.
- As deemed appropriate, perform an investigation
- If an investigation is conducted, a report will be produced including a timeline of events and findings.
- Submit any final report to the EIC Program Manager for action as appropriate.

# **APPENDICES**

Available upon request to [EICOffice@cityoftacoma.org](mailto:EICOffice@cityoftacoma.org)

- 1. EIC Requirement Setting Methodology**
- 2. Guidance on selecting Option 2: EIC overall Requirements**
- 3. EIC Utilization Form**
- 4. EIC Post Submittal Waiver Request Form**
- 5. EIC Certified Business Termination and Substitution Request**
- 6. EIC Guidance on Compliance Achievement Plan**
- 7. Notice of Contractor's Violation Form**
- 8. EIC Sanction(s) Request Form**
- 9. Subcontractor Complaint Form**

## CHAPTER 1.07 EQUITY IN CONTRACTING

### Sections:

- 1.07.010 Policy and purpose.
- 1.07.020 Definitions.
- 1.07.030 Discrimination prohibited.
- 1.07.040 Program administration.
- 1.07.050 *Repealed.*
- 1.07.060 Program requirements.
- 1.07.070 Evaluation of submittals.
- 1.07.080 Contract compliance.
- 1.07.090 Program monitoring.
- 1.07.100 Enforcement.
- 1.07.110 Remedies.
- 1.07.120 Unlawful acts.
- 1.07.130 Severability.
- 1.07.140 Review of program.

### **1.07.010 Policy and purpose.**

It is the policy of the City of Tacoma that citizens be afforded an opportunity for full participation in our free enterprise system and that historically underutilized business enterprises shall have an equitable opportunity to participate in the performance of City contracts. The City finds that in its contracting for supplies, services and public works, there has been historical underutilization of small and minority-owned businesses located in certain geographically and economically disfavored locations and that this underutilization has had a deleterious impact on the economic well-being of the City. The purpose of this chapter is to remedy the effects of such underutilization through use of narrowly tailored contracting requirements to increase opportunities for historically underutilized businesses to participate in City contracts. It is the goal of this chapter to facilitate a substantial procurement, education, and mentorship program designed to promote equitable participation by historically underutilized businesses in the provision of supplies, services, and public works to the City. It is not the purpose of this chapter to provide any person or entity with any right, privilege, or claim, not shared by the public, generally, and this chapter shall not be construed to do so. This chapter is adopted in accordance with Chapter 35.22 RCW and RCW 49.60.400.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.020 Definitions.**

Terms used in this chapter shall have the following meanings unless defined elsewhere in the Tacoma Municipal Code (“TMC”), or unless the context in which they are used clearly indicates a different meaning.

#### 1.07.020.B

A. “Bid” means an offer submitted by a Respondent to furnish Supplies, Services, and/or Public Works in conformity with the Specifications and any other written terms and conditions included in a City request for such offer.

B. “Bidder” means an entity or individual who submits a Bid, Proposal or Quote. See also “Respondent.”

#### 1.07.020.C

“Certified Business” means an entity that has been certified as a Disadvantaged Business Enterprise (“DBE”), Small Business Enterprise (“SBE”), Minority Business Enterprise (“MBE”), Women Business Enterprise (“WBE”), or Minority and Women’s Business Enterprise (“MWBE”) by the Washington State Office of Minority and Women’s Business Enterprise.

“City” means all Departments, Divisions and agencies of the City of Tacoma.

“Contract” means any type of legally binding agreement regardless of form or title that governs the terms and conditions for provision of supplies, services, or public works to the City. Contracts include the terms and conditions found in Specifications, Bidder or Respondent Submittals, and purchase orders issued by the City.

“Contractor” means any Person that presents a Submittal to the City, enters into a Contract with the City, and/or performs all or any part of a Contract awarded by the City, for the provision of Public Works, or Non-Public Works and Improvements, Supplies or Services.

1.07.020.G

“Goals” means the annual level of participation by Certified Businesses in City Contracts as established in this chapter, the Program Regulations, or as necessary to comply with applicable federal and state nondiscrimination laws and regulations. Goals or requirements for individual Contracts may be adjusted as provided for in this chapter or in regulations and shall not be construed as a minimum for any particular Contract or for any particular geographical area.

1.07.020.N

*Reserved.*

1.07.020.P

“Person” means individuals, companies, corporations, partnerships, associations, cooperatives, any other legally recognized business entity, legal representative, trustee, or receivers.

“Program Manager” means the individual appointed, from time to time, by the City’s Community and Economic Development Director to administer the Program Regulations.

“Program Regulations” means the written regulations and procedures adopted pursuant to this chapter for procurement of Supplies, Services and Public Works.

“Proposal” means a written offer to furnish Supplies or Services in response to a Request for Proposals. This term may be further defined in the Purchasing Policy Manual and/or in competitive solicitations issued by the City.

“Public Works (or “Public Works and Improvements)” means all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the City, or that is by law a lien or charge on any property therein. This term includes all Supplies, materials, tools, and equipment to be furnished in accordance with the Contract for such work, construction, alteration, repair, or improvement.

1.07.020.Q

“Quote” means a competitively solicited written offer to furnish Supplies or Services by a method of procurement that is less formalized than a Bid or a Proposal. This term may be further defined in the Purchasing Policy Manual.

1.07.020.R

“Respondent” means any entity or Person, other than a City employee, that provides a Submittal in response to a request for Bids, Request for Proposals, Request for Qualifications, request for quotes or other request for information, as such terms are defined in Section 1.06.251 TMC. This term includes any such entity or Person whether designated as a supplier, seller, vendor, proposer, Bidder, Contractor, consultant, merchant, or service provider that; (1) assumes a contractual responsibility to the City for provision of Supplies, Services, and/or Public Works; (2) is recognized by its industry as a provider of such Supplies, Services, and/or Public works; (3) has facilities similar to those commonly used by Persons engaged in the same or similar business; and/or (4) distributes, delivers, sells, or services a product or performs a Commercially Useful Function.

1.07.020.S

“Services” means non-Public Works and Improvements services and includes professional services, personal services, and purchased services, as such terms are defined in Section 1.06.251 TMC and/or the City’s Purchasing Policy Manual.

“Submittal” means Bids, Proposals, Quotes, qualifications or other information submitted in response to requests for Bids, Requests for Proposals, Requests for Qualifications, requests for Quotations, or other City requests for information, as such terms are defined in Section 1.06.251 TMC.

“Supplies” means materials, Supplies, and other products that are procured by the City through a competitive process for either Public Works procurement or Non-Public Works and Improvements procurement unless an approved waiver has been granted by the appropriate authority.

1.07.020.T

“Tacoma Public Utilities Service Area” means any ZIP code in which Tacoma Public Utilities maintains infrastructure or provides retail services.

1.07.020.W

“Waiver” means a discretionary decision by the City that the one or more requirements of this chapter will not be applied to a Contract or Contracts.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed June. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28274 Ex. A; passed Dec. 16, 2014; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.030 Discrimination prohibited.**

A. No person that is engaged in the construction of public works for the City, engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services to the City, shall discriminate against any other person on the basis of race, religion, color, national origin or ancestry, sex, gender identity, sexual orientation, age, marital status, familial status, or the presence of any sensory, mental or physical disability, or “pregnancy outcomes” under TMC 1.29.040, in employment. Such discrimination includes the unfair treatment or denial of normal privileges to a person as manifested in employment upgrades, demotions, transfers, layoffs, termination, rates of pay, recruitment of employees, or advertisement for employment.

B. The violation of the terms of RCW 49.60 or Chapter 1.29 TMC by any person that is engaged in the construction of public works for the City, is engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services shall result in the rebuttable presumption that the terms of this chapter have also been violated. Such violation may result in termination of any City contract the violator may have with the City and/or the violator’s ineligibility for further City Contracts.

(Ord. 28859 Ex. A; passed Nov. 22, 2022; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.040 Program administration.**

A. The Community and Economic Development Director, or their designated Program Manager, shall be responsible for administering this chapter and obtaining compliance with respect to contracts entered into by the City and/or its contractors. It shall be the duty of the Director to pursue the objectives of this chapter by conference, conciliation, persuasion, investigation, or enforcement action, as may be necessary under the circumstances. The Director is authorized to implement an administrative and compliance program to meet these responsibilities and objectives.

B. The Director is hereby authorized to adopt and to amend administrative regulations known as the Program Regulations, to properly implement and administer the provisions of this chapter. The Program Regulations shall be in conformance with City of Tacoma policies and state and federal laws and be designed to encourage achievement of the Goals set forth herein.

(Ord. 28766 Ex. A; passed June. 8, 2021; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.050 Repealed by Ordinance No. 28931. Approval as a Certified Business.**

(Repealed by Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed June. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28274 Ex. A; passed Dec. 16, 2014; Ord. 28147 Ex. A; passed May 7, 2013; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.060 Program requirements.**

A. The program shall meet the following requirements:

1. Establishment of Annual Goals.

The Program Regulations adopted pursuant to this chapter shall state reasonably achievable cumulative annual goals for utilization of Certified Businesses in the provision of supplies, services, and public works procured by the City. Cumulative annual goals for the participation of Certified Businesses in City contracts shall be based on the number of qualified Certified Businesses operating within the Tacoma Public Utilities Service Area. The dollar value of all contracts awarded by the City to Certified Businesses in the procurement of supplies, services, and public works shall be counted toward the accomplishment of the applicable goal.

2. Application to Contracts.

The Program Manager shall establish department/division specific requirements for Certified Business participation in City contracts in accordance with this chapter and the Program Regulations.

B. Exceptions:

City departments/divisions or the Program Manager may request an exception to one or more of the requirements of this chapter as they apply to a particular Contract or Contracts. Exceptions may be granted in any one or more of the following circumstances:

1. Emergency:

The supplies, services and/or public works must be provided with such immediacy that neither the City nor the contractor can comply with the requirements herein. Such emergency will be deemed documented whenever a waiver of competitive solicitation for emergency situations is authorized under Tacoma Municipal Code Chapter 1.06.257 or as may be hereinafter amended.

2. Not Practicable:

The Contract involves special facilities or market conditions or specially tailored or performance criteria-based products, such that compliance with the requirements of this chapter would cause financial loss to the City or an interruption of vital services to the public. Such circumstances must be documented by the department/division awarding the Contract and approved by the senior financial manager or, for Contracts where the estimated cost is over \$500,000 (excluding sales tax), approved by the Board of Contracts and Awards (“C&A Board”).

3. Sole source:

The supplies, services, and/or public works are available from only one feasible source, and subcontracting possibilities do not reasonably exist as documented by the department/division awarding the Contract and approved by the senior financial manager or, for Contracts where the estimated cost is over \$500,000 (excluding sales tax), approved by the C&A Board.

4. Government purchasing.

The Contract or Contracts are the result of a federal, state or inter-local government purchasing agreement and the use of such agreement in lieu of a bid solicitation conducted by the City is approved by the senior financial manager.

5. Lack of Certified Businesses:

An insufficient number of qualified contractors exist to create any utilization opportunities as documented by the Program Manager.

C. Waiver:

If, after receipt of Submittals but prior to Contract award, it is determined that due to unforeseen circumstances, a full or partial waiver of requirements is in the best interests of the City, the Director or Superintendent of the department/division awarding the Contract may request in writing that the City Manager or designee, on behalf of General Government, or the Director of Utilities or designee, on behalf of the Department of Public Utilities, approve such waiver.

Waivers may be granted only after determination by the City Manager or Director of Utilities that compliance with the requirements of this chapter would impose unwarranted economic burden on, or risk to, the City of Tacoma as compared with the degree to which the purposes and policies of this chapter would be furthered by requiring compliance.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed June. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

**1.07.070 Evaluation of submittals.**

A. All submittals for supplies, services, or public works and improvements contracts shall be evaluated for attainment of the Certified Business requirements established for that contract in accordance with this chapter and the Program Regulations.

B. The determination of Certified Business usage and the calculation of Certified Business requirements per this section shall include the following considerations:

1. General.

The dollar value of the Contract awarded by the City to a Certified Business in the procurement of supplies, services, or public works shall be counted toward achievement of the annual goal.

2. Supplies.

A Contractor may receive credit toward attainment of the Certified Business requirement(s) applicable to the Contract for expenditures for supplies obtained from a Certified Business; provided such Certified Business assumes the actual and contractual responsibility for delivering the supplies with its resources. The contractor may also receive credit toward attainment of the Certified Business goal for the amount of the commission paid to a Certified Business resulting from a supplies contract with the City; provided the Certified Business performs a commercially useful function in the process.

3. Services and Public Works subcontracts.

Any Contract awarded to a Certified Business or a bidder that utilizes a Certified Business as a subcontractor shall receive credit toward attainment of the Certified Business requirement(s) applicable to the Contract based on the percentage of

Certified Business usage stated in the bid. A contractor that utilizes a Certified Business as a subcontractor to provide services or public works shall receive a credit toward the contractor's attainment of the Certified Business requirement applicable to the contract based on the value of the subcontract with the Certified Business.

C. Evaluation of competitively solicited submittals for public works and improvements and for services when a requirement has been established for the contract to be awarded shall be as follows:

1. When contract award is based on price.

The lowest priced bid submitted by a responsive and responsible bidder will be reviewed to determine if it meets the requirement. Certified Businesses may self-count utilization or self-performance on such bids if they will perform the work for the scope the requirement is based upon. The Program Regulations may establish further requirements and procedures for self-utilization or self-performance by a bidder who is a Certified Business.

a. If the low bidder meets the stated Certified Business requirements, the bid shall be presumed the lowest and best responsible bid for contract award.

b. Any bidder that does not meet the stated Certified Business requirements shall be considered a non-responsible bidder unless a waiver of one or more of the requirements of this chapter is granted, in the City's sole discretion, pursuant to the criteria and processes in Tacoma Municipal Code 1.07.060.C.

2. When contract award is based on qualifications or other performance criteria in addition to price, solicitations shall utilize a scoring system that promotes participation by certified contractors. The Program Regulations may establish further requirements and procedures for final selection and contract award, including:

a. Evaluation of solicitations for Architectural and Engineering (A&E) services;

b. Evaluation and selection of submittals in response to requests for proposals; and

c. Selection of contractors from pre-qualified roster(s).

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed Jun. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.080 Contract compliance.**

A. The contractor awarded a contract based on Certified Business participation shall, during the term of the contract, comply with the requirements established in said contract. To ensure compliance with this requirement following contract award, the following provisions apply:

1. Any substitutions for or failure to utilize or termination of Certified Businesses projected to be used must be approved in advance by the Program Manager. Substitution of one Certified Business with another shall be allowed where there has been a refusal to execute necessary agreements by the original Certified Business, a default on agreements previously made or other reasonable excuse; provided that the substitution does not increase the dollar amount of the bid.

2. Where it is shown that no other Certified Business is available as a substitute and that failure to secure participation by the Certified Business identified in the solicitation is not the fault of the respondent, substitution with a non-Certified Business shall be allowed; provided, that, the substitution does not increase the dollar amount of the bid.

3. If the Program Manager determines that the contractor has not reasonably and actively pursued the use of replacement Certified Business, such contractor shall be deemed to be in non-compliance.

B. Record Keeping.

All contracts shall require contractors to maintain relevant records and information necessary to document compliance with this chapter and the contractor's utilization of Certified Businesses, and shall include the right of the City to inspect such records.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28766 Ex. A; passed Jun. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.090 Program monitoring.**

A. An Advisory Committee shall monitor compliance with all provisions of this chapter and the related Regulations. The Program Manager shall establish procedures to collect data and monitor the effect of the provisions of this chapter to assure, insofar as is practical, that the remedies set forth herein do not disproportionately favor one or more racial, gender, ethnic, or other protected groups, and that the remedies do not remain in effect beyond the point that they are required to eliminate the

effects of under utilization in City contracting, unless such provisions are supported by a Disparity Study. The Program Manager shall have the authority to obtain from City departments/divisions, respondents, and contractors such relevant records, documents, and other information as is reasonably necessary to determine compliance.

B. The Program Manager shall submit an annual report to the Community and Economic Development Director, Director of Utilities, and the City Manager detailing performance of the program. The report shall document Certified Business utilization levels, waivers, proposed modifications to the program, and such other matters as may be specified in the Program Regulations.

(Ord. 28766 Ex. A; passed Jun. 8, 2021; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.100 Enforcement.**

The Director, or designee, may investigate the employment practices of contractors to determine whether or not the requirements of this chapter have been violated. Such investigation shall be conducted in accordance with the procedures established in the Program Regulations.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.110 Penalties.**

A. Upon receipt of a determination of contractor violation by the Program Manager, the City Manager or Director of Utilities, as appropriate, may take the following actions, singly or together, as appropriate:

1. Forfeit the contractor's bid bond and/or performance bond;
2. Publish notice of the contractor's noncompliance;
3. Cancel, terminate, or suspend the contractor's contract, or portion thereof;
4. Withhold funds due contractor until compliance is achieved;
5. Recommend disqualification of eligibility for future contract awards by the City (debarment) per Section 1.06.279 TMC; and/or
6. Any other appropriate action, including a monetary penalty as such penalties may be specified in Program Regulations.

B. Prior to imposing of any of the foregoing penalties, the City shall provide written notice to the contractor specifying the violation and the City's intent to exercise such remedy or remedies. The notice shall provide that each specified remedy becomes effective within ten business days of receipt unless the contractor appeals said action to the Hearing Examiner pursuant to Chapter 1.23 TMC.

C. When non-compliance with this chapter or the Program Regulations has occurred, the Program Manager and the department/division responsible for enforcement of the contract may allow continuation of the contract upon the contractor's development of a plan for compliance acceptable to the Director.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.120 Unlawful acts.**

It shall be unlawful for any Person to willfully prevent or attempt to prevent, by intimidation, threats, coercion, or otherwise, any Person from complying with the provisions of this chapter.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)

### **1.07.130 Severability.**

If any section of this chapter or its application to any Person or circumstance is held invalid by a court of competent jurisdiction, then the remaining sections of this chapter, or the application of the provisions to other Persons or circumstances, shall not be affected.

(Ord. 27867 Ex. A; passed Dec. 15, 2009)



**1.07.140 Review of program.**

This chapter shall be in effect until such point in time that the City Council shall determine, after third party analyses, whether substantial effects or lack of opportunity of Certified Businesses remain true in the relevant market and whether, and for how long, some or all of the requirements of this chapter should remain in effect.

The Department Director or their designee shall review this chapter with City Council standing committee on a biennial basis in order to determine whether adjustments or revisions are required and present those proposals to the City Council for approval.

(Ord. 28931 Ex. A; passed Jan. 9, 2024; Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28274 Ex. A; passed Dec. 16, 2014; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

## INTENT & AFFIDAVIT INFORMATION FOR ON CALL CONTRACTS

- A. One Intent to Pay Prevailing Wages and a corresponding approved Affidavit of Wages Paid (Affidavits) are to be filed for each 12 month (one year) period of the contract performance for the Contractor and all subcontractors of any tier. Intents for the Contractor and all subcontractors shall be filed prior to any payment for work performed following contract execution. Following the first 12 month period, Affidavits must be received prior to final payment for work performed during the first 12 month period. New Intents shall be filed prior to any payment for work performed during the second 12 month period for the Contractor and all subcontractors. Affidavits from the Contractor and all subcontractors must be received from Washington State's Department of labor and Industries (L&I) per Article 6 of the General Conditions.
- B. Immediately following the end of all work completed under this Contract, the Contractor, and each Subcontractor of any tier, shall file an approved Affidavit of Wages Paid with the L&I.
- C. The Contractor shall post in a location readily visible to works at the Project site (1) a copy of the Statement of Intent to Pay Prevailing Wages approved by the Industrial Statistician of the Department of Labor and Industries and (2) the address and telephone number of the Industrial Statistician of the Department of labor and Industries to whom a complaint or inquiry concerning prevailing wages may be directed.
- D. If a State of Washington prevailing wage rate conflicts with another applicable wage rate (such as Davis-Bacon Ace wage rate) for the same labor classification, the higher of the two shall govern.
- E. Pursuant to RCW 39.12.060, if any dispute arises concerning the appropriate prevailing wage rate for work of a similar nature, and the dispute cannot be adjusted by the parties in interest, including labor and management representatives, the matter shall be referred for arbitration to the Director of the Department of Labor and Industries, and his or her decision shall be final and conclusive and binding on all parties involved in the dispute.
- F. The Contractor shall defend (at the Contractor's sole costs, with legal counsel approved by the City of Tacoma), indemnify and hold the City harmless from all liabilities, obligations, claims, demands, damages, disbursements, lawsuits, losses, fines, penalties, costs and expenses, whether direct, indirect, including but not limited to attorneys' fees and consultants' fees and other costs and expenses, from any violation or alleged violation by the Contractor or any Subcontractor of any tier of RCW 39.12 ("Prevailing Wages on Public Works") or Chapter 51 RCW ("Industrial Insurance"), including but not limited to RCW 51.12.050.