



City of Tacoma
Department of Public Works
Engineering Division

PROJECT MANUAL

**Convention Center
Guard House**

**SPECIFICATION NUMBER
PW19-0390F**

**PROJECT NUMBER
PAF-00035-01**

City of Tacoma
Department of Public Works
Engineering Division

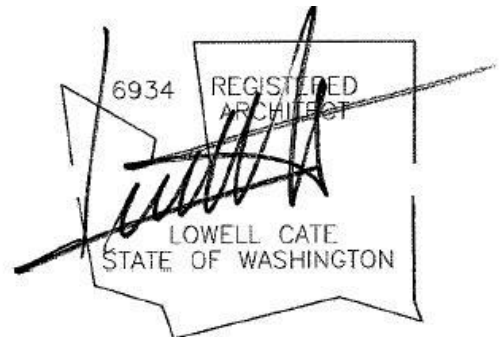
PROJECT MANUAL

CONVENTION CENTER GUARD HOUSE

SPECIFICATION NUMBER PW19-0390F

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Public Works Department
Engineering Division
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Tacoma, WA 98402

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CONVENTION CENTER GUARD HOUSE

SPECIFICATION NO. PW19-0390F

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**City of Tacoma
Public Works Department, Engineering Division**

**REQUEST FOR BIDS PW19-0390F
Convention Center Guard House**

Submittal Deadline: 11:00 a.m., Pacific Time, Tuesday, August 4, 2020

Submittal Delivery: Sealed submittals will be received as follows:

By Email:

bids@cityoftacoma.org

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

By Carrier:

City of Tacoma Procurement & Payables Division
Tacoma Public Utilities
3628 S 35th Street
Tacoma, WA 98409

In Person:

City of Tacoma Procurement & Payables Division
Tacoma Public Utilities Administration Building North
Guard House (east side of main building)
3628 S 35th Street
Tacoma, WA 98409

By Mail:

City of Tacoma Procurement & Payables Division
Tacoma Public Utilities
PO Box 11007
Tacoma, WA 98411-0007

Until further notice, public Bid Opening meetings have been cancelled.

Submittals in response to a RFB will be recorded as received. As soon as possible on the day of submittal deadline, preliminary results will be posted to www.TacomaPurchasing.org.

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

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

Pre-Proposal Meeting: A pre-proposal Site Viewing will be held by appointment on site Tuesday, July 21st and Thursday, July 23rd at the Convention Center, at the loading dock entrance on Market Street. See Division 1 – Special Provisions Section 01 1010 1.3 for appointment instructions.

Project Scope: The project generally consists of the procurement and installation of a prefabricated guard house on a new concrete slab foundation near the existing loading dock ramp; installing dry utilities and moving system controls from the existing security room to the new guard house.

Estimate: \$398,000

Paid Leave and Minimum Wage: Effective February 1, 2016, the City of Tacoma requires all employers to provide paid leave and minimum wages, as set forth in Title 18 of the Tacoma Municipal Code. For more information visit www.cityoftacoma.org/employmentstandards.

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 Gail Himes at ghimes@cityoftacoma.org, or by calling her collect at 253-591-5785.

Additional Information: Requests for information regarding the specifications may be obtained by contacting Doreen Klaaskate, Senior Buyer by email to dklaaskate@cityoftacoma.org

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



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

**CITY OF TACOMA
FINANCE/PURCHASING DIVISION
SPECIAL NOTICE TO BIDDERS**

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

I. STATE OF WASHINGTON

A. RESPONSIBILITY CRITERIA – STATE OF WASHINGTON

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

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

B. RECIPROCAL PREFERENCE FOR RESIDENT CONTRACTORS:

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

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

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

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

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

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

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

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

C. SUBCONTRACTOR RESPONSIBILITY

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

SPECIAL REMINDER TO ALL BIDDERS

HEALTH & SAFETY: Be sure to comply with all City of Tacoma health and safety requirements.

1. This project has been deemed to be an essential project by the City of Tacoma and it is anticipated that the contract will be operational during the COVID-19 outbreak. Therefore the contractor shall complete a health and safety plan describing how the contractor will complete the work while combating the COVID-19 spread (social distancing practices) and what Personal Protective Equipment (PPE) will be in place.

PLEASE NOTE: Be sure you have complied with all specifications and requirements and have signed all required documents.

YOUR ATTENTION IS PARTICULARLY CALLED to the following forms, which must be executed in full before the bid is submitted:

1. **BID PROPOSAL:** The unit prices bid must be shown in the space provided. Check your computations for omissions and errors.
2. **SIGNATURE PAGE:** 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.
3. **BID BOND:** The Bid Bond must be executed by the person legally authorized to sign the bid, and must be properly signed by the representatives of the surety company unless the bid is accompanied by a certified check. If Bid Bond is furnished, the form furnished by the City must be followed; no variations from the language thereof will be accepted. The amount of the Bid Bond must be not less than 5% of the total amount bid.
4. **CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES:** Bidder shall complete this form in its entirety to ensure compliance with state legislation (SHB 2017).
5. **STATE RESPONSIBILITY AND RECIPROCAL BID PREFERENCE INFORMATION:** Bidder shall complete this form in its entirety to ensure compliance with state legislation (SHB 2010).
6. **LIST OF SUBCONTRACTOR CATEGORIES OF WORK:** Bidder shall list all subcontractor(s) proposed to perform work.

FAILURE TO LIST SUBCONTRACTORS WILL RESULT IN THE BID BEING NON-RESPONSIVE.

7. **STATEMENT OF QUALIFICATIONS:** The Contractor or subcontractor shall fill out this form in its entirety proving they meet the requirements as outlined in these specifications. The City of Tacoma shall solely determine if a Bidder meets the minimum experience requirements. This is a condition of award of the Contract.

8. EQUITY IN CONTRACTING (EIC) UTILIZATION FORM

Bidders shall complete the Equity in Contracting Utilization Form in accordance with the City of Tacoma Equity in Contracting Regulations Manual and Chapter 1.07 of the City of Tacoma Municipal Code (TMC). This form shall be fully and accurately completed and returned with submission of the Bid and will be used to determine if the Bidder is in compliance with the EIC regulations and the TMC.

Bidders shall meet the percent sub-contracting requirements listed on the EIC Requirement Form to be considered responsive. Bidders unable to meet the percent sub-contracting requirements shall submit an Application of Waiver of EIC Requirements, the Equity in Contracting Utilization Form, and any required attachments with the Bid in accordance with the Equity in Contracting Regulations Manual located in PART 2 of these Specifications.

FAILURE TO COMPLETE AND SUBMIT EIC FORMS WITH THE BID SUBMITTAL PACKAGE MAY RESULT IN THE BID BEING DECLARED NON-RESPONSIVE AND REJECTED.

POST AWARD FORMS EXECUTED UPON AWARD:

- A. CONTRACT: Must be executed by the successful bidder.
- B. PAYMENT BOND TO THE CITY OF TACOMA: Must be executed by the successful bidder and his/her surety company.
- C. PERFORMANCE BOND TO THE CITY OF TACOMA: Must be executed by the successful bidder and his/her surety company.
- D. CERTIFICATE OF INSURANCE: Shall be submitted with all required endorsements.
- E. LEAP UTILIZATION PLAN: Shall be submitted at the Pre-Construction Meeting.
- F. GENERAL RELEASE.

CODE OF ETHICS: The successful bidder agrees that its violation of the City's Code of Ethics contained in TMC Chapter 1.46 shall constitute a breach of the contract subjecting the contract to termination.

LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM (LEAP):

The Local Employment and Apprenticeship Training Program (LEAP) has been adopted to counteract economic and social ills, which accompany high rates of unemployment within the City of Tacoma. The Tacoma City Council established the mandatory LEAP program for public works contracts pursuant to Ordinance No. 28520. The primary goal is to provide an opportunity for City of Tacoma residents and Tacoma Public Utilities ratepayers to enter apprenticeship programs, acquire skills, and perform work that will provide living wages.

LEAP Goals:

1. Local Employment Utilization Goal – Prime contractor is required to ensure that 15 percent of the labor hours worked on the project are performed by residents of the City of Tacoma or economically distressed areas of the Tacoma Public Utilities service area.
2. Apprentice Utilization Goal - Prime contractor is required to ensure that 15 percent of the labor hours worked on the project are performed by apprentices who reside in the Tacoma Public Utilities service area.

NOTE: The two goals can be satisfied concurrently if the prime contractor utilizes individuals who simultaneously meet the requirements of both goals, such as an apprentice who resides in an economically distressed area of the Tacoma Public Utilities service area.

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

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 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.

Requests for modifications to the supplemental criteria may be submitted via postal mail or delivered personally, or sent by e-mail, within the above timeline as follows:

By Carrier: City of Tacoma Procurement & Payables Division Tacoma Public Utilities 3628 S 35 th Street Tacoma, WA 98409	In Person: City of Tacoma Procurement & Payables Division Tacoma Public Utilities Administration Building North – Guard House (east side of main building) 3628 S 35 th Street Tacoma, WA 98409
By Mail: City of Tacoma Procurement & Payables Division Tacoma Public Utilities PO Box 11007 Tacoma, WA 98411-0007	E-mail: bids@cityoftacoma.org

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.

PART I

BID PROPOSAL AND CONTRACT FORMS

BID PERIOD FORMS

The following forms shall be used during the bidding process to request clarifications and request substitutions. These forms are not required to be submitted with the Bid.

- Bidder Question Form
- Substitution Request Form

BIDDER QUESTION FORM

Convention Center Guard House
SPECIFICATION NO.: PW19-0390F

Prospective bidders must submit questions or clarifications in writing on this form allowing time for a written reply to reach all prospective bidders before the submission of the bids. Bidder questions shall be submitted on this form via e-mail to:

Doreen Klaaskate, Senior Buyer.
E-mail address: dklaaskate@cityoftacoma.org

All e-mails must be received by **Noon on Friday July, 24, 2020**. Where changes in the project documents are required, an addendum will be issued to everyone on the plan holder's list and posted on www.tacomapurchasing.org.

I have the following question(s): _____

Submitted by:

Name

Representing

Address

Fax Number

Phone Number

SUBSTITUTION REQUEST FORM

Convention Center Guard House
SPECIFICATION NO.: PW19-0390F

Prospective bidders may request substitutions in writing on this form. Substitutions shall be submitted on this form via e-mail to:

Doreen Klaaskate, Senior Buyer.
E-mail address: dklaaskate@cityoftacoma.org

All e-mails must be received by **Noon on Wednesday, July 22, 2020**. Where changes in the project documents are required, an addendum will be issued to everyone on the plan holder's list and posted on www.tacomapurchasing.org.

Submitted By

Signature _____

Company _____

Mailing Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____ E-mail _____

☐ Please check if there are attachments

1. We hereby submit for your consideration the following product instead of the specified item for the above project:

<u>Section</u>	<u>Page</u>	<u>Line/Paragraph</u>	<u>Specified Item</u>
_____	_____	_____	_____

2. Proposed Substitution. _____

3. Reason for Substitution. _____

4. Attach complete technical data, catalog cuts, drawings, samples, etc. Exact models and description of products shall be noted with any deviation noted.

5. Include complete information on changes to Drawings, and/or Specifications which proposed substitution will require for its proper installation. _____

6. Does the substitute affect dimensions shown on Drawings? _____

6a. If so, how? _____

7. Describe the effect substitution has on other trades. _____

8. Describe differences between proposed substitution and specified item. _____

9. Manufacturer's warranties of the proposed and specified items are: ☐ Same ☐ Different (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item. The undersigned agrees to pay for changes to the building and systems design, including engineering and detailing costs caused by the requested substitution.

SUBSTITUTION REQUEST FORM

Convention Center Guard House
SPECIFICATION NO.: PW19-0390F

For Reviewer

- ☐ Approved for Bidding subject to review and approval of Submittals (and as noted below) ☐ Rejected - Inadequate Information
☐ Not Accepted ☐ Received Too Late

By _____ Date _____

Remarks

PROPOSAL FORMS

The following forms must be completed in their entirety and submitted with the bid. Bidders must use the forms provided. Do not modify or substitute forms. Failure to complete and submit all the forms in this section may result in the bid being declared unresponsive and rejected.

1. **BID PROPOSAL**
2. **SIGNATURE PAGE**
3. **BID BOND**
4. **CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES**
5. **STATE RESPONSIBILITY FORM**
6. **LIST OF SUBCONTRACTORS CATEGORIES OF WORK**
7. **GENERAL CONTRACTOR QUALIFICATIONS SUBMITTAL**
8. **EQUITY IN CONTRACTING FORMS**

CONVENTION CENTER GUARD HOUSE
SPECIFICATION NO.: PW19-0390F

B I D P R O P O S A L

City of Tacoma
Department of Public Works
Engineering Division

Name of Firm: _____
(Write in company name)

In compliance with the contract documents, the following bid proposal is submitted:

BASE BID:

Lump sum base bid is inclusive of the Scope of Work described in the Contract Documents

BASE BID: \$ _____

WA STATE SALES TAX @ 10.2 %: \$ _____

GRAND TOTAL: \$ _____

TIME FOR COMPLETION:

The undersigned hereby agrees to substantially complete all the work under the Base Bid (and accepted alternates and/or unit prices) within **160** calendar days after the Notice to Proceed.

INTENT AND AFFIDAVIT OF WAGES PAID:

In compliance with 296-127 WAC the Contractor shall pay all fees associated with the Intent and Affidavit of Wages Paid to the Department of Labor and Industries. These costs shall be included in the base bid.

CITY OF TACOMA PROGRAMS:

The City of Tacoma's Equity in Construction (EIC) Program will be utilized on this project. See the EIC Requirement Form in the bid documents for goals. There is no Local Employment & Apprenticeship Program (LEAP) goal for this project.

CONVENTION CENTER GUARD HOUSE
SPECIFICATION NO.: PW19-0390F

B I D P R O P O S A L

SUSTAINABILITY:

1) Have you incorporated sustainability into your everyday business practices? **Yes / No**

Please Describe:

2) Have you taken measures to minimize impacts to the environment in the delivery of proposed goods and services? **Yes / No**

Please Describe:

3) Will you be incorporating and implementing sustainable practices during the construction of this project? **Yes / No**

Please Describe:

SIGNATURE PAGE

CITY OF TACOMA PUBLIC WORKS DEPARTMENT / ENGINEERING DIVISION

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. PW19-0390F CONVENTION CENTER GUARD HOUSE

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

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.)

Addendum acknowledgement #1_____ #2_____ #3_____ #4_____ #5_____

THIS PAGE MUST BE SIGNED AND RETURNED WITH SUBMITTAL.

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 _____

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:

_____, 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 15, 2020), 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

List of Subcontractor Categories of Work

To be Submitted with the Bid Proposal

Project Name _____

Failure to list subcontractors below, who are proposed to perform work, will result in your bid being non-responsive. 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 _____

Subcontractor Name _____
Work to be Performed _____

Convention Center Guard House
SPECIFICATION NO.: PW19-0390F
GENERAL CONTRACTOR QUALIFICATIONS SUBMITTAL

This form shall be completed in its entirety, **submitted with the bid**, and shall be used to demonstrate the General Contractor's minimum experience. Failure to submit this form may be grounds for bid rejection.

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

Qualification of General Contractor: General Contractor shall have a minimum of five (5) projects within the past five (5) years showing a record of competence and experience in the construction of similar facilities of this size and complexity; demonstrating an ability to meet the contract schedule and requirements. General Contractor shall meet all Local and State Certifications and License requirements prior to bidding. Copies of the required Certificates and Licenses shall be made available upon request.

Name: _____

Address: _____

Contact Person: _____ Phone: _____

Project Experience:

Project No. 1 Name:
Project Owner:
Owner Contact / Phone No.:
Date Work Completed:
Description of Work:

Project No. 2 Name:
Project Owner:
Owner Contact / Phone No.:
Date Work Completed:
Description of Work:

Convention Center Guard House
SPECIFICATION NO.: PW19-0390F
GENERAL CONTRACTOR QUALIFICATIONS SUBMITTAL

Project No. 3 Name:
Project Owner:
Owner Contact / Phone No.:
Date Work Completed:
Description of Work:

Project No. 4 Name:
Owner Contact / Phone No.:
Contact Person:
Date Work Completed:
Description of Work:

Project No. 5 Name:
Owner Contact / Phone No.:
Contact Person:
Date Work Completed:
Description of Work:

EIC REQUIREMENT FORM

EQUITY IN CONTRACTING REQUIREMENTS & PROCEDURES:

All bidders must complete and submit with their bid the following solicitation form contained in the bid submittal package:

City of Tacoma – EIC Utilization Form

IMPORTANT NOTE:

It is the bidder's responsibility to insure that the EIC-eligible subcontractor(s) listed on the EIC Utilization Form are currently certified by the City of Tacoma or the State of Washington's Office of Minority and Women Business Enterprises at the time of bid opening. This may be verified by contacting the EIC Office at 253-591-5075 between 8 AM and 5 PM, Monday through Friday. Please refer to the City of Tacoma EIC Provisions included elsewhere in these Special Provisions.

Equity in Contracting Requirements

Minority Business
Enterprise Requirement

7%

Women Business
Enterprise Requirement

8%

Small Business Enterprise
Requirement

10%

A list of EIC-eligible companies is available on the following web site addresses:

www.cityoftacoma.org/sbe
www.omwbe.diversitycompliance.com*

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

CCD/SBE: PAF - 00035
Date of Record: 6.22.2020

*For the OMWBE list, be sure to only look for businesses in Pierce, King, Lewis, Mason, and Grays Harbor counties.



City of Tacoma
Community & Economic Development
Office of Equity in Contracting
747 Market Street, Rm 900
Tacoma WA 98402
253-591-5075

EQUITY IN CONTRACTING UTILIZATION FORM

This form is to document **only** the EIC subcontractors or material suppliers that will be awarded a contract. This information will be used in calculating the **EVALUATED BID**. Additional forms may be used if needed.

- Prime contractors are encouraged to solicit bids from EIC approved firms.
- Be sure to include this form with your bid submittal in order to receive EIC credit.
- It is the prime contractor's responsibility to check the certification status of EIC subcontractors prior to the submittal deadline.

Bidder's Name: _____

Address: _____ City/State/Zip: _____

Spec. No. _____ Base Bid * \$ _____ **Complete company names and phone numbers are required to verify your EIC usage.**

a. Company Name and Telephone Number	b. MBE, WBE, or SBE (Write all that apply)	c. NAICS code(s)	d. Subcontractor Bid Amount (100%)	e. Material Supplier Bid Amount (20%)	f. Estimated MBE Usage Dollar Amount	g. Estimated WBE Usage Dollar Amount	h. Estimated SBE Usage Dollar Amount
i. MBE Utilization %	j. WBE Utilization %	k. SBE Utilization %					

By signing and submitting this form the bidder certifies that the EIC firms listed will be used on this project including all applicable change orders.

Type or Print Name of Responsible Officer / Title

Signature of Responsible Officer

Date

INSTRUCTIONS FOR COMPLETING EIC UTILIZATION FORM

The purpose of these instructions is to assist bidders in properly completing the EIC Utilization Form.

This form when submitted with your bid provides information to the City of Tacoma to accurately review and evaluate your proposed EIC usage.

1. * Base Bid is the prime contractor's bid, plus any alternates, additives and deductive selected by the City. Also, please refer to Items #10-12 below.
2. Column "a" – List all EIC companies that you will be awarding a contract to if you are the successful bidder.
3. Column "b" – Identify if this firm is being utilized as an MBE, WBE, or SBE. (Firms may count towards multiple requirements)
4. Column "c" – List the appropriate NAICS code for the scope of work, services, or materials/supplies for each subcontractor.
5. Column "d" – The bid amount must be indicated for **all** listed **EIC** that you plan on doing business with. This quote is the price that you and the subcontractor have negotiated prior to bid opening.
6. Column "e" – The bid amount must be indicated for **all** listed **EIC** that you plan on doing business with. This quote is the price that you and the material supplier have negotiated prior to bid opening.
8. Column "f" – Estimated MBE Usage Dollar Amount: For all MBE firms used, multiply the amount in Column "d" by 1.0 plus the amount in Column "e" by 0.20. Insert the total amount in this column.
9. Column "g" – Estimated WBE Usage Dollar Amount: For all WBE firms used, multiply the amount in Column "d" by 1.0 plus the amount in Column "e" by 0.20. Insert the total amount in this column.
10. Column "h" – Estimated SBE Usage Dollar Amount: For all MBE, WBE, or SBE firms used, Multiply the amount in Column "d" by 1.0 plus the amount in Column "e" by 0.20. Insert the total amount in this column.
11. Block "i" – The percent of actual MBE utilization calculated on the Base Bid only. (Divide the sum of Estimated MBE Usage Dollar Amount (Column "f") by your Base Bid (*) then multiply by 100 to get a percentage: \$ amounts from column "f" divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)
12. Block "j" – The percent of actual WBE utilization calculated on the Base Bid only. (Divide the sum of Estimated WBE Usage Dollar Amount (Column "g") by your Base Bid (*) then multiply by 100 to get a percentage: \$ amounts from column "g" divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)

13. Block "k" – The percent of actual SBE utilization calculated on the Base Bid only. (Divide the sum of Estimated SBE Usage Dollar Amount (Column "h") by your Base Bid (*) then multiply by 100 to get a percentage: \$ amounts from column "h" divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)

It is the prime contractor's responsibility to check the status of EIC subcontractors prior to bid opening. Call the EIC Office at 253-591-5075 for additional information.

Application for Waiver of EIC Requirements

Section 1: Basic Information			
Contractor's Name:		EIC Requirements	
Street Address:		MBE %	WBE %
City, State, ZIP Code:			
Contact E-mail Address:			
Contact Telephone No.:			
Section 2: Type of EIC Waiver Requested			
MBE Waiver: <input type="checkbox"/> Total	<input type="checkbox"/> Partial	If partial waiver, please enter the revised MBE percentage:	
WBE Waiver: <input type="checkbox"/> Total	<input type="checkbox"/> Partial	If partial waiver, please enter the revised WBE percentage:	
SBE Waiver: <input type="checkbox"/> Total	<input type="checkbox"/> Partial	If partial waiver, please enter the revised SBE percentage:	
Please explain the reason for the waiver request:			
Section 3: Supporting Documentation			
Provide the following documentation as evidence of your efforts to meet the EIC requirements set forth in the contract and in support of your waiver application:			
<input type="checkbox"/> Attachment A. List of the general circulation, trade and MWBE/SBE-oriented publications and dates of publications soliciting for certified MWBE/SBE participation as a subcontractor/supplier and copies of such solicitation.			
<input type="checkbox"/> Attachment B. List of the certified MWBEs/SBEs appearing in the State of Washington Office of Minority and Women Business Enterprise (OMWBE) directory that were solicited for this contract. Provide proof of dates or copies of the solicitations and copies of the responses made by the certified MWBEs/SBEs. Describe the specific reasons that responding certified MWBEs/SBEs were not selected.			
<input type="checkbox"/> Attachment C. Descriptions of the contract documents/plans/specifications made available to certified MWBEs/SBEs by the contractor when soliciting their participation and steps taken to structure the scope of work for the purpose of subcontracting with or obtaining supplies from certified MWBEs.			
<input type="checkbox"/> Attachment D. Description of the negotiations between the contractor and certified MWBEs/SBEs for the purposes of complying with the EIC requirements of this contract.			
<input type="checkbox"/> Attachment E. Identify dates of any pre-bid, pre-award or other meetings attended by the contractor, if any, scheduled by the City of Tacoma with certified MWBEs/SBEs whom the City of Tacoma determined were capable of fulfilling the EIC requirements set in the contract.			
<input type="checkbox"/> Attachment F. Other information deemed relevant to the request.			
Section 4: Signature and Contract Information			
By signing and submitting this form, the contractor certifies that a good faith effort has been made to promote MWBE/SBE participation pursuant to the EIC requirements set forth under the contract. Failure to submit complete and accurate information may result in a finding of noncompliance, non-responsibility, non-responsiveness, and a suspension or termination of the contract.			
Prepared by (signature): _____		Date: _____	
Name and title of preparer (print): _____			

Instructions for Completing and Submitting an Application for a Waiver of EIC Requirements

Section 1.07 of the Tacoma Municipal Code requires the City to set requirements for participation by Minority and Women-owned Business Enterprises (MWBE) and/or Small Business Enterprise (SBE) on many types of contracts. Prior to the contract award, separate goals are established for MBE, WBE, and SBE utilization, expressed as a percentage of payments made under the contract. The regulations allow the City to impose penalties if contractors fail to meet the requirements established for the contract and also allow the City to grant waivers of requirements, either prior to a contract award or after the award has been made, provided the contractor demonstrates an inability to solicit participation despite good faith efforts to that end. In order for a waiver to be granted, the contractor must submit a completed “Application for Waiver of EIC Requirements” form, along with the required supporting documentation.

Section 1: Basic Information

Enter the contractor’s name, address, federal identification number, and the contract number in the spaces provided. Enter the MBE, WBE, and SBE utilization goals set forth in the solicitation or assigned contract.

Section 2: Type of Waiver Request

Check the type(s) of waiver requested. You may request a total or partial waiver of the EIC requirements. If you request a partial waiver any requirement, enter the revised goal for participation in the box provided. Use the space provided to provide a rationale for your waiver request. Consult the EIC Regulations Manual for the acceptable reasons waivers may be provided. You may attach additional sheets, if necessary.

Section 3: Supporting Documentation

Extensive documentation is required to demonstrate good faith efforts to comply with the EIC requirements. See the form for details on the required documentation.

Section 4: Signature and Contact Information

The waiver application must be signed by someone authorized to discuss the waiver with the Equity in Contracting office and Procurement. By signing the waiver application, the contractor certifies that a good faith effort has been made to promote MWBE/SBE participation pursuant to the EIC requirements set forth under the contract. Failure to submit complete and accurate information may result in a finding of non-compliance, non-responsibility, non-responsiveness, and a suspension or termination of the contract.

Note: Unless total waivers for all three of the MBE, WBE, and SBE participation have been granted, the contractor is required to submit all reports and documents – including compliance reports – pursuant to the provisions set forth in the contract, to evidence compliance with the requirements.

CONTRACT FORMS (POST AWARD)

1. **CONTRACT**
2. **PAYMENT BOND TO THE CITY OF TACOMA**
3. **PERFORMANCE BOND TO THE CITY OF TACOMA**
4. **GENERAL RELEASE TO THE CITY OF TACOMA**
5. **CONTRACTOR'S WORK HAZARD ANALYSIS REPORT**

CONTRACT

Resolution No.
Contract No.

This Contract is made and entered into effective this _____ day of ,20____, ("Effective Date") by and between the City of Tacoma, a Municipal Corporation of the State of Washington ("City"), and legal name of Supplier including type of business entity ("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. Enter Spec Number and Enter 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. Enter Spec Number and Enter Spec Title.
3. Describe with specific detail and list separately any other documents that will make up the contract (fee schedule, work schedule, authorized personnel, etc.) or any other additional items mutually intended to be binding upon the parties.

Delete this highlighted sentence, paragraph II and sub-bullets #1 and #2 if there are no additional attachments to the contract (attachments would be things other than a specific, contract, or bonds).

- II. 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
 2. List remaining Contract Documents in applicable controlling order.
- III. The Contract terminates on xxxxx. {May remove if not applicable}
- IV. The total price to be paid by City for Contracts full and complete performance hereunder may not exceed:
\$ _____, plus any applicable taxes.
- V. 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.
- VI. 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.
- VII. 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.
- VIII. Contractor acknowledges, and by signing this Contract agrees, that the Indemnification provisions set forth in the controlling Contract Documents, including the Industrial Insurance immunity waiver (if applicable), are totally and fully part of this Contract and, within the context of the competitive bidding laws, have been mutually negotiated by the Parties hereto.

- 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.
- X. 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, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable.

CITY OF TACOMA:

CONTRACTOR:

By:

By:

(City of Tacoma use only - blank lines are intentional)

Director of Finance: _____

City Attorney (approved as to form): _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____



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: _____



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 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 _____
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 _____

CITY OF TACOMA
CONTRACTOR'S WORK HAZARD ANALYSIS REPORT
for

(Project Name)

The contractor and his/her subcontractors shall thoroughly review the scope of work described in the proposed project drawings and specifications. Following the review, the contractor will be responsible to indicate below any known or potential safety issues or phases of construction that may require specific safety procedures as identified by WISHA or OSHA regulations, and/or prudent construction practices; i.e., shoring, fall protection, scaffolding, hazardous materials, etc.

Failure to list and comply with safety requirements will be cause for disqualification from future City of Tacoma contracts. A copy of this report shall be posted at the job site at all times.

If, during the course of construction, other safety requirements are identified, they will be added to this report as an addendum. The contractor will be required to adhere to the recommended actions and/or controls identified in the addendum.

SAFETY ISSUES/CONCERNS*	HAZARDS	RECOMMENDED ACTION AND/OR CONTROLS
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*USE A SEPARATE SHEET IF MORE ROOM IS NEEDED

Contractor Name and Title

Date

Job Site Superintendent

Date

Company Officer Signature

WASHINGTON STATE PREVAILING **WAGE RATES**

PREVAILING WAGE RATES

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

The project site is located in Pierce County.

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

- a. If the project is not awarded within six months of the submittal deadline, the award date is the effective date.
- b. If the project is not awarded pursuant to a competitive solicitation, the date the contract is executed is the effective date.
- c. 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 DOCUMENTS

The Contractor shall submit to the City the following Department of Labor and Industries (L&I) forms for itself and for each firm covered under [39.12 RCW](#) that provided work and materials for the Contract:

1. A copy of an approved Statement of Intent to Pay Prevailing Wages, L&I form number [F700-029-000](#). The City will make no payment under this Contract for the Work performed until this statement has been approved by L&I and a copy of the approved form has been submitted to the City.
2. A copy of an approved Affidavit of Prevailing Wages Paid, L&I form number [F700-007-000](#). The Contracting Agency will not grant completion or release retainage held under chapter 60.28 RCW until all approved Affidavit of Wages paid for Contractor and all Subcontractors have been received by the City.

GENERAL CONDITIONS AND OTHER CONTRACT TERMS & CONDITIONS

1. CITY OF TACOMA, STANDARD TERMS AND CONDITIONS
2. MODIFICATIONS TO THE GENERAL CONDITIONS,
AS MODIFIED BY THE CITY OF TACOMA
3. GENERAL CONDITIONS FOR WASHINGTON STATE
FACILITY CONSTRUCTION

**CITY OF TACOMA
STANDARD TERMS AND CONDITIONS
GOVERNS BOTH GOODS AND SERVICES AS APPLICABLE**

In the event of an award by the City, these Terms and Conditions stated herein, Additional Contract Documents if issued, Solicitation if issued, Purchase Orders if issued by City, and Supplier's Submittal, if provided, shall constitute the Contract between City and Supplier for the acquisition of goods, including materials, supplies, and equipment or for the provision of services and deliverables.

Said documents represent the entire Contract between the parties and supersede any prior oral statements, discussions, or understandings between the parties, and/or subsequent Supplier invoices. No modification of the Contract shall be effective unless mutually agreed in writing.

The specific terms and conditions of any Solicitation (Specification, Request for Bids, Request for Proposals, Requests for Qualifications, Requests for Quotations, Request for Information, bid documents, request to enter into negotiations, or other form of solicitation issued by City, including any general, special, or technical provisions associated with such Solicitations) are incorporated herein by reference and supersede these Terms and Conditions where there is conflict or inconsistency.

In the event Additional Contract Documents are negotiated and agreed to in writing between Supplier and City, the specific terms of such Additional Contract Documents are incorporated herein by reference and supersede all other terms and conditions where there is conflict or inconsistency.

These Terms and Conditions, Additional Contract Documents if issued, Solicitation if issued, City purchase order if issued, are controlling over Supplier's Submittal if a Submittal is provided. Submittals if provided are incorporated herein by reference.

1.01 SUPPLIER / CONTRACTOR

As used herein, "Supplier" or "Contractor" shall be the Supplier(s) entering a Contract with City, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise.

1.02 SUBMITTAL

Submittal means Bids, Proposals, Quotes, Qualifications or other information, content, records or documents submitted in response to a City Solicitation.

1.03 FORMS OF SUBMITTAL

Unless stated otherwise, all submittals must be in SAP Ariba and submitted exactly as specified or directed, and all required forms must be used.

1.04 COSTS TO PREPARE SUBMITTAL

The City is not liable for any costs incurred by Supplier for the preparation of materials or a Submittal provided in response to a solicitation, conducting presentations to the City, or any other activities related to responding to the City's Solicitation.

1.05 LICENSES/PERMITS

- A. Suppliers, if applicable, must have a Washington state business license at the time of Submittal and throughout the term of the Contract. Failure to include a Washington state business license may be grounds for rejection of the Submittal or cancellation of contract award. Information regarding Washington state business licenses may be obtained at <http://bls.dor.wa.gov>.
- B. Upon award, it is the responsibility of the Supplier to register with the City of Tacoma's Tax and License Division, 733 South Market Street, Room 21, Tacoma, WA 98402-3768, 253-591-5252, https://www.cityoftacoma.org/government/city_departments/finance/tax_and_license/. Supplier shall obtain a business license as is required by Tacoma Municipal Code Subtitle 6C.20.
- C. During the term of the Contract, Supplier, at its expense, shall obtain and keep in force any and all necessary licenses and permits.

1.06 PUBLIC DISCLOSURE: PROPRIETARY OR CONFIDENTIAL INFORMATION

- A. Supplier Submittals, all documents and records comprising the Contract, and all other documents and records provided to the City by Supplier 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 Supplier has complied with the requirements to mark records considered confidential or proprietary as such requirements are stated below, City agrees to provide Supplier 10 days written notice of impending release. Should legal action thereafter be initiated by Supplier to enjoin or otherwise prevent such release, all expense of any such litigation shall be borne by Supplier, 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 Supplier took no action to oppose the release of information.
- B. If Supplier provides City with records or information that Supplier considers confidential or proprietary, Supplier 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 Supplier expressly waives its right to allege any kind of civil action or claim against the City pertaining to the release of said record(s).
- C. Submission of materials in response to City's Solicitation shall constitute assent by Supplier to the foregoing procedure and Supplier shall have no claim against the City on account of actions taken pursuant to such procedure.

1.07 SUSTAINABILITY

- A. The City has interest in measures used by its contractors to ensure sustainable operations with minimal adverse impact on the environment. The City seeks to do business with vendors that value community and environmental stewardship that help us meet our sustainable purchasing goals.
- B. The City encourages the use of environmentally preferable products or services that help to minimize the environmental and human health impacts of City operations. Suppliers are encouraged to incorporate environmentally preferable products or services into Submittals wherever possible. "Environmentally preferable" means 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, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.
- C. Environmental Standards. The City seeks to ensure that all purchases comply with current environmental standards and product specifications. Where appropriate, third party independent certifiers such as Green Seal and USEPA Standards shall be a minimum specification for products to the City, unless specified otherwise herein.
- D. The City encourages the use of sustainability practices and desires any awarded Suppliers to assist in efforts to address such factors when feasible for:
 - 1. Pollutant releases
 - 2. Toxicity of materials used
 - 3. Waste generation
 - 4. Greenhouse gas emissions, including transportation of materials and services
 - 5. Recycle content
 - 6. Energy consumption
 - 7. Depletion of natural resources
 - 8. Potential impact on human health and the environment

1.08 ALTERATIONS NOT ALLOWED

Except as otherwise specifically provided in a Solicitation, Submittals that are incomplete or conditioned in any way, contain erasures, alternatives or items not called for, or not in conformity with law, may be rejected as being non-responsive. Any attempt to condition a Submittal by inserting exceptions to the Solicitation or any conditions, qualifications or additions that vary its terms may result in rejection of the Submittal. The City may reject any submittal containing a material deviation from the Solicitation.

1.09 CORRECTION OF AMBIGUITIES AND OBVIOUS ERRORS

- A. The City reserves the right to correct obvious errors in Supplier's Submittal. In this regard, if the unit price does not compute to the extended total price, the unit price shall govern.
- B. Supplier shall notify the City of Tacoma Procurement and Payables Division in writing of any ambiguity, conflict, discrepancy, omission or other error in a Solicitation no later than five business days prior to the submittal deadline.
 - 1. For solicitations conducted in SAP Ariba, Supplier shall notify the City of Tacoma Procurement and Payables Division on the message board of the event.
 - 2. For all other solicitations, Supplier shall notify the contract person listed in the Solicitation.
- C. The City will make necessary modifications by addendum.
- D. Supplier is responsible for identifying ambiguities, conflicts, discrepancies, omissions or other errors in the Solicitation prior to providing its Submittal or the ambiguity, conflict, discrepancy, omission, or other error is waived. Any Submittal that includes assumed clarifications and/or corrections without the required authentication of the same is subject to rejection.

1.10 WARRANTIES/GUARANTEE

- A. Suppliers warrant that all items, including services, as applicable:
 - 1. Are merchantable.
 - 2. Comply with the City's latest drawings and specifications.
 - 3. Are fit for the City's intended use.
 - 4. Will be performed according to the skill and care required by customarily accepted good practices and procedures followed by service providers rendering the same or similar type of service.
 - 5. Are new and unused unless otherwise stated.
 - 6. Comply with all applicable safety and health standards established for such products by the Occupational Safety and Health Administration (OSHA), Washington Industrial Safety and Health Act (WISHA) and/or Consumer Products Safety Act (CPSA), and all other applicable state and federal laws or agency regulations.
 - 7. Are properly packaged and contain appropriate instructions or warnings, including applicable MSDS sheets.

1.11 PATENTS, TRADEMARKS AND COPYRIGHTS

Suppliers warrant that equipment and/or materials furnished, including software, do not infringe on any patent, trademark or copyright, and agree to indemnify, defend and hold harmless, the City in the event of any infringement or claim thereof.

1.12 DELIVERY OF SUBMITTALS TO THE CITY'S PROCUREMENT AND PAYABLES DIVISION

- A. Submittal 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.

1.13 SUBMITTAL IS NON-COLLUSIVE

Supplier acknowledges that by its delivery of a Submittal to the City in response to a Solicitation, it represents that the prices in such Submittal are neither directly nor indirectly the result of any formal or informal agreement with another Supplier.

1.14 PARTNERSHIPS

The City will allow firms to partner in order to respond to a Solicitation. Multiple suppliers may team under a Prime Supplier's Submittal in order to provide responses to all sections in a single submission; however, each Supplier's participation must be clearly delineated by section. The Prime Supplier will be considered the responding vendor and the responsible party at contract award. All contract negotiations will be conducted only with the Prime Supplier. All contract payments will be made only to the Prime Supplier. Any agreements between the Prime Supplier and other companies will not be a part of the Contract between the City and the Prime Supplier. The City reserves the right to select more than one Prime Supplier.

1.15 WITHDRAWAL OF SUBMITTALS

- A. Prior to Submittal Deadline. Submittals may be withdrawn (including in SAP Ariba) prior to the scheduled submittal deadline.
- B. After Submittal Deadline. No Submittal can be withdrawn after having been opened before the actual award of the contract, unless the award is delayed more than 90 calendar days beyond the date of opening. If a delay of more than 90 calendar days does occur, Supplier must submit written notice to the City purchasing manager that Supplier is withdrawing its submittal.

1.16 ACCEPTANCE OF SUBMITTALS

- A. If the solicitation announcement so states, submittals, unless previously withdrawn, will be read aloud, irrespective of any irregularities or informalities in such submittal, at the time and place specified in the solicitation announcement.
- B. All submittals must remain open for acceptance by the City for a period of at least 90 calendar days from the submittal deadline.

1.17 RIGHT TO REJECT

- A. The City of Tacoma reserves the right to reject any and all submittals, waive minor deviations or informalities, supplement, amend, reduce or otherwise modify the scope of work or cancel the solicitation, and if necessary, call for new submittals.

1.18 RESERVED RIGHTS

- A. By providing a submittal in response to a City solicitation, Supplier acknowledges and consents to the below City rights and conditions. With regard to this procurement process, the City reserves, holds without limitation, and may exercise, at its sole discretion, the following rights and conditions:
 - 1. To terminate the procurement process or decide not to award a contract as a result thereof by written notice to the Suppliers for any reason whatsoever with or without substitution of another solicitation.
 - 2. To waive any defect, technicality, or any other minor informality or irregularity in any submittal, or any other response from Suppliers.
 - 3. To issue addenda for any purpose including:
 - a. To make minor or major changes or alterations to the evaluation, selection and/or performance schedule(s) for any events associated with a procurement.
 - b. To supplement, amend, reduce, cancel, or otherwise modify a Solicitation, including but not limited to modifications to the description of services and/or products contained in the solicitation, by omitting services/products and/or including services/products.
 - 4. To request clarifications, additional information, and/or revised Submittals from one or more Suppliers.
 - 5. To conduct investigations with respect to the qualifications and experience of Supplier(s), including inspection of facilities and to request additional evidence to support any such information.

6. To eliminate any Supplier that submits an incomplete or inadequate response, or is non-responsive to the requirements of a Solicitation, or is otherwise deemed to be unqualified during any stage of the procurement process.
7. To select and interview a single finalist or multiple finalists to further the City's evaluation of Submittals provided in response to a Solicitation. The City may, in its sole and exclusive discretion as to what is in the City's best interest, elect not to conduct interviews of any or all Suppliers in connection with a solicitation process.
8. Except in the case of Requests for Bids, to negotiate any rate/fee offered by a Supplier. The City shall have the sole right to make the final rate/fee offer during contract negotiations. If the selected Supplier does not accept the City's final offer, the City may, in its sole discretion discontinue contract negotiations and commence negotiations with another Supplier, except as otherwise provided in Chapter 39.80, RCW.
9. To select and enter into a Contract with one or more Suppliers whose Submittal best satisfies the interests of the City and is most responsive, in the sole judgment of the City, to the requirements of a Solicitation.
10. To award by line item or group of line items.
11. To not award one or more items.
12. To issue additional or subsequent solicitations.
13. To seek partnerships between one or more Suppliers.
14. Request additional related products and services from the selected Supplier(s) as necessary throughout the term of the Contract.
15. Negotiate costs or fees in the event of new legislation or regulatory changes, or issuance of related compliance guidance, technology enhancements, and innovative solutions.
16. In the event the City receives questions concerning a Solicitation from one or more Suppliers prior to the deadline for response, the City reserves the right to provide such questions, and the City's responses, if any, to all Suppliers.
17. If an award is made and, prior to entering into a contract, subsequent information indicates that such award is not in the best interest of the City, the City may rescind the award without prior notice to Supplier and either award to another Supplier or reject all submittals or cancel this solicitation.
18. To cancel award of a contract at any time before execution of the Contract by both parties if cancellation is deemed to be in the City's best interest. In providing a submittal, Suppliers agree that the City is not liable for any costs or damages for the cancellation of an award. Supplier assumes the sole risk and responsibility for all expenses connected with the preparation of its submittal.
19. To add additional City departments or divisions to the Contract or develop a separate Contract with the Supplier subject to all terms, conditions and pricing of the original Contract
20. To take any other action affecting a Solicitation or a procurement process that is determined to be in the City's best interests.

1.19 SUBMITTAL CLARIFICATION

Suppliers may be asked to clarify their Submittal. This action shall not be construed as negotiations or any indication of intentions to award. If called upon, Supplier must respond to such requests within two business days or the timeframe set forth by the City in its request for clarification. Supplier's failure to respond to such a request may result in rejection of its Submittal.

1.20 EVALUATION OF SUBMITTALS

- A. The City of Tacoma reserves the right to award to the lowest and best responsible Supplier(s) delivering a Submittal in compliance with the Solicitation, provided such Submittals are reasonable and are in the best interest of the City to accept. The City may use a number of criteria for determining award, including evaluation factors set forth in Municipal Code Section 1.06.262. Suppliers who are inexperienced or who fail to properly perform other contracts may have their submittal rejected for such cause.

1. Evaluation Factors. In addition to the factors set forth in Municipal Code Section 1.06.262, the following may be used by the City in determining the lowest and best responsible Submittal:
 - a. Compliance with a Solicitation and with applicable City requirements, including by not limited to, the City's Ethics Code and its Small Business Enterprise and Local Employment and Apprenticeship programs.
 - b. Submittal prices, listed separately if requested, as well as a lump sum total (if the unit price does not compute to the extended total price, the unit price shall govern).
 - c. The total cost to the City, including all applicable taxes, may be the basis for contract award.
 - d. Time of delivery and/or completion of performance (delivery date(s) offered).
 - e. Warranty terms.
 - f. Quality of performance of previous contracts or services, including safety requirements and past compliance with the City's Ethics Code.
 - g. Previous and existing compliance with laws and ordinances relating to contracts or services.
 - h. Sufficiency of financial resources.
 - i. Quality, availability, and adaptability of the supplies or services to the particular use required.
 - j. Ability to provide future maintenance and service on a timely basis.
 - k. Location of nearest factory authorized warranty repair facility or parts dealership.
 - l. Ability, capacity, experience, stability, reputation, integrity, character, judgment, technical qualifications, and skill to perform the contract or provide the services required.
2. Prompt Payment Discount. Payment discount periods of 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.
 - a. 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.
3. All other elements or factors, whether or not specifically provided for in a Solicitation, which would affect the final cost to, and the benefits to be derived by, the City, may be considered in determining the award of a Contract. The final award decision will be based on the best interests of the City.

1.21 CONTRACT OBLIGATION

- A. The Submittal contents of the successful Supplier will become contractual obligations if a Contract ensues.
- B. In the event the City of Tacoma determines to award a Contract, the selected Supplier(s) may be requested to execute Additional Contract Documents.
- C. Supplier shall register with the City of Tacoma on the SAP Ariba Network and be enabled for transactions upon request by the City.
- D. Suppliers may propose amendments to City's Contract documents or to these Terms and Conditions, but the City retains the right to accept or reject proposed amendments.
- E. No costs chargeable for work under the proposed Contract may be incurred before mutual acceptance and execution as directed.

1.22 AWARD

The City reserves the right to award Contracts for any or all items to one or more Suppliers in the best interests of the City.

1.23 SUPPLIER'S REFUSAL TO ENTER INTO CONTRACT

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

1.24 LEGAL HOLIDAYS

- A. The City of Tacoma observes the following holidays, which shall apply to performance of all contracts:

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

- B. 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.

1.25 CONTRACT TERM

All services shall be satisfactorily completed and all deliverables provided by the termination date stated, and the Contract shall expire on said date unless mutually extended in writing by the parties.

1.26 EXTENSION OF CONTRACT

Contracts shall be subject to extension at City's sole discretion.

1.27 TERMINATION AND SUSPENSION

- A. Supplies. The City reserves the right to terminate a Contract at any time upon prior written notice to Supplier. 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.
- B. Services. The City may terminate a Contract at any time, with or without cause, by giving 10 business days 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.
- C. Suspension. For either services or supplies, the City may suspend a Contract, at its sole discretion, upon three business days' written notice to Supplier. Such notice shall indicate the anticipated period of suspension. Any reimbursement for expenses incurred due to the suspension shall be limited to Supplier's actual expenses and shall be subject to verification. Supplier shall resume performance of services under the Contract without delay when the suspension period ends.
- D. Termination or suspension of a Contract by City shall not constitute a waiver of any claims or remaining rights the City may have against Supplier relative to performance under a Contract.

1.28 DEFAULT/BREACH

In the event of material default or breach by Supplier on any of the conditions of a Contract, Supplier agrees that the City may, at its election, procure the goods or services from other sources, and may deduct from the unpaid balance due Supplier, or collect against the bond or security (if any), or may invoice and recover from Supplier all costs paid in excess of the price(s) set forth in the Contract.

- A. Supplies. The City at any time by written change order or other form of written contract amendment may make reasonable changes in the place of delivery, installation, or inspection, the method of shipment or packing, identification and ancillary matters that Supplier may accommodate without substantial additional expense.
- B. Services. The City shall have the right to make changes within the general scope of services and/or deliverables upon execution in writing of a change order or other written form of contract amendment. If the changes will result in additional work effort by Supplier the City agrees to reasonably compensate Supplier for such additional effort up to the maximum amount specified in the Contract or as otherwise provided by Tacoma Municipal Code. Any new services accepted by the City may be added to the Contract and/or substituted for discontinued services. New services shall meet or exceed all requirements of original award.
- C. Expansion Clause. A Contract may be further expanded in writing to include other related services or products normally offered by Supplier, as long as the price of such additional services or products have a profit margin equal to or less than that in place at the time of original submittal. Such additions and prices will be established in writing. New items not meeting these criteria will not be added to the Contract. Supplier profit margins are not to increase as a result any such expansion.

1.29 SCOPE OF SERVICES

Supplier agrees to diligently and completely perform the services required by a Contract.

1.30 SERVICES DO NOT INCLUDE PUBLIC WORK

Unless otherwise stated, the services and/or work contracted for herein exclude public work and improvements as defined in RCW 39.04, as that statute may hereafter be amended.

1.31 PREVAILING WAGES

- A. 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.
- B. If applicable, a Schedule of Prevailing Wage Rates 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 the provisions of Chapter 39.12 RCW, as amended, relating to prevailing wages and usual fringe benefits,
 - 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
 - 3. Immediately upon award of the Contract, contact the Department of Labor and Industries, Prevailing Wages section, Olympia, Washington, to obtain full information, forms and procedures relating to these matters. Per such procedures, a Statement of Intent to Pay Prevailing Wages 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 must be received or verified by the City prior to final Contract payment.

1.32 CONTRACT PRICING

- A. Submitted prices shall include costs of submittal preparation, servicing of the account, all contractual requirements during contract period such as transportation, permits, insurance costs, bonds, labor, wages, materials, tools, components, equipment, and appurtenances necessary to complete the work, which shall conform to the best practice known to the trade in design, quality, material, and workmanship.
- B. Surcharges of any type will not be paid.
- C. If applicable, related additional products and corresponding services of benefit to the City not specifically required in a solicitation, but which Supplier offers to provide, may be included with the submittal. Supplier may request to add new products if the City approves them and Supplier can demonstrate the pricing is from the same pricing structure/profit margin.
- D. Unless specifically stated otherwise, only firm prices will be accepted and all prices shall remain firm during the term of a Contract.
- E. Price increases may at City's discretion be passed along during a contract period if the increase is mandated by statute, or the result of a tariff.
- F. By submitting prices, Supplier warrants prices equal to or better than the equivalent prices, terms, and benefits offered by Supplier to any other government unit or commercial customer.
- G. Should Supplier, during the term of a Contract, enter into any other contract, agreement or arrangement that provides lower prices, more favorable terms or greater benefits to any other government unit or commercial customer, the Contract with the City shall thereupon be deemed amended to provide the same price or prices, terms and benefits to the City. This provision applies to comparable products and purchase volumes by the City that are not less than the purchase volumes of the government unit or commercial customer that has received the lower prices, greater benefits, or more favorable terms.
- H. If at any time during the term of the Contract, Supplier reduces prices to other buyers purchasing approximately the same quantities stated on the Contract, Supplier will immediately notify the City purchasing manager of such fact, and the price(s) for future orders under the Contract shall be reduced accordingly.
- I. The City is entitled to any promotional pricing during the Contract period.
- J. Price decreases shall be immediately passed on to the City.

- K. The City reserves the right to increase or decrease the quantities of any item awarded pursuant to the Contract and pay according to the unit prices quoted in the submittal with no adjustments for anticipated profit.

1.33 APPROVED EQUALS WHEN ALTERNATES ARE ALLOWED

- 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 Supplier specifies the brand and model, and provides all descriptive literature, independent test results, specification sheets, schematic drawings, photographs, product samples, local servicing, parts availability, etc., to enable the City to evaluate the proposed equal. Performance testing in the field may be required.
- 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 Supplier 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 Supplier's expense.
- C. When a brand name or level of quality is not stated in Supplier's submittal, it is understood Supplier's submittal shall exactly confirm with those required in the Contract. If more than one brand name is stated in a Solicitation, Supplier(s) must indicate the brand and model/part number to be supplied.

1.34 RISK OF LOSS, SHIPPING AND DELIVERY

- A. Shipping. Prices must be quoted FOB destination (the place of destination as defined in RCW 62A.2-319, as that statute may hereafter be amended), with freight prepaid and allowed (shipping costs included in unit prices), and risk of loss remaining with Supplier until delivery is tendered.
- B. Delivery. Delivery will be to the designated addresses set forth in a Solicitation or as otherwise stated in the Contract. Deliveries shall be between 9:00 a.m. and 3:30 p.m., Monday through Friday only, except Legal Holidays. Failure to make timely delivery shall be cause for termination of the contract or order and return of all or part of the items at Supplier's expense except in the case of force majeure.

1.35 DELIVERY OF PRODUCTS AND PROVISION OF SERVICES – IDLING PROHIBITED

- A. The City of Tacoma has a commitment to reduction of unnecessary fuel emissions and improving air quality by reducing unnecessary air pollution from idling vehicles. Limiting car and truck idling supports cleaner air, healthier work environments, the efficient use of city resources, the public's enjoyment of City properties and programs, conservation of natural resources, and good stewardship practices.
- B. Vehicles and/or diesel fuel trucks shall not idle at the time and location of the delivery to the City of Tacoma for more than three minutes. The City requires contractors to utilize practices that reduce fuel consumption and emission discharge, including turning off trucks and vehicles during delivery of products to the City. Exceptions to this requirement include when associated power is necessary to make a delivery or provide the service, when the engine is used to provide power to another device, and when a running engine is required for proper warm-up and cool-down of the engine.

1.36 PACKING SLIPS AND INVOICES

- A. Each invoice shall show City of Tacoma purchase order number, release number if applicable, quantity, unit of measure, item description, unit price and extended price for each line if applicable, services and deliverables provided if applicable. Line totals shall be summed to give a grand total to which sales tax shall be added, if applicable.
 - 1. For transactions conducted in SAP Ariba, invoices shall be submitted through Ariba.
 - 2. For invoices paid by ACH or by check, unless stated otherwise, invoices shall be electronically submitted by email with corresponding PO number listed in the subject line to accountspayable@cityoftacoma.org.
 - 3. For invoices paid by credit card, invoices shall also display the last name of the cardholder and last four digits (only) of the card number (e.g., Jones/6311). Unless stated otherwise, invoices shall be electronically submitted by email with corresponding PO number listed in the subject line to (do not combine different POs into one invoice or charge) to pcardadmin@cityoftacoma.org.
- B. Any terms, provisions or language in Supplier's invoice(s) that conflict with the terms of the Contract are superseded and shall not apply to the Contract unless expressly accepted in writing by the City.
- C. 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.

- D. Supplier shall package orders, preferably in environmental friendly packaging such as reduced packaging and recyclable packing materials.

1.37 COOPERATIVE PURCHASING

The Washington State Interlocal Cooperation Act RCW 39.34 provides that other governmental agencies may purchase goods and services based on the Contract with the City in accordance with the terms and prices of the Contract if all parties are agreeable. Each public agency shall formulate a separate contract with Supplier, incorporating the terms and conditions of the Contract with the City of Tacoma. The City shall incur no liability in connection with such contracts or purchases by other public agencies thereunder. It will be Supplier's responsibility to inform such public agencies of the Contract with the City. Supplier shall invoice such public agencies as separate entities.

1.38 TAXES

- A. Unless otherwise stated, applicable federal, state, City, and local taxes shall be included in the submittal and in contract as indicated below. As used herein, the term "taxes" shall include any and all taxes, assessments, fees, charges, interest, penalties, and/or fines imposed by applicable laws and regulations in connection with the procurement of goods and/or services hereunder.
 - 1. Federal Excise Tax. The City of Tacoma is exempt from federal excise tax. The City will furnish a Federal Excise Tax Exemption certificate, if required. If Supplier fails to include any applicable tax in its submittal, then Supplier shall be solely responsible for the payment of said tax.
 - 2. State and Local Sales Tax. The City of Tacoma is subject to Washington state sales tax. It is Supplier's obligation to state the correct sales tax percentage and include the applicable Washington state, city and local sales tax as a separate line item(s) in the submittal.
 - 3. City of Tacoma Business and Occupation Tax. It is Supplier's obligation to include City of Tacoma Business and Occupation tax in the unit and/or lump sum prices submitted; it shall not be shown separately on the submittal. Per Sub-Title 6A of the City of Tacoma Municipal Code, transactions with the City of Tacoma may be subject to the City's Business and Occupation Tax.
- B. Any or All Other Taxes. Any or all other taxes are the responsibility of Supplier unless otherwise required by law. Except for state sales tax, Supplier acknowledges that it is responsible for the payment of all taxes applicable to the Contract and Supplier agrees to comply with all applicable laws regarding the reporting of income, maintenance of records, and all other requirements and obligations imposed pursuant to applicable law.
- C. If the City is assessed, made liable, or responsible in any manner for taxes contrary to the provisions of the Contract, Supplier agrees to hold the City harmless from such costs, including attorney's fees. In the event Supplier fails to pay any taxes, assessments, penalties, or fees imposed by any governmental body, including a court of law, other than those taxes the City is required to pay, then Supplier authorizes the City to deduct and withhold or pay over to the appropriate governmental body those unpaid amounts upon demand by the governmental body. It is agreed that this provision shall apply to taxes and fees imposed by City ordinance. Any such payments shall be deducted from Supplier's total compensation.

1.39 COMPENSATION

- A. The City shall compensate Supplier in accordance with the Contract. Said compensation shall be the total compensation for Supplier's performance hereunder including, but not limited to, all work, services, deliverables, materials, supplies, equipment, subcontractor's fees and all reimbursable travel and miscellaneous or incidental expenses to be incurred by Supplier. Unless stated otherwise the total stated compensation may not be changed without a written change order or other form of contract amendment.
- B. Payment(s) made in accordance with the Contract shall fully compensate Supplier for all risk, loss, damages or expense of whatever nature, and acceptance of payment shall constitute a waiver of all claims submitted by Supplier.

1.40 PAYMENT TERMS

- A. Payment shall be made through the City's ordinary payment process, and shall be considered timely if made within 30 days of receipt of a properly completed invoice. All payments shall be subject to adjustment for any amounts, upon audit or otherwise, determined to have been improperly invoiced.

The City may withhold payment to Supplier for any services or deliverables not performed as required hereunder until such time as Supplier modifies such services or deliverables to the satisfaction of the City.

- B. Invoices will not be processed for payment, nor will the period of cash discount commence, until all invoiced items are received and satisfactory performance of the Contract has been attained. Upon CITY'S request, Supplier shall submit necessary and appropriate documentation, as determined by the CITY, for all invoiced services and deliverables. 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.

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

- A. Payment methods include:

1. 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:
 - a. 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.
 - b. Supplier retrieves card account through the secure, on-line portal provided via email notifications sent by the City's commercial card provider.
2. 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.
 - a. Suppliers must be PCI-DSS compliant (secure credit card data management) and federal FACTA (sensitive card data display) compliant.
 - b. 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.
3. Electronic Funds Transfer (EFT) by Automated Clearing House (ACH). Standard terms are net 30 for this payment method.
4. 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.

1.42 NOTICES

Unless otherwise specified, except for routine operational communications, which may be delivered personally or transmitted by electronic mail, all notices required by the Contract shall be in writing and shall be deemed to have been duly given if delivered personally or mailed first-class mail, postage prepaid, to Supplier's registered agent and to the applicable City department representative.

1.43 INDEPENDENT CONTRACTOR STATUS

- A. Supplier is considered an independent contractor who shall at all times perform his/her duties and responsibilities and carry out all services as an independent contractor and shall never represent or construe his/her status to be that of an agent or employee of the City, nor shall Supplier be eligible for any employee benefits. No payroll or employment taxes or contributions of any kind shall be withheld or paid by the City with respect to payments to Supplier. Supplier shall be solely responsible for all said payroll or employment taxes and/or contributions including, but not limited to, FICA, FUTA, federal income tax, state personal income tax, state disability insurance tax and state unemployment insurance tax. If the City is assessed, made liable or responsible in any manner for such taxes or contributions, Supplier agrees to indemnify and hold the City harmless from all costs incurred, including attorney fees.

- B. Unless otherwise specified in writing, Supplier shall provide at its sole expense all materials, working space, and other necessities and instruments to perform its duties under the Contract. Supplier, at its sole expense, shall obtain and keep in force any and all applicable licenses, permits and tax certificates necessary to perform the Contract.

1.44 NONDISCRIMINATION

Supplier agrees to take all steps necessary to comply with all federal, state, and City laws and policies regarding non-discrimination and equal employment opportunities. Supplier shall not discriminate in any employment action because 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 handicap. In the event of non-compliance by Supplier with any of the non-discrimination provisions of the Contract, the City shall be deemed to have cause to terminate the Contract, in whole or in part.

1.45 FEDERAL, STATE, AND MUNICIPAL LAWS AND REGULATIONS

Supplier shall comply with all federal, state, municipal, and/or local laws and regulations in the performance of all terms and conditions of the Contract. Supplier shall be solely responsible for all violations of the law from any cause in connection with its performance of work under the Contract.

1.46 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.

1.47 REPORTS, RIGHT TO AUDIT, PERSONNEL

- A. Reports. Supplier shall, at such times and in such form as the City may reasonably require, furnish the City with periodic status reports pertaining to the services undertaken or goods provided pursuant to the Contract.
- B. Right to Audit. Upon City's request, Supplier shall make available to City all accounts, records and documents related to the scope of work for City's inspection, auditing, or evaluation during normal business hours as reasonably needed by City to assess performance, compliance and/or quality assurance under the Contract or in satisfaction of City's public disclosure obligations as applicable.
- C. Personnel. If before, during, or after the execution of a Contract, Supplier has represented or represents to the City that certain personnel would or will be responsible for performing services pursuant to the Contract, then Supplier is obligated to ensure that said personnel perform said Contract services to the maximum extent permitted by law. Substantial organizational or personnel changes within Supplier's firm are expected to be communicated to City immediately. Failure to do so could result in termination of the Contract. This provision shall only be waived by written authorization by the City, and on a case-by-case basis.

1.48 INSURANCE

- A. During the course and performance of a Contract, Supplier 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.

1.49 INDEMNIFICATION – HOLD HARMLESS

- A. Supplier agrees to indemnify, defend, and hold harmless the City of Tacoma, its officers, agents and employees, from and against any and all liability which may accrue to or be sustained by the City of Tacoma for any claim, suit or legal action made or brought against the City for the death of or injury to persons (including Supplier's or subcontractor's employees), or damage to property involving Supplier or subcontractor(s) and their employees or agents, or for any other cause arising out of and in

connection with or incident to the performance of the Contract, except for injuries or damages caused by the sole negligence of the City. In this regard, Supplier recognizes it is waiving immunity under Industrial Insurance Law, Title 51 RCW. This indemnification includes attorney's fees and the cost of establishing the right to indemnification hereunder in favor of the City of Tacoma. By Supplier's acceptance of this order, he/she agrees that this subsection has been mutually negotiated.

B. These indemnifications shall survive the termination of a Contract.

1.50 CONFLICT OF INTEREST

No officer, employee, or agent of the City, nor any member of the immediate family of any such officer, employee or agent as defined by City ordinance, shall have any personal financial interest, direct or indirect, in a Contract, either in fact or in appearance. Supplier shall comply with all federal, state, and City conflict of interest laws, statutes, and regulations. Supplier represents that Supplier presently has no interest and shall not acquire any interest, direct or indirect, in the program to which the Contract pertains that would conflict in any manner or degree with the performance of Supplier's services and obligations hereunder. Supplier further covenants that, in performance of a Contract, no person having any such interest shall be employed. Supplier also agrees that its violation of the City's Code of Ethics contained in Chapter 1.46 of the Tacoma Municipal Code shall constitute a breach of Contract subjecting the Contract to termination.

1.51 CITY OWNERSHIP OF WORK/RIGHTS IN DATA/PUBLICATIONS

- A. To the extent that Supplier creates any work subject to the protections of the Copyright Act (Title 17 U.S.C.) in its performance of a Contract, Supplier agrees to the following: The work has been specially ordered and commissioned by the City. Supplier agrees that the work is a "work made for hire" for copyright purposes, with all copyrights in the work owned by City. To the extent that the work does not qualify as a work made for hire under applicable law, and to the extent that the work includes material subject to copyright, Supplier hereby assigns to City, its successors and assigns, all right, title and interest in and to the work, including but not limited to, all copyrights, patent, trade secret and other proprietary rights, and all rights, title and interest in and to any inventions and designs embodied in the work or developed during the course of Supplier's creation of the work.
- B. Supplier shall be solely responsible for obtaining releases and/or licenses for the reproduction, distribution, creation of derivative works, performance, display, or other use of copyrighted materials. Should Supplier fail to obtain said releases and/or licenses, Supplier shall indemnify, defend, and hold harmless the City for any claim resulting there from.

1.52 DUTY OF CONFIDENTIALITY

Supplier acknowledges that unauthorized disclosure of information or documentation concerning the Scope of Work hereunder may cause substantial economic loss or harm to the City. Except for disclosure of information and documents to Supplier's employees, agents, or subcontractors who have a substantial need to know such information in connection with Supplier's performance of obligations under the Contract, Supplier shall not without prior written authorization by the City allow the release, dissemination, distribution, sharing, or other publication or disclosure of information or documentation obtained, discovered, shared or produced pursuant to a Contract.

1.53 DISPUTE RESOLUTION

In the event of a dispute pertaining to a Contract, the parties agree to attempt to negotiate in good faith an acceptable resolution. If a resolution cannot be negotiated, then the parties agree to submit the dispute to voluntary non-binding mediation before pursuing other remedies. This provision does not limit the City's right to terminate.

1.54 GOVERNING LAW AND VENUE

- A. 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.
- B. 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.

1.55 ASSIGNMENT

Supplier shall not assign, subcontract, delegate or transfer any obligation, interest or claim to or under the Contract without the prior written consent of the City.

1.56 WAIVER

A waiver or failure by either party to enforce any provision of the contract shall not be construed as a continuing waiver of such provisions, nor shall the same constitute a waiver of any other provision of the Contract.

1.57 SEVERABILITY AND SURVIVAL

If any term, condition or provision herein or incorporated by reference is declared void or unenforceable or limited in its application or effect, such event shall not affect any other provisions hereof and all other provisions shall remain fully enforceable. The provisions of the Contract, which by their sense and context are reasonably intended to survive the completion, expiration or cancellation of the Contract, shall survive termination of the Contract.

1.58 NO CITY LIABILITY

Neither the City, its officials, staff, agents, employees, representatives, or consultants will be liable for any claims or damages resulting from any aspect of this procurement process.

1.59 SIGNATURES

A signed copy of Submittals, Contract documents, including but not limited to contract amendments, contract exhibits, task orders, statements of work and other such Contract related documents, delivered by email or other means of electronic transmission including by using a third party service, which service is provided primarily for the electronic execution of electronic records, shall be deemed to have the same legal effect as delivery of an original signed copy.

CITY OF TACOMA MODIFICATIONS TO THE
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**CITY OF TACOMA MODIFICATIONS TO THE
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PART 1 GENERAL PROVISIONS

1.01 DEFINITIONS

Replace the following article in Section 1.01:

- Q. "Owner" means the City or its authorized representative with the authority to enter into, administer, and/or terminate the Work in accordance with the Contract Documents and make related determinations and findings.

Add the following articles to Section 1.01:

- AC. "Abbreviations" refer to trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the specifications or other contract documents, they mean recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.
- AD. "Alternate Bid" (or Alternate) is an amount stated in the Bid to be added or deducted from the amount of the base Bid if the corresponding change in project scope or materials or methods of construction described in the Bidding Documents is accepted.
- AE. "Base Bid" is the sum stated in the Bid for which the Bidder offers to perform the work described as the base, to which work may be added or deducted for sums stated in Alternate Bids and Unit Prices. The base bid does not include Allowances, Force Account work and Washington State Sales taxes. Owner shall pay Contractor the Contract Sum plus state sales tax for performance of the Work, in accordance with the Contract Documents.
- AF. "Contracting Agency" (or Owner) is the City of Tacoma.
- AG. "Contract Provisions" is the publication addressing the work required for an individual project. At the time of the call for bids, the contract provisions may include, for a specific individual project, the general conditions, supplements to the general conditions, the special provisions, a listing of the applicable standard plans, the prevailing minimum hourly wage rates, contract forms, affirmative action requirements, L.E.A.P. and SBE.
- AH. "Furnish" is used to mean supply and deliver to the project site, ready for unloading, unpacking, assembly, installation and other.
- AI. "Indicated" refers to graphic representations, notes or schedules on the drawings, or other paragraphs or schedules in the specifications, and similar requirements in the contract documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help the reader locate the reference; no limit on location is intended.
- AJ. "Install" is used to describe operations at the project site including the actual unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

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- AK. “Installer” is the contractor or an entity engaged by the contractor, either as an employee, subcontractor, or contractor of lower tier for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
- AL. “Provide” means to furnish and install, complete and ready for intended use.
- AN. “Unit Price” is an amount stated in the Bid as a price per unit of measurement for materials or services as described in the Contract Documents.

1.03 EXECUTION AND INTENT

Add the following to Section 1.03:

4. The intent of the contract is to be prescribing a complete work. Omissions from the contract of details of work, which are necessary to carry out the contract, shall not relieve the Contractor from performing the omitted work.

1.04 OBJECTIONS TO APPLICATION OF PRODUCTS

Add the following new Section 1.04:

Bidders for this project are required to thoroughly familiarize themselves with specified products and installation procedures and submit to the Senior Buyer any questions or objections (in writing) no later than **the date specified on the “Bidder Question Form.”** Submittal of Bid constitutes acceptance of products and procedures specified.

1.05 DISQUALIFICATION OF BIDDERS

Add the following new Section 1.05:

A bidder may be deemed not responsible and the proposal rejected by the Owner for any of the following:

- A. More than one bid proposal is submitted for the same project from a bidder under the same or different names;
- B. Evidence of collusion exists with any other bidder. Participants in collusion will be restricted from submitting future bids;
- C. A bidder is not pre-qualified for the work or to the full extent of the bid;
- D. An unsatisfactory performance record exists based on past or current work;
- E. There is incomplete work which may hinder or prevent the prompt completion of the work bid upon;
- F. The bidder failed to settle bills for labor or materials on past or current contracts;
- G. The bidder has failed to complete a written public contract or has been convicted of a crime arising from a previous public contract;
- H. The bidder is unable, financially or otherwise, to perform the work;
- I. A bidder is not authorized to do business in the state of Washington;

**CITY OF TACOMA MODIFICATIONS TO THE
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- J. Failure by the contractor to properly review the project documents and/or site;
- K. The bid proposal was not received by the submittal deadline;
- L. The contractor fails to meet the SBE requirements as described in these documents;
- M. Receipt of addenda is not acknowledged; or
- N. There are any other reasons deemed proper by the Owner.

1.06 PRE-AWARD INFORMATION

Add the following new Section 1.06:

Before awarding any contract, the Owner may require one or more of these items or actions of the apparent lowest responsible bidder:

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
2. Samples of these materials for quality and fitness tests,
3. A progress schedule (in a form the Owner requires) showing the order of and time required for the various phases of the work,
4. A breakdown of costs assigned to any bid item,
5. Attendance at a conference with the Engineer or representatives of the Engineer,
6. Bid evaluation submittals related to the contractors ability to perform the work including experience on similar projects, project personnel and equipment, and financial resources, or
7. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

PART 2 INSURANCE AND BONDS

2.01 CONTRACTOR'S LIABILITY INSURANCE

Replace the entire Section 2.01 with the following:

Insurance shall be per the City's standard "City of Tacoma Insurance Requirements" provided in the Contract Forms section of the Project Manual.

2.02 COVERAGE LIMITS

Replace the entire Section 2.02 with the following:

Insurance shall be per the City's standard "City of Tacoma Insurance Requirements" provided in the Contract Forms section of the Project Manual.

**CITY OF TACOMA MODIFICATIONS TO THE
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2.03 INSURANCE COVERAGE CERTIFICATES

Replace the entire Section 2.03 with the following:

Insurance shall be per the City's standard "City of Tacoma Insurance Requirements" provided in the Contract Forms section of the Project Manual.

2.04 PAYMENT AND PERFORMANCE BONDS

Add the following to Section 2.04:

A Payment Bond and Performance Bond shall be obtained by the Contractor utilizing the forms entitled "Payment Bond to the City of Tacoma" and "Performance Bond to the City of Tacoma" as found at the front of the Project Manual under "Contract Forms".

2.06 BUILDER'S RISK

Replace the entire Section 2.06 with the following:

Insurance shall be per the City's standard "City of Tacoma Insurance Requirements" provided in the Contract Forms section of the Project Manual.

PART 3 TIME AND SCHEDULE

3.07 DAMAGES FOR FAILURE TO ACHIEVE TIMELY COMPLETION

Delete Section 3.07 B – Actual Damages.

PART 5 PERFORMANCE

5.04 PREVAILING WAGES

Replace Section 5.04 G with the following.

- G. Certified Payrolls: Consistent with WAC 296-127-320, the Contractor and any subcontractor shall submit a certified copy of payroll records on a monthly basis.

5.14 AVAILABILITY AND USE OF UTILITY SERVICES

Delete Section 5.14 A – Owner to provide and charge for utilities.

**CITY OF TACOMA MODIFICATIONS TO THE
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5.15 TESTS AND INSPECTIONS

Replace Section 5.15 A with the following.

A. Testing and inspection of work:

Contractor shall maintain an adequate testing and inspection program and perform such tests and inspections as are necessary or required to ensure that the Work conforms to the requirements of the Contract Documents. Contractor shall be responsible for inspection and quality surveillance of all its Work and all Work performed by any Subcontractor. Unless otherwise provided, Contractor shall make arrangements for such tests, inspections, and approvals or entity acceptable to Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. Contractor shall give Owner timely notice of when and where tests and inspections are to be made. Contractor shall maintain complete inspection records and make them available to Owner.

Owner will contract separately with an independent testing laboratory for code required special inspections, if applicable. Contractor shall give Owner timely notice of when and where special inspections are to be made.

5.20 SUBCONTRACTORS AND SUPPLIERS

Delete Section 5.20 E – Automatic assignment of subcontracts.

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PART 1 - GENERAL PROVISIONS

1.01 DEFINITIONS

- A. "Application for Payment" means a written request submitted by Contractor to A/E for payment of Work completed in accordance with the Contract Documents and approved Schedule of Values, supported by such substantiating data as Owner or A/E may require.
- B. "Architect," "Engineer," or "A/E" means a person or entity lawfully entitled to practice architecture or engineering, representing Owner within the limits of its delegated authority.
- C. "Change Order" means a written instrument signed by Owner and Contractor stating their agreement upon all of the following: (1) a change in the Work; (2) the amount of the adjustment in the Contract Sum, if any, and (3) the extent of the adjustment in the Contract Time, if any.
- D. "Claim" means Contractor's exclusive remedy for resolving disputes with Owner regarding the terms of a Change Order or a request for equitable adjustment, as more fully set forth in Part 8.
- E. "Contract Award Amount" is the sum of the Base Bid and any accepted Alternates.
- F. "Contract Documents" means the Advertisement for Bids, Instructions for Bidders, completed Bid Form, General Conditions, Modifications to the General Conditions, Supplemental Conditions, Public Works Contract, other Special Forms, Drawings and Specifications, and all addenda and modifications thereof.
- G. "Contract Sum" is the total amount payable by Owner to Contractor, for performance of the Work in accordance with the Contract Documents, including all taxes imposed by law and properly chargeable to the Work, except Washington State sales tax.
- H. "Contract Time" is the number of calendar days allotted in the Contract Documents for achieving Substantial Completion of the Work.
- I. "Contractor" means the person or entity who has agreed with Owner to perform the Work in accordance with the Contract Documents.
- J. "Day(s):" Unless otherwise specified, day(s) shall mean calendar day(s)."
- K. "Drawings" are the graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, and may include plans, elevations, sections, details, schedules, and diagrams.
- L. "Final Acceptance" means the written acceptance issued to Contractor by Owner after Contractor has completed the requirements of the Contract Documents, as more fully set forth in Section 6.09 B.
- M. "Final Completion" means that the Work is fully and finally complete in accordance with the Contract Documents, as more fully set forth in Section 6.09 A.
- N. "Force Majeure" means those acts entitling Contractor to request an equitable adjustment in the Contract Time, as more fully set forth in paragraph 3.05A.
- O. "Notice" means a written notice that has been delivered to the authorized representative or officer of the addressed party by registered or certified mail, or by email as a PDF attachment. Notices should clearly identify the project number and date of notice.

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- P. "Notice to Proceed" means a notice from Owner to Contractor that defines the date on which the Contract Time begins to run.
- Q. "Owner" means the state agency, institution, or its authorized representative with the authority to enter into, administer, and/or terminate the Work in accordance with the Contract Documents and make related determinations and findings.
- R. "Person" means a corporation, partnership, business association of any kind, trust, company, or individual.
- S. "Prior Occupancy" means Owner's use of all or parts of the Project before Substantial Completion, as more fully set forth in Section 6.08 A.
- T. "Progress Schedule" means a schedule of the Work, in a form satisfactory to Owner, as further set forth in Section 3.02.
- U. "Project" means the total construction of which the Work performed in accordance with the Contract Documents may be the whole or a part and which may include construction by Owner or by separate contractors.
- V. "Project Record" means the separate set of Drawings and Specifications as further set forth in paragraph 4.02A.
- W. "Schedule of Values" means a written breakdown allocating the total Contract Sum to each principal category of Work, in such detail as requested by Owner.
- X. "Specifications" are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.
- Y. "Subcontract" means a contract entered into by Subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind for or in connection with the Work.
- Z. "Subcontractor" means any person, other than Contractor, who agrees to furnish or furnishes any supplies, materials, equipment, or services of any kind in connection with the Work.
- AA. "Substantial Completion" means that stage in the progress of the Work when the construction is sufficiently complete, as more fully set forth in Section 6.07.
- AB. "Work" means the construction and services required by the Contract Documents, and includes, but is not limited to, labor, materials, supplies, equipment, services, permits, and the manufacture and fabrication of components, performed, furnished, or provided in accordance with the Contract Documents.

1.02 ORDER OF PRECEDENCE

Any conflict or inconsistency in the Contract Documents shall be resolved by giving the documents precedence in the following order:

1. Signed Public Works Contract, including any Change Orders.
2. Supplemental Conditions.
3. Modifications to the General Conditions.
4. General Conditions.
5. Specifications. Provisions in Division 1 shall take precedence over provisions of any other Division.

6. Drawings. In case of conflict within the Drawings, large-scale drawings shall take precedence over small-scale drawings.
7. Signed and Completed Bid Form.
8. Instructions to Bidders.
9. Advertisement for Bids.

1.03 **EXECUTION AND INTENT**

Contractor Representations: Contractor makes the following representations to Owner:

1. Contract Sum reasonable: The Contract Sum is reasonable compensation for the Work and the Contract Time is adequate for the performance of the Work, as represented by the Contract Documents;
2. Contractor familiar with project: Contractor has carefully reviewed the Contract Documents, visited and examined the Project site, become familiar with the local conditions in which the Work is to be performed, and satisfied itself as to the nature, location, character, quality and quantity of the Work, the labor, materials, equipment, goods, supplies, work, services and other items to be furnished and all other requirements of the Contract Documents, as well as the surface and subsurface conditions and other matters that may be encountered at the Project site or affect performance of the Work or the cost or difficulty thereof;
3. Contractor financially capable: Contractor is financially solvent, able to pay its debts as they mature, and possesses sufficient working capital to complete the Work and perform Contractor's obligations required by the Contract Documents; and
4. Contractor can complete Work: Contractor is able to furnish the plant, tools, materials, supplies, equipment and labor required to complete the Work and perform the obligations required by the Contract Documents and has sufficient experience and competence to do so.

PART 2 – INSURANCE AND BONDS

2.01 **CONTRACTOR'S LIABILITY INSURANCE**

General insurance requirements: Prior to commencement of the Work, Contractor shall obtain all the insurance required by the Contract Documents and provide evidence satisfactory to Owner that such insurance has been procured. Review of the Contractor's insurance by Owner shall not relieve or decrease the liability of Contractor. Companies writing the insurance to be obtained by this part shall be licensed to do business under Chapter 48 RCW or comply with the Surplus Lines Law of the State of Washington. Contractor shall include in its bid the cost of all insurance and bond costs required to complete the base bid work and accepted alternates. Insurance carriers providing insurance in accordance with the Contract Documents shall be acceptable to Owner, and its A.M. Best rating shall be indicated on the insurance certificates.

- A. Term of insurance coverage: Contractor shall maintain the following insurance coverage during the Work and for one year after Final Acceptance. Contractor shall also maintain the following insurance coverage during the performance of any corrective Work required by Section 5.16.
 1. General Liability Insurance: Commercial General Liability (CGL) on an Occurrence Form. Coverage shall include, but not be limited to:
 - a. Completed operations/products liability;
 - b. Explosion, collapse, and underground; and
 - c. Employer's liability coverage.

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2. Automobile Liability Insurance: Automobile liability
- B. Industrial Insurance compliance: Contractor shall comply with the Washington State Industrial Insurance Act and, if applicable, the Federal Longshoremen's and Harbor Workers' Act and the Jones Act.
- C. Insurance to protect for the following: All insurance coverages shall protect against claims for damages for personal and bodily injury or death, as well as claims for property damage, which may arise from operations in connection with the Work whether such operations are by Contractor or any Subcontractor.
- D. Owner as Additional Insured: All insurance coverages shall be endorsed to include Owner as an additional named insured for Work performed in accordance with the Contract Documents, and all insurance certificates shall evidence the Owner as an additional insured.

2.02 COVERAGE LIMITS

A. Insurance Coverage Certificates and Policies

The Contractor shall furnish acceptable proof of insurance coverage on the state of Washington Certificate of Insurance form SF500A, dated 07/02/92 or ACORD form, as well as copies of insurance policies.

B. Required Insurance Coverages

1. For a contract less than \$100,000.00, the coverage required is:

- a. Comprehensive General Liability Insurance – The Contractor shall at all times during the term of this contract, at its cost and expense, carry and maintain general public liability insurance, including contractual liability, against claims for bodily injury, personal injury, death or property damage occurring or arising out of services provided under this contract. This insurance shall cover claims caused by any act, omission, or negligence of the Contractor or its officers, agents, representatives, assigns or servants. The limits of liability insurance, which may be increased as deemed necessary by the contracting parties, shall be:

Each Occurrence	\$1,000,000.00
General Aggregate Limits (other than products – commercial operations)	\$1,000,000.00
Products – Commercial Operations Limit	\$1,000,000.00
Personal and Advertising Injury Limit	\$1,000,000.00
Fire Damage Limit (any one fire)	\$50,000.00
Medical Expense Limit (any one person)	\$5,000.00

- b. If the contract is for underground utility work, then the Contractor shall provide proof of insurance for that above in the form of Explosion, Collapse and Underground (XCU) coverage.
- c. Employers Liability on an occurrence basis in an amount not less than \$1,000,000.00 per occurrence.
2. For contracts over \$100,000.00 but less than \$5,000,000.00 the contractor shall obtain the coverage limits as listed for contracts below \$100,000.00 and General Aggregate and Products – Commercial Operations Limit of not less than \$2,000,000.00.

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3. Coverage for Comprehensive General Bodily Injury Liability Insurance for a contract over \$5,000,000.00 is:

Each Occurrence	\$2,000,000.00
General Aggregate Limits (other than products – commercial operations)	\$4,000,000.00
Products – Commercial Operations limit	\$4,000,000.00
Personal and Advertising Injury Limit	\$2,000,000.00
Fire Damage Limit (any one fire)	\$50,000.00
Medical Expense Limit (any one Person)	\$5,000.00

4. For all Contracts – Automobile Liability: in the event that services delivered pursuant to this contract involve the use of vehicles or the transportation of clients, automobile liability insurance shall be required. If Contractor-owned personal vehicles are used, a Business Automobile Policy covering at a minimum Code 2 “owned autos only” must be secured. If Contractor employee’s vehicles are used, the Contractor must also include under the Business Automobile Policy Code 9, coverage for non-owned autos. The minimum limits for automobile liability is: \$1,000,000.00 per occurrence, using a combined single limit for bodily injury and property damage.
5. For Contracts for Hazardous Substance Removal (Asbestos Abatement, PCB Abatement, etc.)
- a. In addition to providing insurance coverage for the project as outlined above, the Contractor shall provide Pollution Liability insurance for the hazardous substance removal as follows:

<u>EACH OCCURRENCE</u>	<u>AGGREGATE</u>
\$500,000.00	\$1,000,000.00

or \$1,000,000.00 each occurrence/aggregate bodily injury and property damage combined single limit.

- i. Insurance certificate must state that the insurer is covering hazardous substance removal.
- ii. Should this insurance be secured on a “claims made” basis, the coverage must be continuously maintained for one year following the project’s “final completion” through official completion of the project, plus one year following.

For Contracts where hazardous substance removal is a subcomponent of contracted work, the general contractor shall provide to the Owner a certificate of insurance for coverage as defined in 5a. above. The State of Washington must be listed as an additional insured. This certificate of insurance must be provided to the Owner prior to commencing work.

2.03 INSURANCE COVERAGE CERTIFICATES

- A. Certificate required: Prior to commencement of the Work, Contractor shall furnish to Owner a completed certificate of insurance coverage.
- B. List Project info: All insurance certificates shall name Owner’s Project number and Project title.
- C. Cancellation provisions: All insurance certificates shall specifically require 45 Days prior notice to Owner of cancellation or any material change, except 30 Days for surplus line insurance.

2.04 PAYMENT AND PERFORMANCE BONDS

Conditions for bonds: Payment and performance bonds for 100% of the Contract Award Amount, plus state sales tax, shall be furnished for the Work, using the Payment Bond and Performance Bond form published by and available from the American Institute of Architects (AIA) – form A312. Prior to execution of a Change Order that, cumulatively with previous Change Orders, increases the Contract Award Amount by 15% or more, the Contractor shall provide either new payment and performance bonds for the revised Contract Sum, or riders to the existing payment and performance bonds increasing the amount of the bonds. The Contractor shall likewise provide additional bonds or riders when subsequent Change Orders increase the Contract Sum by 15% or more.

No payment or performance bond is required if the Contract Sum is \$150,000 or less and the Contractor or General Contractor/Construction Manager agrees that Owner may, in lieu of the bond, retain 10% of the Contract Sum for the period allowed by RCW 39.08.010.

2.05 ALTERNATIVE SURETY

When alternative surety required: Contractor shall promptly furnish payment and performance bonds from an alternative surety as required to protect Owner and persons supplying labor or materials required by the Contract Documents if:

- A. Owner has a reasonable objection to the surety; or
- B. Any surety fails to furnish reports on its financial condition if required by Owner.

2.06 BUILDER'S RISK

- A. Contractor to buy Property Insurance: Contractor shall purchase and maintain property insurance in the amount of the Contract Sum including all Change Orders for the Work on a replacement cost basis until Substantial Completion. For projects not involving New Building Construction, "Installation Floater" is an acceptable substitute for the Builder's Risk Insurance. The insurance shall cover the interest of Owner, Contractor, and any Subcontractors, as their interests may appear.
- B. Losses covered: Contractor property insurance shall be placed on an "all risk" basis and insure against the perils of fire and extended coverage and physical loss or damage including theft, vandalism, malicious mischief, collapse, false work, temporary buildings, debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for A/E's services and expenses required as a result of an insured loss.
- C. Waiver of subrogation rights: Owner and Contractor waive all subrogation rights against each other, any Subcontractors, A/E, A/E's subconsultants, separate contractors described in Section 5.20, if any, and any of their subcontractors, for damages caused by fire or other perils to the extent covered by property insurance obtained pursuant to this section or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by Owner as fiduciary. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

PART 3 – TIME AND SCHEDULE

3.01 PROGRESS AND COMPLETION

Contractor to meet schedule: Contractor shall diligently prosecute the Work, with adequate forces, achieve Substantial Completion within the Contract Time, and achieve Final Completion within a reasonable period thereafter.

3.02 CONSTRUCTION SCHEDULE

- A. Preliminary Progress Schedule: Unless otherwise provided in Division 1, Contractor shall, within 14 Days after issuance of the Notice to Proceed, submit a preliminary Progress Schedule. The Progress Schedule shall show the sequence in which Contractor proposes to perform the Work, and the dates on which Contractor plans to start and finish major portions of the Work, including dates for shop drawings and other submittals, and for acquiring materials and equipment.
- B. Form of Progress Schedule: The Progress Schedule shall be in the form of a Critical Path Method (CPM) logic network or, with the approval of the Owner, a bar chart schedule may be submitted. The scheduling of construction is the responsibility of the Contractor and is included in the contract to assure adequate planning and execution of the work. The schedule will be used to evaluate progress of the work for payment based on the Schedule of Values. The schedule shall show the Contractor's planned order and interdependence of activities, and sequence of work. As a minimum the schedule shall include:
1. Date of Notice to Proceed;
 2. Activities (resources, durations, individual responsible for activity, early starts, late starts, early finishes, late finishes, etc.);
 3. Utility Shutdowns;
 4. Interrelationships and dependence of activities;
 5. Planned vs. actual status for each activity;
 6. Substantial completion;
 7. Punch list;
 8. Final inspection;
 9. Final completion, and
 10. Float time

The Schedule Duration shall be based on the Contract Time of Completion listed on the Bid Form. The Owner shall not be obligated to accept any Early Completion Schedule suggested by the Contractor. The Contract Time for Completion shall establish the Schedule Completion Date.

If the Contractor feels that the work can be completed in less than the Specified Contract Time, then the Surplus Time shall be considered Project Float. This Float time shall be shown on the Project Schedule. It shall be available to accommodate changes in the work and unforeseen conditions.

Neither the Contractor nor the Owner have exclusive right to this Float Time. It belongs to the project.

- C. Owner comments on Progress Schedule: Owner shall return comments on the preliminary Progress Schedule to Contractor within 14 Days of receipt. Review by Owner of Contractor's schedule does not constitute an approval or acceptance of Contractor's construction means, methods, or sequencing, or its ability to complete the Work within the Contract Time. Contractor shall revise and resubmit its schedule, as necessary. Owner may withhold a portion of progress payments until a Progress Schedule has been submitted which meets the requirements of this section.

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- D. Monthly updates and compliance with Progress Schedule: Contractor shall utilize and comply with the Progress Schedule. On a monthly basis, or as otherwise directed by Owner, Contractor shall submit an updated Progress Schedule at its own expense to Owner indicating actual progress. If, in the opinion of Owner, Contractor is not in conformance with the Progress Schedule for reasons other than acts of Force Majeure as identified in Section 3.05, Contractor shall take such steps as are necessary to bring the actual completion dates of its work activities into conformance with the Progress Schedule, and if directed by Owner, Contractor shall submit a corrective action plan or revise the Progress Schedule to reconcile with the actual progress of the Work.
- E. Contractor to notify Owner of delays: Contractor shall promptly notify Owner in writing of any actual or anticipated event which is delaying or could delay achievement of any milestone or performance of any critical path activity of the Work. Contractor shall indicate the expected duration of the delay, the anticipated effect of the delay on the Progress Schedule, and the action being or to be taken to correct the problem. Provision of such notice does not relieve Contractor of its obligation to complete the Work within the Contract Time.

3.03 OWNER'S RIGHT TO SUSPEND THE WORK FOR CONVENIENCE

- A. Owner may suspend Work: Owner may, at its sole discretion, order Contractor, in writing, to suspend all or any part of the Work for up to 90 Days, or for such longer period as mutually agreed.
- B. Compliance with suspension; Owner's options: Upon receipt of a written notice suspending the Work, Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of cost of performance directly attributable to such suspension. Within a period up to 90 Days after the notice is delivered to Contractor, or within any extension of that period to which the parties shall have agreed, Owner shall either:
1. Cancel the written notice suspending the Work; or
 2. Terminate the Work covered by the notice as provided in the termination provisions of Part 9.
- C. Resumption of Work: If a written notice suspending the Work is cancelled or the period of the notice or any extension thereof expires, Contractor shall resume Work.
- D. Equitable Adjustment for suspensions: Contractor shall be entitled to an equitable adjustment in the Contract Time, or Contract Sum, or both, for increases in the time or cost of performance directly attributable to such suspension, provided Contractor complies with all requirements set forth in Part 7.

3.04 OWNER'S RIGHT TO STOP THE WORK FOR CAUSE

- A. Owner may stop Work for Contractor's failure to perform: If Contractor fails or refuses to perform its obligations in accordance with the Contract Documents, Owner may order Contractor, in writing, to stop the Work, or any portion thereof, until satisfactory corrective action has been taken.
- B. No Equitable Adjustment for Contractor's failure to perform: Contractor shall not be entitled to an equitable adjustment in the Contract Time or Contract Sum for any increased cost or time of performance attributable to Contractor's failure or refusal to perform or from any reasonable remedial action taken by Owner based upon such failure.

3.05 DELAY

- A. Force Majeure actions not a default; Force Majeure defined: Any delay in or failure of performance by Owner or Contractor, other than the payment of money, shall not constitute a default hereunder if and to the extent the cause for such delay or failure of performance was unforeseeable and beyond the control of the party ("Force Majeure"). Acts of Force Majeure include, but are not limited to:
1. Acts of God or the public enemy;
 2. Acts or omissions of any government entity;
 3. Fire or other casualty for which Contractor is not responsible;
 4. Quarantine or epidemic;
 5. Strike or defensive lockout;
 6. Unusually severe weather conditions which could not have been reasonably anticipated; and
 7. Unusual delay in receipt of supplies or products which were ordered and expedited and for which no substitute reasonably acceptable to Owner was available.
- B. Contract Time adjustment for Force Majeure: Contractor shall be entitled to an equitable adjustment in the Contract Time for changes in the time of performance directly attributable to an act of Force Majeure, provided it makes a request for equitable adjustment according to Section 7.03. Contractor shall not be entitled to an adjustment in the Contract Sum resulting from an act of Force Majeure.
- C. Contract Time or Contract Sum adjustment if Owner at fault: Contractor shall be entitled to an equitable adjustment in Contract Time, and may be entitled to an equitable adjustment in Contract Sum, if the cost or time of Contractor's performance is changed due to the fault or negligence of Owner, provided the Contractor makes a request according to Sections 7.02 and 7.03.
- D. No Contract Time or Contract Sum adjustment if Contractor at fault: Contractor shall not be entitled to an adjustment in Contract Time or in the Contract Sum for any delay or failure of performance to the extent such delay or failure was caused by Contractor or anyone for whose acts Contractor is responsible.
- E. Contract Time adjustment only for concurrent fault: To the extent any delay or failure of performance was concurrently caused by the Owner and Contractor, Contractor shall be entitled to an adjustment in the Contract Time for that portion of the delay or failure of performance that was concurrently caused, provided it makes a request for equitable adjustment according to Section 7.03, but shall not be entitled to an adjustment in Contract Sum.
- F. Contractor to mitigate delay impacts: Contractor shall make all reasonable efforts to prevent and mitigate the effects of any delay, whether occasioned by an act of Force Majeure or otherwise.

3.06 NOTICE TO OWNER OF LABOR DISPUTES

- A. Contractor to notify Owner of labor disputes: If Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay timely performance in accordance with the Contract Documents, Contractor shall immediately give notice, including all relevant information, to Owner.

- B. Pass through notification provisions to Subcontractors: Contractor agrees to insert a provision in its Subcontracts and to require insertion in all sub-subcontracts, that in the event timely performance of any such contract is delayed or threatened by delay by any actual or potential labor dispute, the Subcontractor or Sub-subcontractor shall immediately notify the next higher tier Subcontractor or Contractor, as the case may be, of all relevant information concerning the dispute.

3.07 DAMAGES FOR FAILURE TO ACHIEVE TIMELY COMPLETION

A. Liquidated Damages

1. Reason for Liquidated Damages: Timely performance and completion of the Work is essential to Owner and time limits stated in the Contract Documents are of the essence. Owner will incur serious and substantial damages if Substantial Completion of the Work does not occur within the Contract Time. However, it would be difficult if not impossible to determine the exact amount of such damages. Consequently, provisions for liquidated damages are included in the Contract Documents.
2. Calculation of Liquidated Damages amount: The liquidated damage amounts set forth in the Contract Documents will be assessed not as a penalty, but as liquidated damages for breach of the Contract Documents. This amount is fixed and agreed upon by and between the Contractor and Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain. This amount shall be construed as the actual amount of damages sustained by the Owner, and may be retained by the Owner and deducted from periodic payments to the Contractor.
3. Contractor responsible even if Liquidated Damages assessed: Assessment of liquidated damages shall not release Contractor from any further obligations or liabilities pursuant to the Contract Documents.

B. Actual Damages

Calculation of Actual Damages: Actual damages will be assessed for failure to achieve Final Completion within the time provided. Actual damages will be calculated on the basis of direct architectural, administrative, and other related costs attributable to the Project from the date when Final Completion should have been achieved, based on the date Substantial Completion is actually achieved, to the date Final Completion is actually achieved. Owner may offset these costs against any payment due Contractor.

PART 4 – SPECIFICATIONS, DRAWINGS, AND OTHER DOCUMENTS

4.01 DISCREPANCIES AND CONTRACT DOCUMENT REVIEW

- A. Specifications and Drawings are basis of the Work: The intent of the Specifications and Drawings is to describe a complete Project to be constructed in accordance with the Contract Documents. Contractor shall furnish all labor, materials, equipment, tools, transportation, permits, and supplies, and perform the Work required in accordance with the Drawings, Specifications, and other provisions of the Contract Documents.
- B. Parts of the Contract Documents are complementary: The Contract Documents are complementary. What is required by one part of the Contract Documents shall be binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both.

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- C. Contractor to report discrepancies in Contract Documents: Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by Owner. If, during the performance of the Work, Contractor finds a conflict, error, inconsistency, or omission in the Contract Documents, it shall promptly and before proceeding with the Work affected thereby, report such conflict, error, inconsistency, or omission to A/E in writing.
- D. Contractor knowledge of discrepancy in documents – responsibility: Contractor shall do no Work without applicable Drawings, Specifications, or written modifications, or Shop Drawings where required, unless instructed to do so in writing by Owner. If Contractor performs any construction activity, and it knows or reasonably should have known that any of the Contract Documents contain a conflict, error, inconsistency, or omission, Contractor shall be responsible for the performance and shall bear the cost for its correction.
- E. Contractor to perform Work implied by Contract Documents: Contractor shall provide any work or materials the provision of which is clearly implied and is within the scope of the Contract Documents even if the Contract Documents do not mention them specifically.
- F. Interpretation questions referred to A/E: Questions regarding interpretation of the requirements of the Contract Documents shall be referred to the A/E.

4.02 PROJECT RECORD

- A. Contractor to maintain Project Record Drawings and Specifications: Contractor shall legibly mark in ink on a separate set of the Drawings and Specifications all actual construction, including depths of foundations, horizontal and vertical locations of internal and underground utilities and appurtenances referenced to permanent visible and accessible surface improvements, field changes of dimensions and details, actual suppliers, manufacturers and trade names, models of installed equipment, and Change Order Proposals (COP). This separate set of Drawings and Specifications shall be the "Project Record."
- B. Update Project Record weekly and keep on site: The Project Record shall be maintained on the project site throughout the construction and shall be clearly labeled "PROJECT RECORD." The Project Record shall be updated at least weekly noting all changes and shall be available to Owner at all times.
- C. Final Project Record to A/E before Final Acceptance: Contractor shall submit the completed and finalized Project Record to A/E prior to Final Acceptance.

4.03 SHOP DRAWINGS

- A. Definition of Shop Drawings: "Shop Drawings" means documents and other information required to be submitted to A/E by Contractor pursuant to the Contract Documents, showing in detail: the proposed fabrication and assembly of structural elements; and the installation (i.e. form, fit, and attachment details) of materials and equipment. Shop Drawings include, but are not limited to, drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, samples, and similar materials furnished by Contractor to explain in detail specific portions of the Work required by the Contract Documents. For materials and equipment to be incorporated into the Work, Contractor submittal shall include the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the item. When directed, Contractor shall submit all samples at its own expense. Owner may duplicate, use, and disclose Shop Drawings provided in accordance with the Contract Documents.
- B. Approval of Shop Drawings by Contractor and A/E: Contractor shall coordinate all Shop Drawings, and review them for accuracy, completeness, and compliance with the Contract Documents and shall indicate its approval thereon as evidence of such coordination and review.

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Where required by law, Shop Drawings shall be stamped by an appropriate professional licensed by the state of Washington. Shop Drawings submitted to A/E without evidence of Contractor's approval shall be returned for resubmission. Contractor shall review, approve, and submit Shop Drawings with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of Owner or separate contractors. Contractor's submittal schedule shall allow a reasonable time for A/E review. A/E will review, approve, or take other appropriate action on the Shop Drawings. Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings until the respective submittal has been reviewed and the A/E has approved or taken other appropriate action. Owner and A/E shall respond to Shop Drawing submittals with reasonable promptness. Any Work by Contractor shall be in accordance with reviewed Shop Drawings. Submittals made by Contractor which are not required by the Contract Documents may be returned without action.

- C. Contractor not relieved of responsibility when Shop Drawings approved: Approval, or other appropriate action with regard to Shop Drawings, by Owner or A/E shall not relieve Contractor of responsibility for any errors or omissions in such Shop Drawings, nor from responsibility for compliance with the requirements of the Contract Documents. Unless specified in the Contract Documents, review by Owner or A/E shall not constitute an approval of the safety precautions employed by Contractor during construction, or constitute an approval of Contractor's means or methods of construction. If Contractor fails to obtain approval before installation and the item or work is subsequently rejected, Contractor shall be responsible for all costs of correction.
- D. Variations between Shop Drawings and Contract Documents: If Shop Drawings show variations from the requirements of the Contract Documents, Contractor shall describe such variations in writing, separate from the Shop Drawings, at the time it submits the Shop Drawings containing such variations. If A/E approves any such variation, an appropriate Change Order will be issued. If the variation is minor and does not involve an adjustment in the Contract Sum or Contract Time, a Change Order need not be issued; however, the modification shall be recorded upon the Project Record.
- E. Contractor to submit 5 copies of Shop Drawings: Unless otherwise provided in Division 1, Contractor shall submit to A/E for approval 5 copies of all Shop Drawings. Unless otherwise indicated, 3 sets of all Shop Drawings shall be retained by A/E and 2 sets shall be returned to Contractor.

4.04 ORGANIZATION OF SPECIFICATIONS

Specification organization by trade: Specifications are prepared in sections which conform generally with trade practices. These sections are for Owner and Contractor convenience and shall not control Contractor in dividing the Work among the Subcontractors or in establishing the extent of the Work to be performed by any trade.

4.05 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS

- A. A/E, not Contractor, owns Copyright of Drawings and Specifications: The Drawings, Specifications, and other documents prepared by A/E are instruments of A/E's service through which the Work to be executed by Contractor is described. Neither Contractor nor any Subcontractor shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by A/E, and A/E shall be deemed the author of them and will, along with any rights of Owner, retain all common law, statutory, and other reserved rights, in addition to the copyright. All copies of these documents, except Contractor's set, shall be returned or suitably accounted for to A/E, on request, upon completion of the Work.
- B. Drawings and Specifications to be used only for this Project: The Drawings, Specifications, and other documents prepared by the A/E, and copies thereof furnished to Contractor, are for use solely with respect to this Project. They are not to be used by Contractor or any Subcontractor

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on other projects or for additions to this Project outside the scope of the Work without the specific written consent of Owner and A/E. Contractor and Subcontractors are granted a limited license to use and reproduce applicable portions of the Drawings, Specifications, and other documents prepared by A/E appropriate to and for use in the execution of their Work.

- C. Shop Drawing license granted to Owner: Contractor and all Subcontractors grant a non-exclusive license to Owner, without additional cost or royalty, to use for its own purposes (including reproduction) all Shop Drawings, together with the information and diagrams contained therein, prepared by Contractor or any Subcontractor. In providing Shop Drawings, Contractor and all Subcontractors warrant that they have authority to grant to Owner a license to use the Shop Drawings, and that such license is not in violation of any copyright or other intellectual property right. Contractor agrees to defend and indemnify Owner pursuant to the indemnity provisions in Section 5.03 and 5.22 from any violations of copyright or other intellectual property rights arising out of Owner's use of the Shop Drawings hereunder, or to secure for Owner, at Contractor's own cost, licenses in conformity with this section.
- D. Shop Drawings to be used only for this Project: The Shop Drawings and other submittals prepared by Contractor, Subcontractors of any tier, or its or their equipment or material suppliers, and copies thereof furnished to Contractor, are for use solely with respect to this Project. They are not to be used by Contractor or any Subcontractor of any tier, or material or equipment supplier, on other projects or for additions to this Project outside the scope of the Work without the specific written consent of Owner. The Contractor, Subcontractors of any tier, and material or equipment suppliers are granted a limited license to use and reproduce applicable portions of the Shop Drawings and other submittals appropriate to and for use in the execution of their Work under the Contract Documents.

PART 5 – PERFORMANCE

5.01 CONTRACTOR CONTROL AND SUPERVISION

- A. Contractor responsible for Means and Methods of construction: Contractor shall supervise and direct the Work, using its best skill and attention, and shall perform the Work in a skillful manner. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work, unless the Contract Documents give other specific instructions concerning these matters. Contractor shall disclose its means and methods of construction when requested by Owner.
- B. Competent Superintendent required: Performance of the Work shall be directly supervised by a competent superintendent who has authority to act for Contractor. The superintendent must be satisfactory to the Owner and shall not be changed without the prior written consent of Owner. Owner may require Contractor to remove the superintendent from the Work or Project site, at no cost to the Owner for delay or any other claim, if Owner reasonably deems the superintendent incompetent, negligent, or otherwise objectionable, provided Owner has first notified Contractor in writing and allowed a reasonable period for transition. Noncompliance with the Owner's request to remove and replace the superintendent for a material reason shall also be grounds for terminating the Contract for cause.
- C. Contractor responsible for acts and omissions of self and agents: Contractor shall be responsible to Owner for acts and omissions of Contractor, Subcontractors, and their employees and agents.
- D. Contractor to employ competent and disciplined workforce: Contractor shall enforce strict discipline and good order among all of the Contractor's employees and other persons performing the Work. Contractor shall not permit employment of persons not skilled in tasks assigned to them. Contractor's employees shall at all times conduct business in a manner which assures fair, equal, and nondiscriminatory treatment of all persons. Owner may, by written notice, require

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Contractor to remove from the Work or Project site, at no cost to the Owner for delay or any other claim, any employee Owner reasonably deems incompetent, negligent, or otherwise objectionable. Noncompliance with the Owner's request to remove and replace personnel at any level for a material reason shall also be grounds for terminating the Contract for cause.

- E. Contractor to keep project documents on site: Contractor shall keep on the Project site a copy of the Drawings, Specifications, addenda, reviewed Shop Drawings, and permits and permit drawings.
- F. Contractor to comply with ethical standards: Contractor shall ensure that its owner(s) and employees, and those of its Subcontractors, comply with the Ethics in Public Service Act RCW 42.52, which, among other things, prohibits state employees from having an economic interest in any public works contract that was made by, or supervised by, that employee. Contractor shall remove, at its sole cost and expense, any of its, or its Subcontractors' employees, if they are in violation of this act.

5.02 PERMITS, FEES, AND NOTICES

- A. Contractor to obtain and pay for permits: Unless otherwise provided in the Contract Documents, Contractor shall pay for and obtain all permits, licenses, and inspections necessary for proper execution and completion of the Work. Prior to Final Acceptance, the approved, signed permits shall be delivered to Owner.
- B. Allowances for permit fees: The actual cost of the general building permit (only) and the public utility hook-up fees will be a direct reimbursement to the Contractor or paid directly to the permitting agency by the Owner. ***Fees for these permits should not be included by the Contractor in his bid amount.***
- C. Contractor to comply with all applicable laws: Contractor shall comply with and give notices required by all federal, state, and local laws, ordinances, rules, regulations, and lawful orders of public authorities applicable to performance of the Work.
- D. Contractor to submit copies: The General Contractor shall submit copies of each valid permit required on the project to the Owner's representative. Nothing in this part shall be construed as imposing a duty upon the Owner or A/E to secure permits.

5.03 PATENTS AND ROYALTIES

Payment, indemnification, and notice: Contractor is responsible for, and shall pay, all royalties and license fees. Contractor shall defend, indemnify, and hold Owner harmless from any costs, expenses, and liabilities arising out of the infringement by Contractor of any patent, copyright, or other intellectual property right used in the Work; however, provided that Contractor gives prompt notice, Contractor shall not be responsible for such defense or indemnity when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents. If Contractor has reason to believe that use of the required design, process, or product constitutes an infringement of a patent or copyright, it shall promptly notify Owner of such potential infringement.

5.04 PREVAILING WAGES

- A. Contractor to pay Prevailing Wages or applicable Federal Wages: Contractor shall pay the prevailing rate of wages to all workers, laborers, or mechanics employed in the performance of any part of the Work in accordance with RCW 39.12 and the rules and regulations of the Department of Labor and Industries (L&I). The schedule of prevailing wage rates for the locality or localities of the Work, is determined by the Industrial Statistician of the Department of Labor and Industries. It is the Contractor's responsibility to verify the applicable prevailing wage rate. If applicable, the Contractor shall comply with all Federal Funding requirements of the Davis

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Bacon Act that will be addressed in a separate "DIVISION 00 SPECIAL CONDITIONS" specification section that will be based on the specific requirements of the funding source.

- B. Statement of Intent to Pay Prevailing Wages: Before payment is made by the Owner to the Contractor for any work performed by the Contractor and subcontractors whose work is included in the application for payment, the Contractor shall submit, or shall have previously submitted to the Owner for the Project, a Statement of Intent to Pay Prevailing Wages, approved by the L&I, certifying the rate of hourly wage paid and to be paid each classification of laborers, workers, or mechanics employed upon the Work by Contractor and Subcontractors. Such rates of hourly wage shall not be less than the prevailing wage rate.
- C. Affidavit of Wages Paid: Prior to release of retainage, the Contractor shall submit to the Owner an Affidavit of Wages Paid, approved by the L&I, for the Contractor and every subcontractor, of any tier, that performed work on the Project.
- D. Disputes: Disputes regarding prevailing wage rates shall be referred for arbitration to the Director of the L&I. The arbitration decision shall be final and conclusive and binding on all parties involved in the dispute as provided for by RCW 39.12.060.
- E. Statement with pay application; Post Statements of Intent at job site: Each Application for Payment submitted by Contractor shall state that prevailing wages have been paid in accordance with the prefiled statement(s) of intent, as approved. Copies of the approved intent statement(s) shall be posted on the job site with the address and telephone number of the Industrial Statistician of the L&I where a complaint or inquiry concerning prevailing wages may be made.
- F. Contractor to pay for Statements of Intent and Affidavits: In compliance with chapter 296-127 WAC, Contractor shall pay to the L&I the currently established fee(s) for each statement of intent and/or affidavit of wages paid submitted to the L&I for certification.
- G. Certified Payrolls: Consistent with RCW 31.12.120, contractors, subcontractors, or employers shall file a copy of its certified payroll records using the L&I' online system at least once per month. If the L&I' online system is not used, a contractor, subcontractor, or employer shall file a copy of its certified payroll records directly with the L&I in a format approved by the L&I at least once per month. A contractor, subcontractor, or employer's noncompliance with this section constitutes a violation of RCW 39.12.050.
- H. Compliance with Federal Funding requirements: If applicable, the Contractor shall comply with all Federal Funding requirements of the Davis Bacon Act that will be addressed in a separate "DIVISION 00 SPECIAL CONDITIONS" specification section that will be based on the specific requirements of the funding source.

5.05 HOURS OF LABOR

- A. Overtime: Contractor shall comply with all applicable provisions of RCW 49.28 and they are incorporated herein by reference. Pursuant to that statute, no laborer, worker, or mechanic employed by Contractor, any Subcontractor, or any other person performing or contracting to do the whole or any part of the Work, shall be permitted or required to work more than eight hours in any one calendar day, provided, that in cases of extraordinary emergency, such as danger to life or property, the hours of work may be extended, but in such cases the rate of pay for time employed in excess of eight hours of each calendar day shall be not less than one and one-half times the rate allowed for this same amount of time during eight hours of service.
- B. 4-10 Agreements: Notwithstanding the preceding paragraph, RCW 49.28 permits a contractor or subcontractor in any public works contract subject to those provisions, to enter into an agreement with its employees in which the employees work up to ten hours in a calendar day. No such agreement may provide that the employees work ten-hour days for more than four

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calendar days a week. Any such agreement is subject to approval by the employees. The overtime provisions of RCW 49.28 shall not apply to the hours, up to forty hours per week, worked pursuant to any such agreement.

5.06 NONDISCRIMINATION

- A. Discrimination prohibited by applicable laws: The Contractor and all Subcontractors shall comply with all applicable federal and state non-discrimination laws, regulations, and policies. No person shall, on the grounds of age, race, creed, color, sex, sexual orientation, religion, national origin, marital status, honorably discharged veteran or military status, or disability (physical, mental, or sensory) be denied the benefits of, or otherwise be subjected to discrimination under any project, program, or activity, funded, in whole or in part, under this Agreement
- B. During performance of the Work:
1. Protected Classes: Contractor shall not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, marital status, or the presence of any physical, sensory, or mental disability, Vietnam era veteran status, or disabled veteran status, nor commit any other unfair practices as defined in RCW 49.60.
 2. Advertisements to state nondiscrimination: Contractor shall, in all solicitations or advertisements for employees placed by or for it, state that all qualified applicants will be considered for employment, without regard to race, creed, color, national origin, sex, age, marital status, or the presence of any physical, sensory, or mental disability.
 3. Contractor to notify unions and others of nondiscrimination: Contractor shall send to each labor union, employment agency, or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the labor union, employment agency, or workers' representative of Contractor's obligations according to the Contract Documents and RCW 49.60.
 4. Owner and State access to Contractor records: Contractor shall permit access to its books, records, and accounts, and to its premises by Owner, and by the Washington State Human Rights Commission, for the purpose of investigation to ascertain compliance with this section of the Contract Documents.
 5. Pass through provisions to Subcontractors: Contractor shall include the provisions of this section in every Subcontract.

5.07 SAFETY PRECAUTIONS

- A. In performing this contract, the Contractor shall provide for protecting the lives and health of employees and other persons; preventing damage to property, materials, supplies, and equipment; and avoid work interruptions. For these purposes, the Contractor shall:
1. Follow Washington Industrial Safety and Health Act (WISHA) regional directives and provide a site-specific safety program that will require an accident prevention and hazard analysis plan for the contractor and each subcontractor on the work site. The Contractor shall submit a site-specific safety plan to the Owner's representative prior to the initial scheduled construction meeting.
 2. Provide adequate safety devices and measures including, but not limited to, the appropriate safety literature, notice, training, permits, placement and use of barricades, signs, signal lights, ladders, scaffolding, staging, runways, hoist, construction elevators, shoring, temporary lighting, grounded outlets, wiring, hazardous materials, vehicles, construction

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processes, and equipment required by all applicable state, federal, and local laws and regulations.

3. Comply with the State Environmental Policy Act (SEPA), Clean Air Act, Shoreline Management Act, and other applicable federal, state, and local statutes and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources.
 4. Post all permits, notices, and/or approvals in a conspicuous location at the construction site.
 5. Provide any additional measures that the Owner determines to be reasonable and necessary for ensuring a safe environment in areas open to the public. Nothing in this part shall be construed as imposing a duty upon the Owner or A/E to prescribe safety conditions relating to employees, public, or agents of the Contractors.
- B. Contractor safety responsibilities: In carrying out its responsibilities according to the Contract Documents, Contractor shall protect the lives and health of employees performing the Work and other persons who may be affected by the Work; prevent damage to materials, supplies, and equipment whether on site or stored off-site; and prevent damage to other property at the site or adjacent thereto. Contractor shall comply with all applicable laws, ordinances, rules, regulations, and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss; shall erect and maintain all necessary safeguards for such safety and protection; and shall notify owners of adjacent property and utilities when prosecution of the Work may affect them.
- C. Contractor to maintain safety records: Contractor shall maintain an accurate record of exposure data on all incidents relating to the Work resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. Contractor shall immediately report any such incident to Owner. Owner shall, at all times, have a right of access to all records of exposure.
- D. Contractor to provide HazMat training: Contractor shall provide all persons working on the Project site with information and training on hazardous chemicals in their work at the time of their initial assignment, and whenever a new hazard is introduced into their work area.
1. Information. At a minimum, Contractor shall inform persons working on the Project site of:
 - a. WAC: The requirements of chapter 296-62 WAC, General Occupational Health Standards;
 - b. Presence of hazardous chemicals: Any operations in their work area where hazardous chemicals are present; and
 - c. Hazard communications program: The location and availability of written hazard communication programs, including the required list(s) of hazardous chemicals and material safety data sheets required by chapter 296-62 WAC.
 2. Training. At a minimum, Contractor shall provide training for persons working on the Project site which includes:
 - a. Detecting hazardous chemicals: Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);

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- b. Hazards of chemicals: The physical and health hazards of the chemicals in the work area;
 - c. Protection from hazards: The measures such persons can take to protect themselves from these hazards, including specific procedures Contractor, or its Subcontractors, or others have implemented to protect those on the Project site from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and
 - d. Hazard communications program: The details of the hazard communications program developed by Contractor, or its Subcontractors, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.
- E. Hazardous, toxic or harmful substances: Contractor's responsibility for hazardous, toxic, or harmful substances shall include the following duties:
- 1. Illegal use of dangerous substances: Contractor shall not keep, use, dispose, transport, generate, or sell on or about the Project site, any substances now or hereafter designated as, or which are subject to regulation as, hazardous, toxic, dangerous, or harmful by any federal, state or local law, regulation, statute or ordinance (hereinafter collectively referred to as "hazardous substances"), in violation of any such law, regulation, statute, or ordinance, but in no case shall any such hazardous substance be stored more than 90 Days on the Project site.
 - 2. Contractor notifications of spills, failures, inspections, and fines: Contractor shall promptly notify Owner of all spills or releases of any hazardous substances which are otherwise required to be reported to any regulatory agency and pay the cost of cleanup. Contractor shall promptly notify Owner of all failures to comply with any federal, state, or local law, regulation, or ordinance; all inspections of the Project site by any regulatory entity concerning the same; all regulatory orders or fines; and all responses or interim cleanup actions taken by or proposed to be taken by any government entity or private party on the Project site.
- F. Public safety and traffic: All Work shall be performed with due regard for the safety of the public. Contractor shall perform the Work so as to cause a minimum of interruption of vehicular traffic or inconvenience to pedestrians. All arrangements to care for such traffic shall be Contractor's responsibilities. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.
- G. Contractor to act in an emergency: In an emergency affecting the safety of life or the Work or of adjoining property, Contractor is permitted to act, at its discretion, to prevent such threatened loss or injury, and Contractor shall so act if so authorized or instructed.
- H. No duty of safety by Owner or A/E: Nothing provided in this section shall be construed as imposing any duty upon Owner or A/E with regard to, or as constituting any express or implied assumption of control or responsibility over, Project site safety, or over any other safety conditions relating to employees or agents of Contractor or any of its Subcontractors, or the public.

5.08 OPERATIONS, MATERIAL HANDLING, AND STORAGE AREAS

- A. Limited storage areas: Contractor shall confine all operations, including storage of materials, to Owner-approved areas.
- B. Temporary buildings and utilities at Contractor expense: Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be provided by Contractor only with the consent of Owner

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and without expense to Owner. The temporary buildings and utilities shall be removed by Contractor at its expense upon completion of the Work.

- C. Roads and vehicle loads: Contractor shall use only established roadways or temporary roadways authorized by Owner. When materials are transported in prosecuting the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by federal, state, or local law or regulation.
- D. Ownership and reporting by Contractor of demolished materials: Ownership and control of all materials or facility components to be demolished or removed from the Project site by Contractor shall immediately vest in Contractor upon severance of the component from the facility or severance of the material from the Project site. Contractor shall be responsible for compliance with all laws governing the storage and ultimate disposal. Contractor shall provide Owner with a copy of all manifests and receipts evidencing proper disposal when required by Owner or applicable law.
- E. Contractor responsible for care of materials and equipment on-site: Contractor shall be responsible for the proper care and protection of its materials and equipment delivered to the Project site. Materials and equipment may be stored on the premises subject to approval of Owner. When Contractor uses any portion of the Project site as a shop, Contractor shall be responsible for any repairs, patching, or cleaning arising from such use.
- F. Contractor responsible for loss of materials and equipment: Contractor shall protect and be responsible for any damage or loss to the Work, or to the materials or equipment until the date of Substantial Completion, and shall repair or replace without cost to Owner any damage or loss that may occur, except damages or loss caused by the acts or omissions of Owner. Contractor shall also protect and be responsible for any damage or loss to the Work, or to the materials or equipment, after the date of Substantial Completion, and shall repair or replace without cost to Owner any such damage or loss that might occur, to the extent such damages or loss are caused by the acts or omissions of Contractor, or any Subcontractor.

5.09 PRIOR NOTICE OF EXCAVATION

- A. Excavation defined; Use of locator services: "Excavation" means an operation in which earth, rock, or other material on or below the ground is moved or otherwise displaced by any means, except the tilling of soil less than 12 inches in depth for agricultural purposes, or road ditch maintenance that does not change the original road grade or ditch flow line. Before commencing any excavation, Contractor shall provide notice of the scheduled commencement of excavation to all owners of underground facilities or utilities, through locator services.

5.10 UNFORESEEN PHYSICAL CONDITIONS

- A. Notice requirement for concealed or unknown conditions: If Contractor encounters conditions at the site which are subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then Contractor shall give written notice to Owner promptly and in no event later than 7 Days after the first observance of the conditions. Conditions shall not be disturbed prior to such notice.
- B. Adjustment in Contract Time and Contract Sum: If such conditions differ materially and cause a change in Contractor's cost of, or time required for, performance of any part of the Work, the Contractor may be entitled to an equitable adjustment in the Contract Time or Contract Sum, or both, provided it makes a request therefore as provided in Part 7.

5.11 PROTECTION OF EXISTING STRUCTURES, EQUIPMENT, VEGETATION, UTILITIES AND IMPROVEMENTS

- A. Contractor to protect and repair property: Contractor shall protect from damage all existing structures, equipment, improvements, utilities, and vegetation: at or near the Project site; and on adjacent property of a third party, the locations of which are made known to or should be known by Contractor. Contractor shall repair any damage, including that to the property of a third party, resulting from failure to comply with the requirements of the Contract Documents or failure to exercise reasonable care in performing the Work. If Contractor fails or refuses to repair the damage promptly, Owner may have the necessary work performed and charge the cost to Contractor.
- B. Tree and vegetation protection: Contractor shall only remove trees when specifically authorized to do so, and shall protect vegetation that will remain in place.

5.12 LAYOUT OF WORK

- A. Advanced planning of the Work: Contractor shall plan and lay out the Work in advance of operations so as to coordinate all work without delay or revision.
- B. Layout responsibilities: Contractor shall lay out the Work from Owner-established baselines and bench marks indicated on the Drawings, and shall be responsible for all field measurements in connection with the layout. Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the Work. Contractor shall be responsible for executing the Work to the lines and grades that may be established. Contractor shall be responsible for maintaining or restoring all stakes and other marks established.

5.13 MATERIAL AND EQUIPMENT

- A. Contractor to provide new and equivalent equipment and materials: All equipment, material, and articles incorporated into the Work shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in the Contract Documents. References in the Specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard quality and shall not be construed as limiting competition. Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of A/E, is equal to that named in the specifications, unless otherwise specifically provided in the Contract Documents.
- B. Use of asbestos-containing building materials: The use of asbestos-containing building materials in new construction or renovation work is strictly prohibited. For the determination of asbestos-containing building materials, the following shall apply:
 - 1. Until January 1, 2025, asbestos deliberately added in any concentration that contains more than one percent asbestos by weight or area as determined using the United States environmental protection agency method for the determination of asbestos in bulk building materials, EPA/600/R-93/116, July 1993.
 - 2. Following January 1, 2025, asbestos building material deliberately added in any concentration that contains more than 1/10th of one percent asbestos by weight or area for the determination of asbestos in bulk building materials, EPA/600/R-93/116, July 1993.
- C. Contractor responsible for fitting parts together: Contractor shall do all cutting, fitting, or patching that may be required to make its several parts fit together properly, or receive or be received by work of others set forth in, or reasonably implied by, the Contract Documents. Contractor shall

not endanger any work by cutting, excavating, or otherwise altering the Work and shall not cut or alter the work of any other contractor unless approved in advance by Owner.

- D. Owner may reject defective Work: Should any of the Work be found defective, or in any way not in accordance with the Contract Documents, this work, in whatever stage of completion, may be rejected by Owner.

5.14 AVAILABILITY AND USE OF UTILITY SERVICES

- A. Owner to provide and charge for utilities: Owner shall make all reasonable utilities available to Contractor from existing outlets and supplies, as specified in the Contract Documents. Unless otherwise provided in the Contract Documents, the utility service consumed shall be charged to or paid for by Contractor at prevailing rates charged to Owner or, where the utility is produced by Owner, at reasonable rates determined by Owner. Contractor will carefully conserve any utilities furnished.
- B. Contractor to install temporary connections and meters: Contractor shall, at its expense and in a skillful manner satisfactory to Owner, install and maintain all necessary temporary connections and distribution lines, together with appropriate protective devices, and all meters required to measure the amount of each utility used for the purpose of determining charges. Prior to the date of Final Acceptance, Contractor shall remove all temporary connections, distribution lines, meters, and associated equipment and materials.

5.15 TESTS AND INSPECTION

- A. Contractor to provide for all testing and inspection of Work: Contractor shall maintain an adequate testing and inspection program and perform such tests and inspections as are necessary or required to ensure that the Work conforms to the requirements of the Contract Documents. Contractor shall be responsible for inspection and quality surveillance of all its Work and all Work performed by any Subcontractor. Unless otherwise provided, Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. Contractor shall give Owner timely notice of when and where tests and inspections are to be made. Contractor shall maintain complete inspection records and make them available to Owner.
- B. Owner may conduct tests and inspections: Owner may, at any reasonable time, conduct such inspections and tests as it deems necessary to ensure that the Work is in accordance with the Contract Documents. Owner shall promptly notify Contractor if an inspection or test reveals that the Work is not in accordance with the Contract Documents. Unless the subject items are expressly accepted by Owner, such Owner inspection and tests are for the sole benefit of Owner and do not:
1. Constitute or imply acceptance;
 2. Relieve Contractor of responsibility for providing adequate quality control measures;
 3. Relieve Contractor of responsibility for risk of loss or damage to the Work, materials, or equipment;
 4. Relieve Contractor of its responsibility to comply with the requirements of the Contract Documents; or
 5. Impair Owner's right to reject defective or nonconforming items, or to avail itself of any other remedy to which it may be entitled.

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- C. Inspections or inspectors do not modify Contract Documents: Neither observations by an inspector retained by Owner, the presence or absence of such inspector on the site, nor inspections, tests, or approvals by others, shall relieve Contractor from any requirement of the Contract Documents, nor is any such inspector authorized to change any term or condition of the Contract Documents.
- D. Contractor responsibilities on inspections: Contractor shall promptly furnish, without additional charge, all facilities, labor, material and equipment reasonably needed for performing such safe and convenient inspections and tests as may be required by Owner. Owner may charge Contractor any additional cost of inspection or testing when Work is not ready at the time specified by Contractor for inspection or testing, or when prior rejection makes reinspection or retest necessary. Owner shall perform its inspections and tests in a manner that will cause no undue delay in the Work.

5.16 CORRECTION OF NONCONFORMING WORK

- A. Work covered by Contractor without inspection: If a portion of the Work is covered contrary to the requirements in the Contract Documents, it must, if required in writing by Owner, be uncovered for Owner's observation and be replaced at the Contractor's expense and without change in the Contract Time.
- B. Payment provisions for uncovering covered Work: If, at any time prior to Final Completion, Owner desires to examine the Work, or any portion of it, which has been covered, Owner may request to see such Work and it shall be uncovered by Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an adjustment in the Contract Sum for the costs of uncovering and replacement, and, if completion of the Work is thereby delayed, an adjustment in the Contract Time, provided it makes such a request as provided in Part 7. If such Work is not in accordance with the Contract Documents, the Contractor shall pay the costs of examination and reconstruction.
- C. Contractor to correct and pay for non-conforming Work: Contractor shall promptly correct Work found by Owner not to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed, or completed. Contractor shall bear all costs of correcting such nonconforming Work, including additional testing and inspections.
- D. Contractor's compliance with warranty provisions: If, within one year after the date of Substantial Completion of the Work or designated portion thereof, or within one year after the date for commencement of any system warranties established under Section 6.08, or within the terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, Contractor shall correct it promptly after receipt of written notice from Owner to do so. Owner shall give such notice promptly after discovery of the condition. This period of one year shall be extended, with respect to portions of Work first performed after Substantial Completion, by the period of time between Substantial Completion and the actual performance of the Work. Contractor's duty to correct with respect to Work repaired or replaced shall run for one year from the date of repair or replacement. Obligations under this paragraph shall survive Final Acceptance.
- E. Contractor to remove non-conforming Work: Contractor shall remove from the Project site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by Contractor nor accepted by Owner.
- F. Owner may charge Contractor for non-conforming Work: If Contractor fails to correct nonconforming Work within a reasonable time after written notice to do so, Owner may replace, correct, or remove the nonconforming Work and charge the cost thereof to the Contractor.

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- G. Contractor to pay for damaged Work during correction: Contractor shall bear the cost of correcting destroyed or damaged Work, whether completed or partially completed, caused by Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.
- H. No Period of limitation on other requirements: Nothing contained in this section shall be construed to establish a period of limitation with respect to other obligations which Contractor might have according to the Contract Documents. Establishment of the time period of one year as described in Section 5.16D relates only to the specific obligation of Contractor to correct the Work, and has no relationship to the time within which the Contractor's obligation to comply with the Contract Documents may be sought to be enforced, including the time within which such proceedings may be commenced.
- I. Owner may accept non-conforming Work and charge Contractor: If Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, Owner may do so instead of requiring its removal and correction, in which case the Contract Sum may be reduced as appropriate and equitable.

5.17 CLEAN UP

Contractor to keep site clean and leave it clean: Contractor shall at all times keep the Project site, including hauling routes, infrastructures, utilities, and storage areas, free from accumulations of waste materials. Before completing the Work, Contractor shall remove from the premises its rubbish, tools, scaffolding, equipment, and materials. Upon completing the Work, Contractor shall leave the Project site in a clean, neat, and orderly condition satisfactory to Owner. If Contractor fails to clean up as provided herein, and after reasonable notice from Owner, Owner may do so and the cost thereof shall be charged to Contractor.

5.18 ACCESS TO WORK

Owner and A/E access to Work site: Contractor shall provide Owner and A/E access to the Work in progress wherever located.

5.19 OTHER CONTRACTS

Owner may award other contracts; Contractor to cooperate: Owner may undertake or award other contracts for additional work at or near the Project site. Contractor shall reasonably cooperate with the other contractors and with Owner's employees and shall carefully adapt scheduling and perform the Work in accordance with these Contract Documents to reasonably accommodate the other work.

5.20 SUBCONTRACTORS AND SUPPLIERS

- A. Subcontractor Responsibility: The Contractor shall include the language of this paragraph 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. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this paragraph apply to all subcontractors regardless of tier. At the time of subcontract execution, the Contractor shall verify that each of its first tier subcontractors meets the following bidder responsibility criteria:
1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
 2. Have a current Washington Unified Business Identifier (UBI) number;

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3. If applicable, have:
 - a. Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RCW;
 - b. A Washington Employment Security Department number, as required in Title 50 RCW;
 - c. A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
 - d. An electrical contractor license, if required by Chapter 19.28 RCW;
 - e. An elevator contractor license, if required by Chapter 70.87 RCW.
 4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).
 5. On a project subject to the apprenticeship utilization requirements in RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the date of the Owner's first advertisement of the project.
 6. Within the three-year period immediately preceding the date of the bid solicitation, not have been determined by a final and binding citation and notice of assessment issued by the L&I or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW.
- B. Provide names of Subcontractors and use qualified firms: Contractor shall utilize Subcontractors and suppliers which are experienced and qualified, and meet the requirements of the Contract Documents, if any. Contractor shall not utilize any Subcontractor or supplier to whom the Owner has a reasonable objection, and shall obtain Owner's written consent before making any substitutions or additions. Substitutions of subcontractors listed on Forms A and B are only allowable according to RCW 39.30.060.
- C. Subcontracts in writing and pass through provision: All Subcontracts must be in writing. By appropriate written agreement, Contractor shall require each Subcontractor, so far as applicable to the Work to be performed by the Subcontractor, to be bound to Contractor by terms of the Contract Documents, and to assume toward Contractor all the obligations and responsibilities which Contractor assumes toward Owner in accordance with the Contract Documents. Each Subcontract shall preserve and protect the rights of Owner in accordance with the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. However, nothing in this paragraph shall be construed to alter the contractual relations between Contractor and its Subcontractors with respect to insurance or bonds.
- D. Coordination of Subcontractors; Contractor responsible for Work: Contractor shall schedule, supervise, and coordinate the operations of all Subcontractors. No Subcontracting of any of the Work shall relieve Contractor from its responsibility for the performance of the Work in accordance with the Contract Documents or any other obligations of the Contract Documents.
- E. Automatic assignment of subcontracts: Each subcontract agreement for a portion of the Work is hereby assigned by Contractor to Owner provided that:

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1. Effective only after termination and Owner approval: The assignment is effective only after termination by Owner for cause pursuant to Section 9.01 and only for those Subcontracts which Owner accepts by notifying the Subcontractor in writing; and
2. Owner assumes Contractor's responsibilities: After the assignment is effective, Owner will assume all future duties and obligations toward the Subcontractor which Contractor assumed in the Subcontract.
3. Impact of bond: The assignment is subject to the prior rights of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.

5.21 WARRANTY OF CONSTRUCTION

- A. Contractor warranty of Work: In addition to any special warranties provided elsewhere in the Contract Documents, Contractor warrants that all Work conforms to the requirements of the Contract Documents and is free of any defect in equipment, material, or design furnished, or workmanship performed by Contractor.
- B. Contractor responsibilities: With respect to all warranties, express or implied, for Work performed or materials furnished according to the Contract Documents, Contractor shall:
1. Obtain warranties: Obtain all warranties that would be given in normal commercial practice;
 2. Warranties for benefit of Owner: Require all warranties to be executed, in writing, for the benefit of Owner;
 3. Enforcement of warranties: Enforce all warranties for the benefit of Owner, if directed by Owner; and
 4. Contractor responsibility for subcontractor warranties: Be responsible to enforce any subcontractor's, manufacturer's, or supplier's warranties should they extend beyond the period specified in the Contract Documents.
- C. Warranties beyond Final Acceptance: The obligations under this section shall survive Final Acceptance.

5.22 INDEMNIFICATION

- A. Contractor to indemnify Owner: Contractor shall defend, indemnify, and hold Owner and A/E harmless from and against all claims, demands, losses, damages, or costs, including but not limited to damages arising out of bodily injury or death to persons and damage to property, caused by or resulting from:
1. Sole negligence of Contractor: The sole negligence of Contractor or any of its Subcontractors;
 2. Concurrent negligence: The concurrent negligence of Contractor, or any Subcontractor, but only to the extent of the negligence of Contractor or such Subcontractor; and
 3. Patent infringement: The use of any design, process, or equipment which constitutes an infringement of any United States patent presently issued, or violates any other proprietary interest, including copyright, trademark, and trade secret.
- B. Employee action and RCW Title 51: In any action against Owner and any other entity indemnified in accordance with this section, by any employee of Contractor, its Subcontractors, Sub-subcontractors, agents, or anyone directly or indirectly employed by any of them, the indemnification obligation of this section shall not be limited by a limit on the amount or type of damages, compensation, or benefits payable by or for Contractor or any Subcontractor under RCW Title 51, the Industrial Insurance Act, or any other employee benefit acts. In addition, Contractor waives immunity as to Owner and A/E only, in accordance with RCW Title 51.

PART 6 – PAYMENTS AND COMPLETION

6.01 CONTRACT SUM

Owner shall pay Contract Sum: Owner shall pay Contractor the Contract Sum plus state sales tax for performance of the Work, in accordance with the Contract Documents.

6.02 SCHEDULE OF VALUES

Contractor to submit Schedule of Values: Before submitting its first Application for Payment, Contractor shall submit to Owner for approval a breakdown allocating the total Contract Sum to each principal category of work, in such detail as requested by Owner ("Schedule of Values"). The approved Schedule of Values shall include appropriate amounts for demobilization, record drawings, O&M manuals, and any other requirements for Project closeout, and shall be used by Owner as the basis for progress payments. Payment for Work shall be made only for and in accordance with those items included in the Schedule of Values.

6.03 APPLICATION FOR PAYMENT

- A. Monthly Application for Payment with substantiation: At monthly intervals, unless determined otherwise by Owner, Contractor shall submit to Owner an itemized Application for Payment for Work completed in accordance with the Contract Documents and the approved Schedule of Values. Each application shall be supported by such substantiating data as Owner may require.
- B. Contractor certifies Subcontractors paid: By submitting an Application for Payment, Contractor is certifying that all Subcontractors have been paid, less earned retainage in accordance with RCW 60.28.011, as their interests appeared in the last preceding certificate of payment. By submitting an Application for Payment, Contractor is recertifying that the representations set forth in Section 1.03, are true and correct, to the best of Contractor's knowledge, as of the date of the Application for Payment.
- C. Reconciliation of Work with Progress Schedule: At the time it submits an Application for Payment, Contractor shall analyze and reconcile, to the satisfaction of Owner, the actual progress of the Work with the Progress Schedule.
- D. Payment for material delivered to site or stored off-site: If authorized by Owner, the Application for Payment may include request for payment for material delivered to the Project site and suitably stored, or for completed preparatory work. Payment may similarly be requested for material stored off the Project site, provided Contractor complies with or furnishes satisfactory evidence of the following:
 - 1. Suitable facility or location: The material will be placed in a facility or location that is structurally sound, dry, lighted and suitable for the materials to be stored;
 - 2. Facility or location within 10 miles of Project: The facility or location is located within a 10-mile radius of the Project. Other locations may be utilized, if approved in writing, by Owner;
 - 3. Facility or location exclusive to Project's materials: Only materials for the Project are stored within the facility or location (or a secure portion of a facility or location set aside for the Project);
 - 4. Insurance provided on materials in facility or location: Contractor furnishes Owner a certificate of insurance extending Contractor's insurance coverage for damage, fire, and theft to cover the full value of all materials stored, or in transit;

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5. Facility or location locked and secure: The facility or location (or secure portion thereof) is continuously under lock and key, and only Contractor's authorized personnel shall have access;
6. Owner right of access to facility or location: Owner shall at all times have the right of access in company of Contractor;
7. Contractor assumes total responsibility for stored materials: Contractor and its surety assume total responsibility for the stored materials; and
8. Contractor provides documentation and Notice when materials moved to site: Contractor furnishes to Owner certified lists of materials stored, bills of lading, invoices, and other information as may be required, and shall also furnish Notice to Owner when materials are moved from storage to the Project site.

6.04 PROGRESS PAYMENTS

- A. Owner to pay within 30 Days: Owner shall make progress payments, in such amounts as Owner determines are properly due, within 30 Days after receipt of a properly executed Application for Payment. Owner shall notify Contractor in accordance with chapter 39.76 RCW if the Application for Payment does not comply with the requirements of the Contract Documents.
- B. Withholding retainage; Options for retainage: Owner shall retain 5% of the amount of each progress payment until 45 Days after Final Acceptance and receipt of all documents required by law or the Contract Documents, including, at Owner's request, consent of surety to release of the retainage. In accordance with chapter 60.28 RCW, Contractor may request that monies reserved be retained in a fund by Owner, deposited by Owner in a bank or savings and loan, or placed in escrow with a bank or trust company to be converted into bonds and securities to be held in escrow with interest to be paid to Contractor. Owner may permit Contractor to provide an appropriate bond in lieu of the retained funds.
- C. Title passes to Owner upon payment: Title to all Work and materials covered by a progress payment shall pass to Owner at the time of such payment free and clear of all liens, claims, security interests, and encumbrances. Passage of title shall not, however, relieve Contractor from any of its duties and responsibilities for the Work or materials, or waive any rights of Owner to insist on full compliance by Contractor with the Contract Documents.
- D. Interest on unpaid balances: Payments due and unpaid in accordance with the Contract Documents shall bear interest as specified in chapter 39.76 RCW.

6.05 PAYMENTS WITHHELD

- A. Owner's right to withhold payment: Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any payment to such extent as may be necessary to protect Owner from loss or damage for reasons including but not limited to:
 1. Non-compliant Work: Work not in accordance with the Contract Documents;
 2. Remaining Work to cost more than unpaid balance: Reasonable evidence that the Work required by the Contract Documents cannot be completed for the unpaid balance of the Contract Sum;
 3. Owner correction or completion Work: Work by Owner to correct defective Work or complete the Work in accordance with Section 5.16;

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4. Contractor's failure to perform: Contractor's failure to perform in accordance with the Contract Documents; or
 5. Contractor's negligent acts or omissions: Cost or liability that may occur to Owner as the result of Contractor's fault or negligent acts or omissions.
- B. Owner to notify Contractor of withholding for unsatisfactory performance: In any case where part or all of a payment is going to be withheld for unsatisfactory performance, Owner shall notify Contractor in accordance with chapter 39.76 RCW.

6.06 RETAINAGE AND BOND CLAIM RIGHTS

Chapters 39.08 RCW and 60.28 RCW incorporated by reference: Chapters 39.08 RCW and 60.28 RCW, concerning the rights and responsibilities of Contractor and Owner with regard to the performance and payment bonds and retainage, are made a part of the Contract Documents by reference as though fully set forth herein.

6.07 SUBSTANTIAL COMPLETION

Substantial Completion defined: Substantial Completion is the stage in the progress of the Work (or portion thereof designated and approved by Owner) when the construction is sufficiently complete, in accordance with the Contract Documents, so Owner has full and unrestricted use and benefit of the facilities (or portion thereof designated and approved by Owner) for the use for which it is intended. All Work other than incidental corrective or punch list work shall be completed. Substantial Completion shall not have been achieved if all systems and parts are not functional, if utilities are not connected and operating normally, if all required occupancy permits have not been issued, or if the Work is not accessible by normal vehicular and pedestrian traffic routes. The date Substantial Completion is achieved shall be established in writing by Owner. Contractor may request an early date of Substantial Completion which must be approved by Change Order. Owner's occupancy of the Work or designated portion thereof does not necessarily indicate that Substantial Completion has been achieved.

6.08 PRIOR OCCUPANCY

- A. Prior Occupancy defined; Restrictions: Owner may, upon written notice thereof to Contractor, take possession of or use any completed or partially completed portion of the Work ("Prior Occupancy") at any time prior to Substantial Completion. Unless otherwise agreed in writing, Prior Occupancy shall not: be deemed an acceptance of any portion of the Work; accelerate the time for any payment to Contractor; prejudice any rights of Owner provided by any insurance, bond, guaranty, or the Contract Documents; relieve Contractor of the risk of loss or any of the obligations established by the Contract Documents; establish a date for termination or partial termination of the assessment of liquidated damages; or constitute a waiver of claims.
- B. Damage; Duty to repair and warranties: Notwithstanding anything in the preceding paragraph, Owner shall be responsible for loss of or damage to the Work resulting from Prior Occupancy. Contractor's one year duty to repair any system warranties shall begin on building systems activated and used by Owner as agreed in writing by Owner and Contractor.

6.09 FINAL COMPLETION, ACCEPTANCE, AND PAYMENT

- A. Final Completion defined: Final Completion shall be achieved when the Work is fully and finally complete in accordance with the Contract Documents. The date Final Completion is achieved shall be established by Owner in writing, but in no case shall constitute Final Acceptance which is a subsequent, separate, and distinct action.

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- B. Final Acceptance defined: Final Acceptance shall be achieved when the Contractor has completed the requirements of the Contract Documents. The date Final Acceptance is achieved shall be established by Owner in writing. Prior to Final Acceptance, Contractor shall, in addition to all other requirements in the Contract Documents, submit to Owner a written notice of any outstanding disputes or claims between Contractor and any of its Subcontractors, including the amounts and other details thereof. Neither Final Acceptance, nor final payment, shall release Contractor or its sureties from any obligations of these Contract Documents or the payment and performance bonds, or constitute a waiver of any claims by Owner arising from Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Final payment waives Claim rights: Acceptance of final payment by Contractor, or any Subcontractor, shall constitute a waiver and release to Owner of all claims by Contractor, or any such Subcontractor, for an increase in the Contract Sum or the Contract Time, and for every act or omission of Owner relating to or arising out of the Work, except for those Claims made in accordance with the procedures, including the time limits, set forth in Part 8.

PART 7 – CHANGES

7.01 CHANGE IN THE WORK

- A. Changes in Work, Contract Sum, and Contract Time by Change Order: Owner may, at any time and without notice to Contractor's surety, order additions, deletions, revisions, or other changes in the Work. These changes in the Work shall be incorporated into the Contract Documents through the execution of Change Orders. If any change in the Work ordered by Owner causes an increase or decrease in the Contract Sum or the Contract Time, an equitable adjustment shall be made as provided in Section 7.02 or 7.03, respectively, and such adjustment(s) shall be incorporated into a Change Order.
- B. Owner may request COP from Contractor: If Owner desires to order a change in the Work, it may request a written Change Order Proposal (COP) from Contractor. Contractor shall submit a Change Order Proposal within 14 Days of the request from Owner, or within such other period as mutually agreed. Contractor's Change Order Proposal shall be full compensation for implementing the proposed change in the Work, including any adjustment in the Contract Sum or Contract Time, and including compensation for all delays in connection with such change in the Work and for any expense or inconvenience, disruption of schedule, or loss of efficiency or productivity occasioned by the change in the Work.
- C. COP negotiations: Upon receipt of the Change Order Proposal, or a request for equitable adjustment in the Contract Sum or Contract Time, or both, as provided in Sections 7.02 and 7.03, Owner may accept or reject the proposal, request further documentation, or negotiate acceptable terms with Contractor. Pending agreement on the terms of the Change Order, Owner may direct Contractor to proceed immediately with the Change Order Work. Contractor shall not proceed with any change in the Work until it has obtained Owner's approval. All Work done pursuant to any Owner-directed change in the Work shall be executed in accordance with the Contract Documents.
- D. Change Order as full payment and final settlement: If Owner and Contractor reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, such agreement shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of all claims for time and for direct, indirect, and consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity, related to any Work either covered or affected by the Change Order, or related to the events giving rise to the request for equitable adjustment.
- E. Failure to agree upon terms of Change Order; Final offer and Claims: If Owner and Contractor are unable to reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, Contractor may at any time in writing, request a final offer from

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Owner. Owner shall provide Contractor with its written response within 30 Days of Contractor's request. Owner may also provide Contractor with a final offer at any time. If Contractor rejects Owner's final offer, or the parties are otherwise unable to reach agreement, Contractor's only remedy shall be to file a Claim as provided in Part 8.

- F. Field Authorizations: The Owner may direct the Contractor to proceed with a change in the work through a written Field Authorization (also referred to as a Field Order) when the time required to price and execute a Change Order would impact the Project.

The Field Authorization shall describe and include the following:

1. The scope of work
2. An agreed upon maximum not-to-exceed amount
3. Any estimated change to the Contract Time
4. The method of final cost determination in accordance with the requirements of Part 7 of the General Conditions
5. The supporting cost data to be submitted in accordance with the requirements of Part 7 of the General Conditions

Upon satisfactory submittal by the Contractor and approval by the Owner of supporting cost data, a Change Order will be executed. The Owner will not make payment to the Contractor for Field Authorization work until that work has been incorporated into an executed Change Order.

7.02 CHANGE IN THE CONTRACT SUM

A. General Application

1. Contract Sum changes only by Change Order: The Contract Sum shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Sum in its Change Order Proposal.
2. Owner fault or negligence as basis for change in Contract Sum: If the cost of Contractor's performance is changed due to the fault or negligence of Owner, or anyone for whose acts Owner is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Sum in accordance with the following procedure. No change in the Contract Sum shall be allowed to the extent: Contractor's changed cost of performance is due to the fault or negligence of Contractor, or anyone for whose acts Contractor is responsible; the change is concurrently caused by Contractor and Owner; or the change is caused by an act of Force Majeure as defined in Section 3.05.
 - (a) Notice and record keeping for equitable adjustment: A request for an equitable adjustment in the Contract Sum shall be based on written notice delivered to Owner within 7 Days of the occurrence of the event giving rise to the request. For purposes of this part, "occurrence" means when Contractor knew, or in its diligent prosecution of the Work should have known, of the event giving rise to the request. If Contractor believes it is entitled to an adjustment in the Contract Sum, Contractor shall immediately notify Owner and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Owner access to any such records and, if requested shall promptly furnish copies of such records to Owner.
 - (b) Content of notice for equitable adjustment; Failure to comply: Contractor shall not be entitled to any adjustment in the Contract Sum for any occurrence of events or costs that

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occurred more than 7 Days before Contractor's written notice to Owner. The written notice shall set forth, at a minimum, a description of: the event giving rise to the request for an equitable adjustment in the Contract Sum; the nature of the impacts to Contractor and its Subcontractors of any tier, if any; and to the extent possible the amount of the adjustment in Contract Sum requested. Failure to properly give such written notice shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.

- (c) Contractor to provide supplemental information: Within 30 Days of the occurrence of the event giving rise to the request, unless Owner agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the written notice provided in accordance with subparagraph a. above with additional supporting data. Such additional data shall include, at a minimum: the amount of compensation requested, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the damages claimed, but that the damages claimed were actually a result of the act, event, or condition complained of and that the Contract Documents provide entitlement to an equitable adjustment to Contractor for such act, event, or condition; and documentation sufficiently detailed to permit an informed analysis of the request by Owner. When the request for compensation relates to a delay, or other change in Contract Time, Contractor shall demonstrate the impact on the critical path, in accordance with Section 7.03C. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.
 - (d) Contractor to proceed with Work as directed: Pending final resolution of any request made in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.
 - (e) Contractor to combine requests for same event together: Any requests by Contractor for an equitable adjustment in the Contract Sum and in the Contract Time that arise out of the same event(s) shall be submitted together.
3. Methods for calculating Change Order amount: The value of any Work covered by a Change Order, or of any request for an equitable adjustment in the Contract Sum, shall be determined by one of the following methods:
- (a) Fixed Price: On the basis of a fixed price as determined in paragraph 7.02B.
 - (b) Unit Prices: By application of unit prices to the quantities of the items involved as determined in paragraph 7.02C.
 - (c) Time and Materials: On the basis of time and material as determined in paragraph 7.02D.
4. Fixed price method is default; Owner may direct otherwise: When Owner has requested Contractor to submit a Change Order Proposal, Owner may direct Contractor as to which method in subparagraph 3 above to use when submitting its proposal. Otherwise, Contractor shall determine the value of the Work, or of a request for an equitable adjustment, on the basis of the fixed price method.

B. Change Order Pricing – Fixed Price

Procedures: When the fixed price method is used to determine the value of any Work covered by a Change Order, or of a request for an equitable adjustment in the Contract Sum, the following procedures shall apply:

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1. Breakdown and itemization of details on COP: Contractor's Change Order Proposal, or request for adjustment in the Contract Sum, shall be accompanied by a complete itemization of the costs, including labor, material, subcontractor costs, and overhead and profit. The costs shall be itemized in the manner set forth below, and shall be submitted on breakdown sheets in a form approved by Owner.
2. Use of industry standards in calculating costs: All costs shall be calculated based upon appropriate industry standard methods of calculating labor, material quantities, and equipment costs.
3. Costs contingent on Owner's actions: If any of Contractor's pricing assumptions are contingent upon anticipated actions of Owner, Contractor shall clearly state them in the proposal or request for an equitable adjustment.
4. Markups on additive and deductive Work: The cost of any additive or deductive changes in the Work shall be calculated as set forth below, except that overhead and profit shall not be included on deductive changes in the Work. Where a change in the Work involves additive and deductive work by the same Contractor or Subcontractor, small tools, overhead, profit, bond and insurance markups will apply to the net difference.
5. Breakdown not required if change less than \$1,000: If the total cost of the change in the Work or request for equitable adjustment does not exceed \$1,000, Contractor shall not be required to submit a breakdown if the description of the change in the Work or request for equitable adjustment is sufficiently definitive for Owner to determine fair value.
6. Breakdown required if change between \$1,000 and \$2,500: If the total cost of the change in the Work or request for equitable adjustment is between \$1,000 and \$2,500, Contractor may submit a breakdown in the following level of detail if the description of the change in the Work or if the request for equitable adjustment is sufficiently definitive to permit the Owner to determine fair value:
 - a. lump sum labor;
 - b. lump sum material;
 - c. lump sum equipment usage;
 - d. overhead and profit as set forth below; and
 - e. insurance and bond costs as set forth below.
7. Components of increased cost: Any request for adjustment of Contract Sum based upon the fixed price method shall include only the following items:
 - a. Craft labor costs: These are the labor costs determined by multiplying the estimated or actual additional number of craft hours needed to perform the change in the Work by the hourly labor costs. Craft hours should cover direct labor, as well as indirect labor due to trade inefficiencies. The hourly costs shall be based on the following:
 - (1) Basic wages and benefits: Hourly rates and benefits as stated on the L&I approved "statement of intent to pay prevailing wages" or a higher amount if approved by the Owner. Direct supervision shall be a reasonable percentage not to exceed 15% of the cost of direct labor. No supervision markup shall be allowed for a working supervisor's hours.
 - (2) Worker's insurance: Direct contributions to the state of Washington for industrial insurance; medical aid; and supplemental pension, by the class and rates established by the L&I.

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- (3) Federal insurance: Direct contributions required by the Federal Insurance Compensation Act; Federal Unemployment Tax Act; and the State Unemployment Compensation Act.
 - (4) Travel allowance: Travel allowance and/or subsistence, if applicable, not exceeding those allowances established by regional labor union agreements, which are itemized and identified separately.
 - (5) Safety: Cost incurred due to the Washington Industrial Safety and Health Act, which shall be a reasonable percentage not to exceed 2% of the sum of the amounts calculated in (1), (2), and (3) above.
- b. Material costs: This is an itemization of the quantity and cost of materials needed to perform the change in the Work. Material costs shall be developed first from actual known costs, second from supplier quotations or if these are not available, from standard industry pricing guides. Material costs shall consider all available discounts. Freight costs, express charges, or special delivery charges, shall be itemized.
- c. Equipment costs: This is an itemization of the type of equipment and the estimated or actual length of time the construction equipment appropriate for the Work is or will be used on the change in the Work. Costs will be allowed for construction equipment only if used solely for the changed Work, or for additional rental costs actually incurred by the Contractor. Equipment charges shall be computed on the basis of actual invoice costs or if owned, from the current edition of one of the following sources:
- (1) The National Electrical Contractors Association for equipment used on electrical work.
 - (2) The Mechanical Contractors Association of America for equipment used on mechanical work.
 - (3) The EquipmentWatch Fleet Manager Estimator Package (digital). The maximum rate for standby equipment shall not exceed that shown in the Associated General Contractors Washington State Department of Transportation (AGC WSDOT) Equipment Rental Agreement, current edition on the Contract execution date.
- The EquipmentWatch Rental Rate Blue Book shall be used as a basis for establishing rental rates of equipment not listed in the above sources. The maximum rate for standby equipment shall not exceed that shown in the AGC WSDOT Equipment Rental Agreement, current edition on the Contract execution date.
- d. Allowance for small tools, expendables & consumable supplies: Small tools consist of tools which cost \$250 or less and are normally furnished by the performing contractor. The maximum rate for small tools shall not exceed the following:
- (1) 3% for Contractor: For Contractor, 3% of direct labor costs.
 - (2) 5% for Subcontractors: For Subcontractors, 5% of direct labor costs.
- Expendables and consumables supplies directly associated with the change in Work must be itemized.
- e. Subcontractor costs: This is defined as payments Contractor makes to Subcontractors for changed Work performed by Subcontractors of any tier. The Subcontractors' cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.

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- f. Allowance for overhead: This is defined as costs of any kind attributable to direct and indirect delay, acceleration, or impact, added to the total cost to Owner of any change in the Contract Sum. If the Contractor is compensated under Section 7.03D, the amount of such compensation shall be reduced by the amount Contractor is otherwise entitled to under this subsection (f). This allowance shall compensate Contractor for all noncraft labor, temporary construction facilities, field engineering, schedule updating, as-built drawings, home office cost, B&O taxes, office engineering, estimating costs, additional overhead because of extended time, and any other cost incidental to the change in the Work. It shall be strictly limited in all cases to a reasonable amount, mutually acceptable, or if none can be agreed upon to an amount not to exceed the rates below:
- (1). Projects less than \$3 million: For projects where the Contract Award Amount is under \$3 million, the following shall apply:
- (a) Contractor markup on Contractor Work: For Contractor, for any Work actually performed by Contractor's own forces, 16% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
 - (b) Subcontractor markup for Subcontractor Work: For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 16% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
 - (c) Contractor markup for Subcontractor Work: For Contractor, for any work performed by its Subcontractor(s) 6% of the first \$50,000 of the amount due each Subcontractor, and 4% of the remaining amount if any.
 - (d) Subcontractor markup for lower tier Subcontractor Work: For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% of the first \$50,000 of the amount due the sub-Subcontractor, and 2% of the remaining amount if any.
 - (e) Basis of cost applicable for markup: The cost to which overhead is to be applied shall be developed in accordance with Section 7.02B 7a. – e.
- (2). Projects more than \$3 million: For projects where the Contract Award Amount is equal to or exceeds \$3 million, the following shall apply:
- (a) Contractor markup on Contractor Work: For Contractor, for any Work actually performed by Contractor's own forces, 12% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
 - (b) Subcontractor markup for Subcontractor Work: For each Subcontractor (including lower tier subcontractors), for any Work actually performed by its own forces, 12% of the first \$50,000 of the cost, and 4% of the remaining cost, if any.
 - (c) Contractor markup for Subcontractor Work: For Contractor, for any Work performed by its Subcontractor(s), 4% of the first \$50,000 of the amount due each Subcontractor, and 2% of the remaining amount if any.
 - (d) Subcontractor markup for lower tier Subcontractor Work: For each Subcontractor, for any Work performed by its Subcontractor(s) of any lower tier, 4% of the first \$50,000 of the amount due the sub-Subcontractor, and 2% of the remaining amount if any.

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- (e) Basis of cost applicable for markup: The cost to which overhead is to be applied shall be developed in accordance with Section 7.02B 7a. – e.
- g. Allowance for profit: Allowance for profit is an amount to be added to the cost of any change in contract sum, but not to the cost of change in Contract Time for which contractor has been compensated pursuant to the conditions set forth in Section 7.03. It shall be limited to a reasonable amount, mutually acceptable, or if none can be agreed upon, to an amount not to exceed the rates below:
- (1) Contractor / Subcontractor markup for self-performed Work: For Contractor or Subcontractor of any tier for work performed by their forces, 6% of the cost developed in accordance with Section 7.02B 7a. – e.
 - (2) Contractor / Subcontractor markup for Work performed at lower tier: For Contractor or Subcontractor of any tier for work performed by a subcontractor of a lower tier, 4% of the subcontract cost developed in accordance with Section 7.02B 7a. – h.
- h. Insurance and bond premiums: Cost of change in insurance or bond premium: This is defined as:
- (1) Contractor's liability insurance: The cost of any changes in Contractor's liability insurance arising directly from execution of the Change Order; and
 - (2) Payment and Performance Bond: The cost of the additional premium for Contractor's bond arising directly from the changed Work.

The cost of any change in insurance or bond premium shall be added after overhead and allowance for profit are calculated in accordance with subparagraph f. and g above.

C. Change Order Pricing – Unit Prices

1. Content of Owner authorization: Whenever Owner authorizes Contractor to perform Work on a unit-price basis, Owner's authorization shall clearly state:
 - a. Scope: Scope of work to be performed;
 - b. Reimbursement basis: Type of reimbursement including pre-agreed rates for material quantities; and
 - c. Reimbursement limit: Cost limit of reimbursement.
2. Contractor responsibilities: Contractor shall:
 - a. Cooperate with Owner and assist in monitoring the Work being performed. As requested by Owner, Contractor shall identify workers assigned to the Change Order Work and areas in which they are working;
 - b. Leave access as appropriate for quantity measurement; and
 - c. Not exceed any cost limit(s) without Owner's prior written approval.
3. Cost breakdown consistent with Fixed Price requirements: Contractor shall submit costs in accordance with paragraph 7.02B and satisfy the following requirements:

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- a. Unit prices must include overhead, profit, bond and insurance premiums: Unit prices shall include reimbursement for all direct and indirect costs of the Work, including overhead, profit, bond, and insurance costs; and
- b. Owner verification of quantities: Quantities must be supported by field measurement statements signed by Owner.

D. Change Order Pricing – Time-and-Material Prices

- 1. Content of Owner authorization: Whenever Owner authorizes Contractor to perform Work on a time-and-material basis, Owner's authorization shall clearly state:
 - a. Scope: Scope of Work to be performed;
 - b. Reimbursement basis: Type of reimbursement including pre-agreed rates, if any, for material quantities or labor; and
 - c. Reimbursement limit: Cost limit of reimbursement.
- 2. Contractor responsibilities: Contractor shall:
 - a. Identify workers assigned: Cooperate with Owner and assist in monitoring the Work being performed. As requested by Owner, identify workers assigned to the Change Order Work and areas in which they are working;
 - b. Provide daily timesheets: Identify on daily time sheets all labor performed in accordance with this authorization. Submit copies of daily time sheets within 2 working days for Owner's review.
 - c. Allow Owner to measure quantities: Leave access as appropriate for quantity measurement;
 - d. Perform Work efficiently: Perform all Work in accordance with this section as efficiently as possible; and
 - e. Not exceed Owner's cost limit: Not exceed any cost limit(s) without Owner's prior written approval.
- 3. Cost breakdown consistent with Fixed Price requirements: Contractor shall submit costs in accordance with paragraph 7.02B and additional verification supported by:
 - a. Timesheets: Labor detailed on daily time sheets; and
 - b. Invoices: Invoices for material.

7.03 CHANGE IN THE CONTRACT TIME

- A. COP requests for Contract Time: The Contract Time shall only be changed by a Change Order. Contractor shall include any request for a change in the Contract Time in its Change Order Proposal.
- B. Time extension permitted if not Contractor's fault: If the time of Contractor's performance is changed due to an act of Force Majeure, or due to the fault or negligence of Owner or anyone for whose acts Owner is responsible, Contractor shall be entitled to make a request for an equitable adjustment in the Contract Time in accordance with the following procedure. No adjustment in the Contract Time shall be allowed to the extent Contractor's changed time of

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performance is due to the fault or negligence of Contractor, or anyone for whose acts Contractor is responsible.

1. Notice and record keeping for Contract Time request: A request for an equitable adjustment in the Contract Time shall be based on written notice delivered within 7 Days of the occurrence of the event giving rise to the request. If Contractor believes it is entitled to adjustment of Contract Time, Contractor shall immediately notify Owner and begin to keep and maintain complete, accurate, and specific daily records. Contractor shall give Owner access to any such record and if requested, shall promptly furnish copies of such record to Owner.
 2. Timing and content of Contractor's Notice: Contractor shall not be entitled to an adjustment in the Contract Time for any events that occurred more than 7 Days before Contractor's written notice to Owner. The written notice shall set forth, at a minimum, a description of: the event giving rise to the request for an equitable adjustment in the Contract Time; the nature of the impacts to Contractor and its Subcontractors of any tier, if any; and to the extent possible the amount of the adjustment in Contract Time requested. Failure to properly give such written notice shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.
 3. Contractor to provide supplemental information: Within 30 Days of the occurrence of the event giving rise to the request, unless Owner agrees in writing to allow an additional period of time to ascertain more accurate data, Contractor shall supplement the written notice provided in accordance with subparagraph 7.03B.2 with additional supporting data. Such additional data shall include, at a minimum: the amount of delay claimed, itemized in accordance with the procedure set forth herein; specific facts, circumstances, and analysis that confirms not only that Contractor suffered the delay claimed, but that the delay claimed was actually a result of the act, event, or condition complained of, and that the Contract Documents provide entitlement to an equitable adjustment in Contract Time for such act, event, or condition; and supporting documentation sufficiently detailed to permit an informed analysis of the request by Owner. Failure to provide such additional information and documentation within the time allowed or within the format required shall, to the extent Owner's interests are prejudiced, constitute a waiver of Contractor's right to an equitable adjustment.
 4. Contractor to proceed with Work as directed: Pending final resolution of any request in accordance with this paragraph, unless otherwise agreed in writing, Contractor shall proceed diligently with performance of the Work.
- C. Contractor to demonstrate impact on critical path of schedule: Any change in the Contract Time covered by a Change Order, or based on a request for an equitable adjustment in the Contract Time, shall be limited to the change in the critical path of Contractor's schedule attributable to the change of Work or event(s) giving rise to the request for equitable adjustment. Any Change Order Proposal or request for an adjustment in the Contract Time shall demonstrate the impact on the critical path of the schedule. Contractor shall be responsible for showing clearly on the Progress Schedule that the change or event: had a specific impact on the critical path, and except in case of concurrent delay, was the sole cause of such impact; and could not have been avoided by resequencing of the Work or other reasonable alternatives.
- D. Cost of change in Contract Time: Contractor may request compensation for the cost of a change in Contract Time in accordance with this paragraph, 7.03D, subject to the following conditions:
1. Must be solely fault of Owner or A/E: The change in Contract Time shall solely be caused by the fault or negligence of Owner or A/E;
 2. Procedures: Contractor shall follow the procedure set forth in paragraph 7.03B;

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3. Demonstrate impact on critical path: Contractor shall establish the extent of the change in Contract Time in accordance with paragraph 7.03C; and
4. Limitations on daily costs: The daily cost of any change in Contract Time shall be limited to the items below, less the amount of any change in the Contract Sum the Contractor may otherwise be entitled to pursuant to Section 7.02B 7f for any change in the Work that contributed to this change in Contract Time:
 - a. Non-productive supervision or labor: cost of nonproductive field supervision or labor extended because of delay;
 - b. Weekly meetings and indirect activities: cost of weekly meetings or similar indirect activities extended because of the delay;
 - c. Temporary facilities or equipment rental: cost of temporary facilities or equipment rental extended because of the delay;
 - d. Insurance premiums: cost of insurance extended because of the delay;
 - e. Overhead: general and administrative overhead in an amount to be agreed upon, but not to exceed 3% of the Contract Award Amount divided by the originally specified Contract Time for each Day of the delay.

PART 8 – CLAIMS AND DISPUTE RESOLUTION

8.01 CLAIMS PROCEDURE

- A. Claim is Contractor's remedy: If the parties fail to reach agreement on the terms of any Change Order for Owner-directed Work as provided in Section 7.01, or on the resolution of any request for an equitable adjustment in the Contract Sum as provided in Section 7.02 or the Contract Time as provided in Section 7.03, Contractor's only remedy shall be to file a Claim with Owner as provided in this section.
- B. Claim filing deadline for Contractor: Contractor shall file its Claim within 120 Days from Owner's final offer made in accordance with paragraph 7.01E, or by the date of Final Acceptance, whichever occurs first.
- C. Claim must cover all costs and be documented: The Claim shall be deemed to cover all changes in cost and time (including direct, indirect, impact, and consequential) to which Contractor may be entitled. It shall be fully substantiated and documented. At a minimum, the Claim shall contain the following information:
 1. Factual statement of Claim: A detailed factual statement of the Claim for additional compensation and time, if any, providing all necessary dates, locations, and items of Work affected by the Claim;
 2. Dates: The date on which facts arose which gave rise to the Claim;
 3. Owner and A/E employee's knowledgeable about Claim: The name of each employee of Owner or A/E knowledgeable about the Claim;
 4. Support from Contract Documents: The specific provisions of the Contract Documents which support the Claim;

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5. Identification of other supporting information: The identification of any documents and the substance of any oral communications that support the Claim;
 6. Copies of supporting documentation: Copies of any identified documents, other than the Contract Documents, that support the Claim;
 7. Details on Claim for Contract Time: If an adjustment in the Contract Time is sought: the specific days and dates for which it is sought; the specific reasons Contractor believes an extension in the Contract Time should be granted; and Contractor's analysis of its Progress Schedule to demonstrate the reason for the extension in Contract Time;
 8. Details on Claim for adjustment of Contract Sum: If an adjustment in the Contract Sum is sought, the exact amount sought and a breakdown of that amount into the categories set forth in, and in the detail as required by Section 7.02; and
 9. Statement certifying Claim: A statement certifying, under penalty of perjury, that the Claim is made in good faith, that the supporting cost and pricing data are true and accurate to the best of Contractor's knowledge and belief, that the Claim is fully supported by the accompanying data, and that the amount requested accurately reflects the adjustment in the Contract Sum or Contract Time for which Contractor believes Owner is liable.
- D. Owner's response to Claim filed: After Contractor has submitted a fully documented Claim that complies with all applicable provisions of Parts 7 and 8, Owner shall respond, in writing, to Contractor as follows:
1. Response time for Claim less than \$50,000: If the Claim amount is less than \$50,000, with a decision within 60 Days from the date the Claim is received; or
 2. Response time for Claim of \$50,000 or more: If the Claim amount is \$50,000 or more, with a decision within 60 Days from the date the Claim is received, or with notice to Contractor of the date by which it will render its decision. Owner will then respond with a written decision in such additional time.
- E. Owner's review of Claim and finality of decision: To assist in the review of Contractor's Claim, Owner may visit the Project site, or request additional information, in order to fully evaluate the issues raised by the Claim. Contractor shall proceed with performance of the Work pending final resolution of any Claim. Owner's written decision as set forth above shall be final and conclusive as to all matters set forth in the Claim, unless Contractor follows the procedure set forth in Section 8.02.
- F. Waiver of Contractor rights for failure to comply with this Section: Any Claim of the Contractor against the Owner for damages, additional compensation, or additional time, shall be conclusively deemed to have been waived by the Contractor unless made in accordance with the requirements of this Section.

8.02 ARBITRATION

- A. Timing of Contractor's demand for arbitration: If Contractor disagrees with Owner's decision rendered in accordance with paragraph 8.01D, Contractor shall provide Owner with a written demand for arbitration. No demand for arbitration of any such Claim shall be made later than 30 Days after the date of Owner's decision on such Claim; failure to demand arbitration within said 30 Day period shall result in Owner's decision being final and binding upon Contractor and its Subcontractors.
- B. Filing of Notice for arbitration: Notice of the demand for arbitration shall be filed with the American Arbitration Association (AAA), with a copy provided to Owner. The parties shall negotiate or

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mediate under the Voluntary Construction Mediation Rules of the AAA, or mutually acceptable service, before seeking arbitration in accordance with the Construction Industry Arbitration Rules of AAA as follows:

1. Claims less than \$30,000: Disputes involving \$30,000 or less shall be conducted in accordance with the Northwest Region Expedited Commercial Arbitration Rules; or
 2. Claims greater than \$30,000: Disputes over \$30,000 shall be conducted in accordance with the Construction Industry Arbitration Rules of the AAA, unless the parties agree to use the expedited rules.
- C. Arbitration is forum for resolving Claims: All Claims arising out of the Work shall be resolved by arbitration. The judgment upon the arbitration award may be entered, or review of the award may occur, in the superior court having jurisdiction thereof. No independent legal action relating to or arising from the Work shall be maintained.
- D. Owner may combine Claims into same arbitration: Claims between Owner and Contractor, Contractor and its Subcontractors, Contractor and A/E, and Owner and A/E shall, upon demand by Owner, be submitted in the same arbitration or mediation.
- E. Settlement outside of arbitration to be documented in Change Order: If the parties resolve the Claim prior to arbitration judgment, the terms of the resolution shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of the Claim, including all claims for time and for direct, indirect, or consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity.

8.03 CLAIMS AUDITS

- A. Owner may audit Claims: All Claims filed against Owner shall be subject to audit at any time following the filing of the Claim. Failure of Contractor, or Subcontractors of any tier, to maintain and retain sufficient records to allow Owner to verify all or a portion of the Claim or to permit Owner access to the books and records of Contractor, or Subcontractors of any tier, shall constitute a waiver of the Claim and shall bar any recovery.
- B. Contractor to make documents available: In support of Owner audit of any Claim, Contractor shall, upon request, promptly make available to Owner the following documents:
1. Daily time sheets and supervisor's daily reports;
 2. Collective bargaining agreements;
 3. Insurance, welfare, and benefits records;
 4. Payroll registers;
 5. Earnings records;
 6. Payroll tax forms;
 7. Material invoices, requisitions, and delivery confirmations;
 8. Material cost distribution worksheet;
 9. Equipment records (list of company equipment, rates, etc.);
 10. Vendors', rental agencies', Subcontractors', and agents' invoices;

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11. Contracts between Contractor and each of its Subcontractors, and all lower-tier Subcontractor contracts and supplier contracts;
 12. Subcontractors' and agents' payment certificates;
 13. Cancelled checks (payroll and vendors);
 14. Job cost report, including monthly totals;
 15. Job payroll ledger;
 16. Planned resource loading schedules and summaries;
 17. General ledger;
 18. Cash disbursements journal;
 19. Financial statements for all years reflecting the operations on the Work. In addition, the Owner may require, if it deems it appropriate, additional financial statements for 3 years preceding execution of the Work;
 20. Depreciation records on all company equipment whether these records are maintained by the company involved, its accountant, or others;
 21. If a source other than depreciation records is used to develop costs for Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents;
 22. All nonprivileged documents which relate to each and every Claim together with all documents which support the amount of any adjustment in Contract Sum or Contract Time sought by each Claim;
 23. Work sheets or software used to prepare the Claim establishing the cost components for items of the Claim including but not limited to labor, benefits and insurance, materials, equipment, Subcontractors, all documents which establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals; and
 24. Work sheets, software, and all other documents used by Contractor to prepare its bid.
- C. Contractor to provide facilities for audit and shall cooperate: The audit may be performed by employees of Owner or a representative of Owner. Contractor, and its Subcontractors, shall provide adequate facilities acceptable to Owner, for the audit during normal business hours. Contractor, and all Subcontractors, shall make a good faith effort to cooperate with Owner's auditors.

PART 9 – TERMINATION OF THE WORK

9.01 TERMINATION BY OWNER FOR CAUSE

- A. 7 Day Notice to Terminate for Cause: Owner may, upon 7 Days written notice to Contractor and to its surety, terminate (without prejudice to any right or remedy of Owner) the Work, or any part of it, for cause upon the occurrence of any one or more of the following events:

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1. Contractor fails to prosecute Work: Contractor fails to prosecute the Work or any portion thereof with sufficient diligence to ensure Substantial Completion of the Work within the Contract Time;
 2. Contractor bankrupt: Contractor is adjudged bankrupt, makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency;
 3. Contractor fails to correct Work: Contractor fails in a material way to replace or correct Work not in conformance with the Contract Documents;
 4. Contractor fails to supply workers or materials: Contractor repeatedly fails to supply skilled workers or proper materials or equipment;
 5. Contractor failure to pay Subcontractors or labor: Contractor repeatedly fails to make prompt payment due to Subcontractors or for labor;
 6. Contractor violates laws: Contractor materially disregards or fails to comply with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or
 7. Contractor in material breach of Contract: Contractor is otherwise in material breach of any provision of the Contract Documents.
- B. Owner's actions upon termination: Upon termination, Owner may at its option:
1. Take possession of Project site: Take possession of the Project site and take possession of or use all materials, equipment, tools, and construction equipment and machinery thereon owned by Contractor to maintain the orderly progress of, and to finish, the Work;
 2. Accept assignment of Subcontracts: Accept assignment of subcontracts pursuant to Section 5.20; and
 3. Finish the Work: Finish the Work by whatever other reasonable method it deems expedient.
- C. Surety's role: Owner's rights and duties upon termination are subject to the prior rights and duties of the surety, if any, obligated under any bond provided in accordance with the Contract Documents.
- D. Contractor's required actions: When Owner terminates the Work in accordance with this section, Contractor shall take the actions set forth in paragraph 9.02B, and shall not be entitled to receive further payment until the Work is accepted.
- E. Contractor to pay for unfinished Work: If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including compensation for A/E's services and expenses made necessary thereby and any other extra costs or damages incurred by Owner in completing the Work, or as a result of Contractor's actions, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to Owner. These obligations for payment shall survive termination.
- F. Contractor and Surety still responsible for Work performed: Termination of the Work in accordance with this section shall not relieve Contractor or its surety of any responsibilities for Work performed.
- G. Conversion of "Termination for Cause" to "Termination for Convenience": If Owner terminates Contractor for cause and it is later determined that none of the circumstances set forth in paragraph 9.01A exist, then such termination shall be deemed a termination for convenience pursuant to Section 9.02.

9.02 TERMINATION BY OWNER FOR CONVENIENCE

- A. Owner Notice of Termination for Convenience: Owner may, upon written notice, terminate (without prejudice to any right or remedy of Owner) the Work, or any part of it, for the convenience of Owner.
- B. Contractor response to termination Notice: Unless Owner directs otherwise, after receipt of a written notice of termination for either cause or convenience, Contractor shall promptly:
1. Cease Work: Stop performing Work on the date and as specified in the notice of termination;
 2. No further orders or Subcontracts: Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work as is not terminated;
 3. Cancel orders and Subcontracts: Cancel all orders and subcontracts, upon terms acceptable to Owner, to the extent that they relate to the performance of Work terminated;
 4. Assign orders and Subcontracts to Owner: Assign to Owner all of the right, title, and interest of Contractor in all orders and subcontracts;
 5. Take action to protect the Work: Take such action as may be necessary or as directed by Owner to preserve and protect the Work, Project site, and any other property related to this Project in the possession of Contractor in which Owner has an interest; and
 6. Continue performance not terminated: Continue performance only to the extent not terminated
- C. Terms of adjustment in Contract Sum if Contract terminated: If Owner terminates the Work or any portion thereof for convenience, Contractor shall be entitled to make a request for an equitable adjustment for its reasonable direct costs incurred prior to the effective date of the termination, plus reasonable allowance for overhead and profit on Work performed prior to termination, plus the reasonable administrative costs of the termination, but shall not be entitled to any other costs or damages, whatsoever, provided however, the total sum payable upon termination shall not exceed the Contract Sum reduced by prior payments. Contractor shall be required to make its request in accordance with the provisions of Part 7.
- D. Owner to determine whether to adjust Contract Time: If Owner terminates the Work or any portion thereof for convenience, the Contract Time shall be adjusted as determined by Owner.

PART 10 – MISCELLANEOUS PROVISIONS

10.01 GOVERNING LAW

Applicable law and venue: The Contract Documents and the rights of the parties herein shall be governed by the laws of the state of Washington. Venue shall be in the county in which Owner's principal place of business is located, unless otherwise specified.

10.02 SUCCESSORS AND ASSIGNS

Bound to successors; Assignment of Contract: Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party shall assign the Work without written consent of the other, except that Contractor may assign the Work for security

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purposes, to a bank or lending institution authorized to do business in the state of Washington. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations set forth in the Contract Documents.

10.03 MEANING OF WORDS

Meaning of words used in Specifications: Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the code of any governmental authority, whether such reference be specific or by implication, shall be to the latest standard specification, manual, or code in effect on the date for submission of bids, except as may be otherwise specifically stated. Wherever in these Drawings and Specifications an article, device, or piece of equipment is referred to in the singular manner, such reference shall apply to as many such articles as are shown on the drawings, or required to complete the installation.

10.04 RIGHTS AND REMEDIES

No waiver of rights: No action or failure to act by Owner or A/E shall constitute a waiver of a right or duty afforded them under the Contract Documents, nor shall action or failure to act constitute approval or an acquiescence in a breach therein, except as may be specifically agreed in writing.

10.05 CONTRACTOR REGISTRATION

Contractor must be registered or licensed: Pursuant to RCW 39.06, Contractor shall be registered or licensed as required by the laws of the State of Washington, including but not limited to RCW 18.27.

10.06 TIME COMPUTATIONS

Computing time: When computing any period of time, the day of the event from which the period of time begins shall not be counted. The last day is counted unless it falls on a weekend or legal holiday, in which event the period runs until the end of the next day that is not a weekend or holiday. When the period of time allowed is less than 7 days, intermediate Saturdays, Sundays, and legal holidays are excluded from the computation.

10.07 RECORDS RETENTION

Six year records retention period: The wage, payroll, and cost records of Contractor, and its Subcontractors, and all records subject to audit in accordance with Section 8.03, shall be retained for a period of not less than 6 years after the date of Final Acceptance.

10.08 THIRD-PARTY AGREEMENTS

No third party relationships created: The Contract Documents shall not be construed to create a contractual relationship of any kind between: A/E and Contractor; Owner and any Subcontractor; or any persons other than Owner and Contractor.

10.09 ANTITRUST ASSIGNMENT

Contractor assigns overcharge amounts to Owner: Owner and Contractor recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, Contractor hereby assigns to Owner any and all claims for such overcharges as to goods, materials, and equipment purchased in connection with the Work performed in accordance with the Contract Documents, except as to overcharges which result from antitrust violations commencing after the Contract Sum is established and which are not passed on to Owner

under a Change Order. Contractor shall put a similar clause in its Subcontracts, and require a similar clause in its sub-Subcontracts, such that all claims for such overcharges on the Work are passed to Owner by Contractor.

10.10 HEADINGS AND CAPTIONS

Headings for convenience only: All headings and captions used in these General Conditions are only for convenience of reference, and shall not be used in any way in connection with the meaning, effect, interpretation, construction, or enforcement of the General Conditions, and do not define the limit or describe the scope or intent of any provision of these General Conditions.

10.11 DIVERSE BUSINESS PARTICIPTION

The state of Washington encourages participation in all of its contracts by Diverse Businesses as found in RCW Chapters 39, 43, and WAC 326. The voluntary Diverse Business goal of 26%, which is an aggregate of: 10% Minority Business Enterprises (MBE), 6% Women Business Enterprises (WBE), 5% Veteran-owned Business, and 5% Washington Small Businesses self-identified in the Washington Electronic Business Solution (WEBS). Contractors are encouraged to meet or exceed the project goals in the advertisement by any level of participation, regardless of category.

DES reserves the right to adjust the voluntary participation goals.

Businesses are encouraged to register in WEBS, as well as registering as a state certified M/WBE/Veteran Business.

For reporting, Contractor is required to register and create an account in the DES Public Works Diversity Tracking & Management System powered by B2GNow.

Every month for the duration of your contract, and while your contract is active in the DES Public Works Diversity Tracking & Management System, submit and accurately maintain the following information:

1. Payments received by the prime contractor from the Agency
2. Payments paid to each first tier subcontractor
3. Payments paid to each first tier supplier

You must also ensure the following information is reported in the DES Public Works Diversity Tracking & Management System by your first tier subcontractors and suppliers for the duration of your contract:

1. Confirmation of payments from the prime contractor to the first tier subcontractor
2. Confirmation of payments from the prime contractor to first tier suppliers

10.12 MINIMUM LEVELS OF APPRENTICESHIP PARTICIPATION

In accordance with RCW 39.04.320, the State of Washington requires 15% apprenticeship participation for projects estimated to cost one million dollars or more. Contractors who meet or exceed minimum participation requirement are eligible for monetary incentive. Contractors failing to meet minimum apprenticeship participation requirement are subject to monetary penalty.

- A. Apprentice participation, under this contract, may be counted towards the required percentage (%) only if the apprentices are from an apprenticeship program registered and approved by the Washington State Apprenticeship and Training Council (RCW 49.04 and WAC 296-05).
- B. Bidders may contact the L&I to obtain more information about apprenticeship programs.

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- C. No changes to the required percentage (%) of apprentice participation shall be allowed without written approval of the Owner. In any request for the change, the Contractor shall clearly demonstrate a good faith effort to comply with the requirements for apprentice participation.
- D. Any substantive violation of the mandatory requirements of this part of the contract may be a material breach of the contract by the Contractor. The Owner may withhold payment pursuant to Part 6.05, stop the work for cause pursuant to Part 3.04, and terminate the contract for cause pursuant to Part 9.01.

10.13 SPECIAL CONDITIONS

The Owner may have Federal Funding or other special requirements for this project. If applicable, the Contractor will be required to comply with the "DIVISION 00 SPECIAL CONDITIONS" section in the specifications that will be based on the specific requirements of the funding source.

PART II

SPECIFICATIONS

DIVISION 1 – SPECIAL PROVISIONS
SECTION 01 1010
SUMMARY OF WORK

1.1 PROJECT DESCRIPTION

The Greater Tacoma Convention Center (GTCC) is located downtown Tacoma between Commerce Street and Market Street and between South 15th and South 17th Streets. The GTCC Guard House project site is located on the west side of the building atop the parking garage and near the loading ramp with access from Market Street.

This project includes procuring, delivering, and installing a prefabricated Guard House to contain the major system controls for the GTCC.

In all cases, the City's contract is with one (1) general contractor and it is the general contractor's responsibility to ensure all work required to provide a complete and operational facility is included in their bid. When possible, the City has attempted to reference work that should be coordinated with various trades, but it is the contractor's responsibility to coordinate and schedule the work of all subcontractors, trades, and suppliers to assure the proper and timely prosecution and completion of all items of work.

Major components of work under this contract include, but are not limited to, the following:
Installation of a prefabricated Guard House: Procuring, assembling, delivering, placing, and connecting the Guard House on a new foundation along with associated operational systems, electrical, fire suppression, structural and architectural work. Prefabricated Guard House must be constructed and installed in accordance with the State of Washington Factory Built Housing and Commercial Structures Regulations.

Site work: Installing new and relocating existing power, telecommunications, access control, CCTV security, elevator controls, computers and networking, fire alarm and controls, from the existing security room to the new Guard House.

The Convention Center, including the security room, data center, power facilities and other spaces are to remain operational during the installation of the new prefabricated Guard House, installation of new systems and demolition of existing systems. The contractor is responsible for scheduling the systems cross over to the new locations with minimal disruption to the existing operations.

Work described is a brief summary of the bid package; refer to the drawings and specifications for complete scope for the bid package. Work to include coordination with other contractors on site. The bid package contains the complete project and bidder shall provide all labor and materials necessary to accomplish this task.

1.2 PROJECT LOCATION

The project is located at the Greater Tacoma Convention Center, 1500 Commerce Street, Tacoma, Washington, 98402 (Project site is located atop the parking garage near the loading ramp entrance on Market Street).

1.3 SITE SHOWING

The bidder will be responsible for examining the site and to have compared the site with the specifications and contract drawings contained in this specification, and 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, special work conditions including work schedules, obstacles and contingencies) before the delivery of their proposal. No allowance will be subsequently made by the City on behalf of the bidder by reason of any error or neglect on the bidder's part, for such uncertainties as aforesaid. Due to the nature of this project, the bidder is responsible for examining the site prior to placing a bid.

Site visits will follow the COVID-19 public gathering guidelines. The City will coordinate individual bidder appointments to visit the site. A group of no more than 5 individuals will be allowed to visit the site at one time. Personal Protective Equipment (PPE), including face mask, is required at all times. The bidder is responsible for providing their own PPE during the site visit. Bidders without proper PPE will not be allowed to visit the site. The City recommends that bidders call or email to schedule appointments to reduce wait times. Bidders not on the schedule or that miss the scheduled appointment will be subject to waiting for the next available time slot.

Pre-bid site visits will be conducted on Tuesday, July 21st and Thursday, July 23rd between 8 am and 5 pm each day. Bidders will be allowed up to 45 minutes per appointment to view the existing site and control rooms. Questions will be collected during the site visit and responses will be sent to all registered bidders via addendum. Bidders may submit questions until 12:00 PM, Friday, July 24th.

Contact Jon Kulju, Project Manager, at 253-591-5204 or JKulju@cityoftacoma.org for an appointment. It is the bidder's responsibility to assure that they attend the site showing as scheduled.

Failure to examine the site may be grounds to reject the bid. City 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.

By entering into the contract, the bidder 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. 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. The contractor shall draw their own conclusions from such information and make such tests, review and analyses as the contractor deems necessary to understand such conditions and to prepare their proposal.

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

The contractor shall carefully study and compare the contract documents with each other and shall at once report to the City 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. The contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the contractor with the contract documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the City at once.

1.4 COMMENCEMENT, PROSECUTION AND COMPLETION

The contractor will be required to complete the contract documents and to provide surety and payment bonds within ten (10) calendar days after the award of the contract. The contractor shall begin the work to be performed in the contract within ten (10) calendar days after the date of notification to commence work. Notification to commence work may either be by letter or, if no letter is issued, by agreement at the preconstruction conference (or if no letter is issued, by the date the contract is executed by the City).

The contractor shall be required to complete work by January 24, 2021.

1.5 SPECIFICATION FORMAT

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 ensure all work required to provide a complete and operational facility is included in their bid.

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.

References to Washington State Department of Transportation (WSDOT) Standard Specifications are from the 2020 edition.

1.6 CONTRACT WORK TIMES

Contract work times shall be Monday through Sunday, 12:00 AM to 11:59 PM, including holidays. Work shall be done between and coordinated with events within the space. Event schedules take priority and cannot be impacted by the work under this contract. The contractor shall submit a weekly proposed work plan showing required inspections for Monday through Sunday of the following week. This work plan shall be given to the Engineer for approval by 11:00 AM every Friday.

Work not specifically detailed on the weekly work plan as requiring inspection or building system shutdown shall not be performed unless approved by the engineer. The contractor shall reimburse the City for all inspection of work not previously scheduled or approved by the engineer. Work requiring inspection shall be determined solely by the engineer.

Other contractors or the City may be working in the project area and other buildings at the GTCC project during the time of construction. See Section 01 1040, Paragraph 1.6 for additional information. It shall be the responsibility of this contractor to collaborate and coordinate its work with all other agencies and/or contractors within the project area.

Directions of the engineer and/or inspector shall be followed at all times.

1.7 QUALIFICATION OF CONTRACTORS

A. QUALIFIED CONTRACTORS

Only contractors with management, employees, and staff experienced in the type of work required by this specification, and with a record of successful completion of projects of similar scope, complexity, and overall cost will be considered. The bidder must complete the General Contractor Qualifications Submittal form attached to this specification at the time of submitting their bid. The City will be the sole judge of the bidder's ability to meet the requirements of this paragraph. Bidders past work will be judged in complexity of job, time of completion, organization, and other factors that may indicate the abilities of the contractor.

Submit to the engineer within ten (10) calendar days following execution of the contract documents, a list of all subcontractors, including each subcontractor's address, telephone number, and contact person to be used on this project.

B. QUALIFIED SUPERINTENDENT

The contractor shall employ a competent superintendent as referenced in Section 01 1040 – Project Coordination, Paragraph 1.13 – Superintendent.

1.8 SPECIFICATIONS AND DRAWINGS

The following drawings, attached to these specifications, are made a part of the contract:

GTCC – GUARD HOUSE

Drawings for Construction

Sheet No. Title

GENERAL DRAWINGS:

G001	COVER SHEET
G002	SITE PLAN
G020	SCHEDULES

SURVEY:

N/A

CIVIL DRAWINGS:

N/A

DEMOLITION DRAWINGS:

N/A

ARCHITECTURAL DRAWINGS:

A100	FLOOR PLAN
A300	ELEVATIONS AND SECTIONS

STRUCTURAL DRAWINGS:

N/A

MECHANICAL AND PLUMBING DRAWINGS:

N/A

ELECTRICAL DRAWINGS:

E0.01	LEGEND, NOTES & ABBREVIATIONS
E1.01	EXHIBIT ONE-LINE RISER DIAGRAM
E1.03	EMERGENCY POWER ONE-LINE RISER DIAGRAM
E3.30	3RD FLOOR POWER PLAN
E3.31	ENLARGED POWER PLAN
E3.40	4TH FLOOR POWER PLAN
E3.50	5TH FLOOR POWER
E7.00	DETAILS

An electronic copy of the plans and specifications may be obtained at www.TacomaPurchasing.org

A maximum of six (6) set of specifications and six (6) sets of half-size reproducible drawings will be furnished to the successful bidder for construction purposes. It shall be the contractor's responsibility to provide sufficient sets of drawings for building purposes.

The contractor shall keep on the job site a copy of the drawings and the specifications, and shall, at all times, give the engineer access thereto.

1.9 EVALUATION OF BIDS

The award of this contract will not be based on cost alone as other factors and features are equally important. The contract will be awarded to the lowest responsive and responsible bidder complying with the specifications; provided such bid is reasonable and it is in the best interests of the City to accept.

The City, however, reserves the right to reject any and all bids and to waive any informalities in bids received. The City reserves the right to award the contract to the lowest responsive and responsible bidder whose bid will be most advantageous to the City, price and any other factors considered.

All other elements or factors, whether or not specifically provided for in this contract, 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. In addition, the bid evaluation factors set forth in City Code Section 1.06.262 may be considered by the City. The conclusive award decision will be based on the best interests of the City. The engineer's decision as to which contractor best meets the City's need will be final.

In addition the following factors will be used in bid evaluation:

- A. Experience of both company and superintendent completing at least five (5) projects of similar scope, complexity and overall cost.
- B. A minimum of five years (5) documented years experience in project supervision by superintendent.
- C. Proposal prices, base bid, and cost of any or all alternates listed.
- D. Review of all required submittals.
- E. Past record with the City (including satisfying safety requirements).
- F. Bidder's responsibility based on, but not limited to:
 - 1. Ability, capacity, organization, technical qualifications and skill to perform the contract or produce the services required.
 - 2. Contractor's construction record including references, judgment, stability, adequacy of equipment proposed to be furnished.
 - 3. Whether the contract can be performed within the time specified.
 - 4. Quality of performance of previous contracts or services.
- G. Attendance at the Pre-Bid Site Visit

Bid bond instructions:

If submitting your bid electronically, a scanned version of the original bid bond must accompany your electronic bid submittal. The original bond shall be sent to the Contracting Agency and postmarked no later than the day of the bid opening.

Original bid bonds will be delivered to:

City of Tacoma Procurement & Payables Division
Tacoma Public Utilities
PO Box 11007
Tacoma, WA 98411-0007

END OF SECTION

**SECTION 01 1025
MEASUREMENT AND PAYMENT**

1.1 ADMINISTRATION

A. AUTHORITY

The City inspector or engineer in coordination with the contractor shall make all measurements and determine all quantities and amounts of work done for progress payments under the contract.

The engineer shall make an estimate of the work completed or done by the contractor, and such estimates will be made by measurement or approximation at the option of the engineer. The engineer's determination of progress payments shall be conclusive. The City will not pay for material not under City control.

Payment will be made monthly based on the schedule of values as described in this section. Percent completion will be calculated by the engineer based on schedule of values and material on hand. Material not on the project site will not be paid for. Once material is on hand, it will be considered part of the job and shall not be removed for any reason until the entire job is complete.

NOTE: All questions regarding contract status or payments (after award) should be directed to the Engineer.

B. UNIT QUANTITIES SPECIFIED

Quantities indicated in the proposal are for bidding and contract purposes only. Quantities and measurements supplied or placed in the work and verified by the engineer and contractor determine payment.

Adjustments to contract prices due to changes in quantity shall be in accordance with the latest edition of the WSDOT Standard Specifications, unless otherwise modified by this specification.

The City reserves the right to delete any bid item from the contract by notifying the contractor in writing of its intent. In the event of deleted work, the contractor's sole compensation shall be the money due the contractor for materials that had been purchased and obtained by the contractor prior to the deletion of the work.

C. CONTRACT PRICE

The lump sum and unit bid prices shall be full and complete compensation for the contract work stated, together with all appurtenances incidental thereto, including materials, equipment, tools, labor, and all the costs to the contractor for completing the contract in accordance with the plans, specifications, and instructions of the engineer.

All work not specifically described or mentioned in these specifications, but are required to be constructed to achieve complete and operable systems, structures or amenities shall be considered incidental items of work, not separately compensable, and its price included in items of work specified in the specifications.

D. 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

1.2 PROPOSAL ITEMS

1. BASE BID RENOVATION, PER LUMP SUM

A. MEASUREMENT

GTCC – GUARD HOUSE

The work under this bid item will include all labor, materials and equipment to construct the GTCC Guard House work in accordance with the attached plans and specifications.

B. PAYMENT

Measurement will be per percentage of work installed and payment will be made for the lump sum price bid in Accordance with the Attached Plans and Specifications, as listed in the proposal.

1.3 SCHEDULE OF VALUES

A. AUTHORITY

Submit a schedule of values within five (5) days after award of contract for all components of the construction. Schedule of values will be used by the engineer to calculate monthly payment for percent completion as indicated in Section 01 1025 Paragraph 1.1.

Use the specification Table of Contents as a guide to establish the format for the Schedule of Values. Provide at least one (1) line item for each product or work function in each specification section and component of work to include pricing such as to lump sum (LS), per each (EA), linear feet (LF), ton (TON), or cubic yard (CY) prices as approved by the engineer.

1. FORMAT

- A. Type Schedule on 8-1/2 x 11 in. bond paper.
- B. Round amounts to nearest whole dollar; the total shall equal the contract sum.
- C. Contractor's standard form or media-driven printout will be considered on request.
- D. For Specification Divisions 2 through 16 of the Project Manual, follow the Table of Contents for minimum listing of schedule of values. Identify each line item by number and title of each Specification section. Complex line items may be required to be listed in component parts of the line item.
- E. For Specification Division 1, as a minimum, include one (1) line item for each of the following: mobilization, General Conditions, bonds and insurance, punchlist correction, "record" drawings, O&M manuals, operation instructions, and demobilization.

2. REQUIREMENTS

- A. Two (2) weeks prior to submission of first Application and Certificate for Payment, submit schedule of values to the engineer for review.
 - B. List installed value of each major item of Work and each subcontracted item of Work as a separate line item to serve as a basis for computing values for Progress Payments. Round off values to nearest dollar.
 - C. List guarantees/warranties as separate line items for each type of Work, such as roofing, painting, etc. Show the value of each of these on the Schedule of Values.
 - D. For each major subcontract, list products and operations of that subcontract as separate line items.
 - E. For each line item of installed value exceeding \$20,000, show breakdown by major products or operations as separate line items.
 - F. Coordinate listings with Progress Schedule.
 - G. All line item listings shall each include a directly proportional amount of Contractor's overhead and profit.
 - H. For items on which payments will be requested for stored products, list subvalues for cost of stored products.
3. Update and resubmit the Schedule of Values prior to the next application for payment or when change orders or engineering change directives

1.4 FORCE ACCOUNT WORK

A. AUTHORITY

In certain circumstances, the contractor may be required to perform additional work. Where the work to be performed is determined to be extra and not attributed to the contractor's negligence, carelessness, or failure to install permanent controls, it shall be paid in accordance with the unit contract price or by force account.

Such additional work not covered by contract items will be paid for on a force account basis as a negotiated change order with lump sum or unit price items. There is no guarantee that there will be any force account work.

1.5 NON-PAYMENT FOR REJECTED OR SURPLUS PRODUCTS OR WORK

Payment will not be made for work rejected by the City. Products or work not meeting contract requirements shall be replaced by the contractor at no expense to the City, regardless of the impact to work, schedule or cost.

1.6 LIQUIDATED DAMAGES

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine that the work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract. Liquidated damages shall be deducted from the contract by change order.

SYSTEM CROSSOVER

After each system cross-over scheduled finish date and time, if the system fails to operate as required in terms of output, efficiency and reliability according to the dispositions of the Contract, the Contractor shall, and where Performance Failure is a result of Contractor's default, be responsible for the Repairing and shall pay to the City damages incurred as a result of the delay until the Repairing Completion as Performance, liquidated and agreed damages. In any event, the maximum amount of liquidated damages shall not exceed 10 % of the Contract Price.

Limited schedule of system shut down for each system are defined as:

Elevator Control System – 12 Hours

Access and CCTV interface – 12 Hours

Generator Annunciator – 12 hours

Fire Alarm Control System – 48 Hours

Each system shutdown and crossover will be measured independent of each other even if they are scheduled concurrently. Delay on one part will not be reflected upon the other.

1.7 AS-BUILTS

The final retained portion of this contract shall not be released for any reasons until complete redline “AS-BUILT” plans are received and approved by the engineer. Redline “AS-BUILT” plans shall have all necessary information including make/model numbers, dimensions, and layout information necessary to properly draft changes in AutoCAD.

END OF SECTION

**SECTION 01 1040
PROJECT COORDINATION**

1.1 PROJECT ENGINEER/LEAD

The project engineer/lead shall be herein referenced as engineer in these specifications.

Construction management for this project with whom the contractor shall coordinate all their activities once the notice to commence work is issued will be Neal Sartain, Construction Manager. Any changes to these specifications or plans shall be approved by this engineer prior to commencing any work.

Bidder inquiries regarding general purchasing provisions or technical specifications may be directed to Ms. Doreen Klaaskate, Senior Buyer, dklaaskate@cityoftacoma.org.

1.2 MEETINGS

A. PRE-BID EQUITY IN CONTRACTING (EIC) MEETING

A pre-bid conference will not be held. If prospective bidders have any questions regarding the Equity in Contracting Program and Local Employment and Apprenticeship Training Program (LEAP) requirements included in the contract, or need assistance filling out the forms, they are urged to call the City of Tacoma EIC/LEAP Office at (253) 591-5826.

B. PRE-CONSTRUCTION MEETING

Following award of the contract, the engineer will notify the selected bidder of the time and date of the pre-construction meeting to be held at the Tacoma Municipal Building, 747 Market Street, Tacoma, Washington.

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 engineer 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 engineer and become part of the project file.

C. CONSTRUCTION WASTE MANAGEMENT MEETINGS

1. Contractor may discuss waste management goals and issues as part of the regular meetings.
2. Questions concerning waste management shall be directed to City of Tacoma, Solid Waste Manager, at 253-593-7719.

D. COORDINATION MEETING WITH OTHER CONTRACTORS

While this project is underway there will be other major general contractors and City crews performing work in the vicinity of the project. See Section 01 1040, Paragraph 1.4.

Work on these projects may require:

1. Mobilizing and using cranes
2. Concrete pumping
3. Loading and unloading of materials for these projects
4. Disruptions to the work areas adjacent to this project and other activities which must be coordinated among the City and all affected contractors.

As such, there may be coordination meetings required throughout the project depending on the other contracts and at the discretion of the project engineer.

These meetings will be attended by the contractor and/or superintendent and City engineer. These meetings will be to discuss any concerns which affect building systems or yard usage and any outages must be discussed in these meetings to obtain City approval. Adequate notice for major activities must be included in the contractor's schedule or at these meetings to allow for coordination with other contractors or City to mitigate specific construction activities.

1.3 PERMITS

The City has made application to the applicable authorities for the following permits:

Building Permit - BLDCN19-0109

The contractor shall apply for, obtain and pay for all other required permits as set forth in the General Provisions and Section 01 1200 Permits

1.4 COORDINATION WITH OTHERS

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 permitted 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.

All construction activities shall be coordinated daily with the engineer or their designated representative. Changes to the schedule that will impact on dates shown as milestones on the schedule shall be coordinated with the engineer on a daily basis.

The contractor shall give a minimum of 72 hours' notice to the City for all planned power or utility interruptions and all mechanical interruptions to occupied areas.

The City will be using this facility for ongoing daily office operations. See Section 01 1040, Paragraph 1.12 for additional information.

The contractor shall become familiar with the ongoing operations and include all coordination required as part of the bid. The contractor shall follow all requirements of the City and do all coordination as part of the required work.

B. SCHEDULE AND COORDINATION OF WORK

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.

1.5 DIVISION OF WORK

A. MATERIAL FURNISHED AND INSTALLED BY CONTRACTOR

The contractor shall furnish and pay for all necessary materials (except City-furnished) and shall provide all labor, tools, equipment and superintendent, and perform all work incidental to the completion of the project as contemplated by this contract in accordance with the plans, specifications, and instructions of the engineer.

Each subcontractor shall furnish and install all materials and equipment unless otherwise specified.

Requests for use of alternate materials shall be submitted prior to bid opening in accordance with Section 01 1300, Paragraph 1.3 – "Or Equal" Clause or Substitutions.

1.6 LIMITATION OF CONTRACTOR'S WORK AREA/OR CONTRACTOR'S USE OF PREMISES

A. BARRIERS

The contractor shall furnish barriers, cones, or candle sticks with caution tape, dividing work area from area in City use.

B. WORK BY OTHERS AND WORK BY CITY

Other contractors or the City may be working in the project area and other buildings at the GTCC site during the time of construction. It shall be the responsibility of this contractor to collaborate and

coordinate its work with all other agencies and/or contractors within the project area.

C. CONTRACTOR'S USE OF PREMISES

All requests for use of areas not designated for use by the contractor shall be made in writing to the engineer for approval at least four (4) days in advance of the need. The engineer shall approve those areas for use prior to use by the contractor.

All staging and work areas shall be submitted with bids for approval by the engineer.

1.7 HAZARDOUS MATERIALS

The City has tested areas of work to be disturbed during construction. 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.

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.

1.8 CONTRACT CHANGES

The City has developed four (4) forms to facilitate and track communications with the contractor. These are the **Request for Information (RFI)**, **Engineering Change Directive (ECD)**, **Proposal Request (PR)**, and **Change Order Proposal (COP)**. These forms are included at the end of the Special Provisions.

The **Request for Information (RFI)** shall be used by the contractor whenever written direction on conflicts in plans, insufficient or unconstructable detail is shown, or any other issue which should be documented arises. The City 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, as such, any issued by the City will be unnumbered until delivered to the contractor.

The **Engineering Change Directive (ECD)** shall be used by the City to transmit new or revised drawings, issue additions or modifications to the contract or furnish any other direction which should be documented.

Directives are effective immediately. Should the contractor believe that such Directive should result in either a change in cost or time for the project, they shall notify the engineer prior to commencing such work

and, if possible, submit a **Change Order Proposal** prior to the start of such work, but in no case, more than seven (7) days from receipt of said Directive.

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 Directive from the City, the contractor shall have no claim for extra cost or time or impacts attributable to the work required by the Directive. (Directives are numbered by the City.) Once the City and the contractor have established a price for the changes required by the Directive or any other request by the City for a change in the work, and a **Change Order Proposal** issues reflecting the agreed upon price, it is agreed and understood that the price reflected by the **Change Order Proposal** 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 Directive, and work performed by the contractor up to the date of the **Change Order Proposal**.

The **Proposal Request (PR)** shall be used by the City to request pricing on a possible change in plans or additional work. The PR may also be used to request credits for deletion or changes in scope of work. The contractor shall respond to such requests with a **Change Order Proposal** within seven (7) days from receipt of said Request unless more time has been agreed to. Requests are numbered by the City.

The **Change Order Proposal (COP)** shall be used by the contractor to respond to City issued Proposal Requests, Engineering Change Directives or when the contractor believes that changed conditions or omitted, but necessary, work items exist. The COP may be used for requested changes in cost or time of the contract. 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.

1.9 DIFFERING SITE CONDITIONS

Differing site conditions shall be administered in accordance with Sections 1.04.5, 1.04.7, and 1.09.11 of the Washington State Department of Transportation Standard Specifications except as stipulated in these Special and General Provisions. 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.

The contractor shall promptly, and before conditions are disturbed, notify the engineer or their field representative of problems with subsurface conditions at the site, problems or conflicts in the plans or specifications or problems on constructability. A written **Request for Information (RFI)** shall be submitted by the contractor when such problems and direction are required.

The engineer shall promptly investigate the conditions, and if agreed upon with the contractor, adjustment shall be made on the appropriate details in writing to facilitate construction. The response may be on the RFI or may necessitate an **Engineering Change Directive (ECD)** or **Proposal Request (PR)**. No claim by the contractor under this differing site condition shall be allowed except as agreed upon in writing with the engineer.

Whenever possible, should the City desire extra work to be performed a Proposal Request (PR) shall be sent to the contractor.

Whenever possible, the contractor shall submit in advance and in writing, a Change Order Proposal (COP) for changes in the scope of work and/or contract amount. This proposal shall be either accepted or rejected in writing by the project engineer prior to work commencing. When no agreement can be reached, the City may order extra work on force account.

When time is short, the contractor shall notify the City extra work is required or the City shall notify the contractor that extra work is needed and at a minimum, the engineer shall issue a handwritten Engineering Change Directive. In such cases, said handwritten Directive will not be considered as agreement that such work is extra. Within seven (7) days, the contractor shall submit a written Change Order Proposal for changes in the scope of work and/or contract amount.

1.10 CONSTRUCTION PROGRESS SCHEDULES

A. FORMAT

The contractor shall prepare schedules as a horizontal bar chart with separate bar for each major portion of work or operation, identifying the first work day of each week and include holidays and times when facility will not be available to contractor for City installed work.

B. CONTENT

This schedule shall be activity-oriented showing as nearly as can be determined the starting and completion dates of each event. The schedule shall show the materials delivery, structure erection, and installation. It will include the start and completion of each major civil, structural, mechanical, communications and electrical item of work critical to the general contractor's operation.

Show complete sequence of construction, by activity, with dates for beginning and completion of each element of construction.

Identify each task by the appropriate proposal bid item number and subcontractor responsible.

As a minimum, the following tasks shall be included on the schedule:

1. Scope of Work identified – architectural, landscape, civil, structural, mechanical, electrical, and communications.
2. Phases of work where required.
3. Milestone dates GTCC system control cross-over and shut-down dates and times.

C. SEQUENCE SCHEDULING

Progress schedules are required to be coordinated with the City and updated bi-monthly or when changes occur. Acceptance or approval of the progress schedule does not release the contractor from the responsibility to provide the necessary resources to meet the schedule.

D. SUBMITTALS

The contractor shall submit initial schedules at the preconstruction meeting or at a minimum of within five (5) working days after the contract award. After review, if the engineer requires changes, resubmit required revised data within five (5) working days.

The contractor shall use the attached Submittal Transmittal form (electronic version is available from the engineer) for all submittals.

Within ten (10) days of the date of the contract, the contractor and the engineer will reach an agreement on all adjustments and all modifications to the submitted schedule, which are warranted. The schedule, thus modified, will become part of the contract.

The failure of the contractor to submit a schedule(s), or the inability of the contractor and the City to reach an agreement as to modifications to a schedule, shall not excuse the contractor's obligation to perform the work required by the specifications in the number of days required by the specification.

Twice a month, the City's and the contractor's site representatives will meet and perform a "Line-to-Line" review of items on the schedule, illustrating their plan for meeting the completion dates specified in this contract and the associated construction costs for each subcontractor.

The contractor shall be required to submit all color samples for the entire structure at one time. That shall include tile, grout, base, paint, fixtures, stain, etc. The contractor will make a color board for the building and submit to the engineer for approval. See Section 01 1300 Paragraph 1.2 – Submittals and Shop Drawings.

1.11 PROTECTION OF EXISTING UTILITIES AND IMPROVEMENTS

In addition to the general provisions:

The contractor shall protect from damage the utilities and all other existing improvements not provided for in the proposal or special provisions. The cost of labor, equipment and materials required to protect or replace said items shall be incorporated into the bid for this project.

The City has attempted to locate and show on the contract drawings the locations of the existing underground utilities which may conflict with portions of this work but cannot guarantee the accuracy or the completeness of the data shown.

1.12 CITY OCCUPANCY

The City reserves the right to use or to occupy any substantially completed part of the project, and to use equipment installed under the contract prior to the date of final acceptance. Such use of occupancy shall not constitute acceptance of the work, or any part thereof.

During construction, normal administrative operations will be ongoing at the GTCC. These areas

include the Security offices, West loading ramps and parking lot.

The Contractor shall coordinate with the GTCC while working in the Security offices. The City will make one half of this area available at a time for the Contractor to complete work in this area. The contractor will cooperate with the City to minimize conflict and to facilitate the City's operations. The contractor will schedule the work to accommodate this requirement.

1.13 SUPERINTENDENT

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, except those times when the contractor is demobilized. The superintendent shall be on site even when only a subcontractor is working, unless otherwise approved by the engineer. The superintendent shall be satisfactory to the contractor, and shall have full authority to act on their 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 redline "AS-BUILT" plans shall be available to the engineer at all times and shall be delivered to the engineer upon completion of the work.

The superintendent initially assigned to the project by the general contractor shall remain superintendent for the duration of the contract. If the superintendent is replaced, all work shall stop until an additional preconstruction meeting with the City is held. This work stoppage will be at the contractor's expense. The completion date shall remain unchanged, regardless of any work stoppage.

1.14 CLEAN UP

In addition to General Provisions:

A. DAILY

The contractor and the City inspector will walk the site daily and as required to determine the clean up and restoration required.

All areas shall be left safe, clean and free of debris.

Clean up is considered incidental to the project and no payment will be allowed.

Collect waste daily and when containers are full, legally dispose of waste off site.

Clean-up of any area impacted by the construction shall be done weekly or as directed/instructed by the engineer.

END OF SECTION



City of Tacoma

Request for Information (RFI)

(Form used by Contractor To Clarify Work Directed By City or By City
when Information Needed From Contractor)

Date: _____
Project Title: _____
Specification No: _____

ARCHITECT:

OWNER:

City of Tacoma
747 Market Street
Tacoma, WA 98402

CONTRACTOR:

SUBJECT:

☐ Architectural ☐ Civil ☐ Structural ☐ Mechanical ☐ Electrical ☐ Other

Request/Recommended Solution: _____

☐ Attachments

Date Required
for Response: _____

Initiated By: _____

General
Contractor: _____

Response: _____

☐ Attachments

Response Date: _____

Response By: _____

Firm: _____

City Approval:

The Owner (City of Tacoma) reviewed the foregoing request and finds the response to be in order.

Reviewed By: _____ Date: _____
(Project Manager)

Copies: ☐ Owner ☐ Consultants ☐ Contractor ☐ File ☐ _____ ☐ _____



City of Tacoma

Engineering Change Directive (ECD)

Date: _____

Project Title: _____

Contract No.: _____

Specification No: _____

Contractor Name: _____

Reference No.: _____
(RFI, etc.)

TITLE:

You are directed to make the following modification(s) in the scope of work of this contract.

☐ Sketch Attached ☐ Drawing Attached ☐ Additional Pages Included

This document becomes effective upon receipt by the contractor, with signature of a representative of the City. The contractor shall then commence with the modification(s) listed above. Signature by the contractor signifies agreement that the proposed modifications will not, may, or will result in a claim for changes in contract sum or time.

Signed By: _____
City of Tacoma

Signed by: _____
Contractor (Check box below)

Date: _____

Date: _____

This construction change directive: ☐ will not; ☐ may; ☐ will; result in a claim supported by filing of a Change Order Proposal prior to any extra work, but not later than seven (7) days.



City of Tacoma

Proposal Request (PR)

(This form shall be used by the City to request pricing on a possible change in plans or additional work. The PR may also be used to request credits for deletion or changes in scope of work.)

PR No.
(Numbered by City)

Project Title: _____ Date: _____

Contract No.: _____ Specification No: _____

ARCHITECT:

OWNER:

City of Tacoma
747 Market Street
Tacoma, WA 98402

CONTRACTOR:

Subject:

☐ Architectural ☐ Civil ☐ Structural ☐ Mechanical ☐ Electrical ☐ Other

Scope of Request:

Attachment Type: _____
(Supporting Documentation)

This is not a change order or a notice to proceed with the described work. Prior to any extra work the contractor shall submit a written Change Order Proposal (COP). See Section 01 1040, Contract Changes, of the specifications for this Contract.

Initiated By: _____ Representing: _____
(Name) (Company)

Cc:



City of Tacoma

Change Order Proposal (COP)

Project Title: _____ Date: _____

Contract No.: _____ Specification No: _____ COP No. _____
(Numbered by Contractor)

Contractor Name: _____ Reference No.: _____
(Proposal Request or Eng.)

Please submit a breakdown of the proposed costs for modification(s) to the contract sum and/or contract time associated with the proposed changes in the scope of work and to the contract documents described below.
This is not a change order or a notice to proceed with the work described below.

TITLE:

Scope of Change Order/Work:

(Attach City Proposal Request when applicable)

☐ Sketch Attached ☐ Drawing Attached ☐ Additional Pages Attached

Cost/Credit \$ _____

Submitted by:

Time Extension Request _____

Contractor

The change order includes all contractor(s) labor, material, overhead, profit and all direct and/or indirect costs associated with the change in scope of work.

☐ Approved ☐ Disapproved ☐ Resubmit

DIVISION 1 SPECIAL PROVISIONS

SECTION 01 1200 PERMITS AND FEES

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of Contract, including General Conditions and other Division-1 Specification sections, apply to work of this section.

1.2 PERMITS PAID FOR BY OWNER:

- A. The Owner has paid for the primary Building Permit (and its related plan check fee) as issued by the City of Tacoma outside of the contract. Do not include the cost of this permit in the bid. Note that the Owner has previously submitted the construction documents to the City of Tacoma for plan review. Contractor will attend permit acceptance meeting with the City of Tacoma and obtain final building permit.
- B. Make all final permit application(s) and advise Owner when permit is ready for payment, and notify Owner of all pertinent permit payment details so that payment can be made.

1.3 PERMITS PAID FOR BY CONTRACTOR:

- A. Contractor is responsible to acquire and pay for all other permits and fees required by all other agencies having jurisdiction.
- B. Contractor is responsible to acquire and pay for inspections required to obtain Manufacturer Certificate from Washington State Labor and Industries for the prefabricated Guard House. Include the cost of this permit in the bid. Certify that the product meets or exceeds specified requirements.

1.4 PERMIT RECORDS:

- A. Maintain notebook on site with copies of all permits and inspection reports. Include same in Maintenance and Operations Manuals furnished at conclusion of project.

1.5 UTILITY SERVICE CONNECTION FEES PAID FOR BY OWNER (PERMANENT):

- A. The Owner will pay directly for fees required for all permanent service connections to utilities (natural gas, electricity, water, sewer, telecommunications). Make all final connection application(s) required, advise Owner when connection fee is ready for payment, and notify Owner of all pertinent permit payment details so that payment can be made.

1.6 UTILITY SERVICE CONNECTION FEES PAID FOR BY CONTRACTOR (TEMPORARY):

- A. Pay for all utility service connection fees required by utility vendors that are required for temporary use during the course of construction.

END OF SECTION

**SECTION 01 1300
SUBMITTALS AND SHOP
DRAWINGS**

1.1 DOCUMENTS REQUIRED AT PRECONSTRUCTION MEETING

- A. Work Hazard Analysis Report.
- B. Construction Schedule as required in Section 01 1040 – Project Coordination.
- C. List of Subcontractors, including each subcontractor's address, telephone number, and contact person on this project.
- D. Name of Job Superintendent.
- E. List of Number and Names of Workers, Equipment List, and Working Site Layout or Requirements.
- F. List of Products.
- G. List of Principal Suppliers and Fabricators.
- H. SCHEDULE OF VALUES

See Section 01 1025 MEASUREMENT AND PAYMENT
- I. Health and Safety Plan

1.2 SUBMITTALS AND SHOP DRAWINGS DURING CONSTRUCTION

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. 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. Piece-mealing of submittals will not be accepted.

A. SUBMITTALS PROCEDURES

- 1. Submittal Requirements: Submit as specified under individual sections. Submittals not requested will not be recognized or processed.
- 2. Transmittal Form: Accompany each submittal with transmittal letter, in triplicate. Transmittal form will be supplied by the engineer.
- 3. Submittal Numbering: Sequentially number transmittal forms in order submitted. Add alphabetic suffix to original submittal number of re-submittals.
- 4. Submittal Identification: Include project, contractor, subcontractor or supplier, pertinent drawing and detail number, specification section number, manufacturer, fabrication, product, material, and, as appropriate
- 5. Contractor's Certification: Apply contractor's stamp, signed or initialed, certifying that review, verification or products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the contract documents.

6. Contractor shall review submittals for adequate installation interface for all work prior to submitting them to the City.
7. Schedule of Submittals: Deliver to engineer, promptly, to meet critical path, and lead times as required to expedite the project.
8. Turn-Around Time: Allow from time of receipt five (5) working days for each submittal and each re-submittal to be reviewed by the engineer.
9. Critical Issues: Prior to submittal, communicate with engineer reason for critical issue. Upon approval, allow five (5) working days turn-around time from time of receipt by engineer.
10. Coordination and Consolidation of Submittals: Submit related items, sections or trades under one (1) submittal package for each unit of work or system where possible.
11. Deviations on Submittals: Identify deviations, including products and systems, not conforming with contract documents.
12. Product and System Limitations: Indicate conditions which may be detrimental to successful performance or completion of work.
13. Substitutions to Specified Items: Submit for approval in accordance with Section 01 1300 Paragraph 1.3 "Or Equal" Clause or Substitution. Do not indicate or otherwise imply substitutions to specified items, except as approved.
14. Job Site Office Records: Maintain one (1) copy of every submittal, regardless of status, along with a current submittal log. Ensure that the most current, architect, and engineer stamped shop drawings and product data are distributed and subsequently used in connection with the work.
15. Re-Submittal Requirements: Revise initial submittal as directed and re-submit. Following procedures specified for the initial submittal. Make any corrections or changes in the submittals required by the engineer. Revise and make any further resubmittals until no exceptions are taken. Identify changes on re-submittal made since previous submittal.
16. Other Pertinent Submittals: Provide templates, inserts, and as applicable in timely fashion to other trades.

B. SCHEDULE OF SUBMITTALS

1. Within five (5) days of notice to proceed, prepare schedule of submittals for shop drawings, product data, samples, and as specified for each section. Update as requested by engineer.
2. List submittals sequentially by project manual table of contents section numbers and titles.
3. Show submittal preparation time, field measurements and verification time, date submitted to engineer, date due back from engineer, item order dates, and delivery dates.
4. Identify individual delivery, long lead times, and critical ordering deadlines. Include ordering dates for each item including individual parts of major submittals.
5. Indicate specified time allocated for review, turn around and distribution.
6. Identify decision dates for selection of colors and finishes not scheduled or otherwise approved.
7. Within five (5) days after notice to proceed, and in accordance with the conditions of the contract, submit list of major products proposed for use with name of manufacturer, tradesman, and model number of each product.
8. For products specified only by reference standards, give manufacturer, tradesman, model or catalog designation and reference standards.

C. SHOP DRAWINGS

1. Number and Format: Submit one (1) opaque reproductions when larger than 11-inches by 17-inches.
2. Submittal Procedure: Submit for engineer's review in accordance with submittal procedures specified in this section. After approved drawings are return, the contractor shall reproduce and distribute copies to subcontractors and other entities, as applicable. Maintain one (1) copy of each shop drawing at field office and one (1) for project record documents to be delivered to the engineer at project completion.
3. Maximum Sheet Size: 24-inches by 36-inches or other allowable sizes of

- 8-1/2-inches by 11-inches or 11-inches by 17-inches.
4. Identification: Reference shop drawing details same as reference on contract documents, including sheet and detail descriptions, schedules and room numbers. Indicate by whom materials, products, work, and installations are supplied, performed or installed. Do not use the expression "by others".
 5. Presentation: Hand drafted or computer generated, delineated to present information in a clear and thorough manner. Freehand sketches are not acceptable.
 6. Variations from Contract Documents due to Standard Shop Practices: Make transmittal outlining variation.
 7. Engineer Changes to Submittals which affect Contract Sum or Contract Time: Do not distribute to being work related to submittal. Notify engineer immediately.
 8. Mechanical and Electrical Utilities, Equipment and Appliance: Include electrical characteristics, connection requirements, rough-ins, location of outlets, wiring, piping diagrams, weight where significant, and as required to describe installation requirements.

D. PRODUCT DATA

1. Number of Copies: Submit two (2) copies to be retained by the engineer.
2. Submittal Procedures: Submit for engineer review in accordance with submittal procedures specified in this section. After review, distribute to subcontractors and other applicable entities. Maintain one (1) copy for project record documents to be delivered to engineer at project completion.
3. Identification: Mark each copy to identify specific products, models, options, tolerances, dimensions, and other pertinent data.
4. Manufacturer's Standard Data: Modify drawings and diagrams to delete inapplicable information. Supplement to provide pertinent information unique to project.
5. Mechanical and Electrical Utilities, Equipment, and Appliance: Where not shown by shop drawings, include electrical characteristics, connection requirements, rough-ins, location of outlets, wiring, piping diagrams, controls, weight where significant, and as required to describe installation requirements. Correct published product data to correlate with specific project requirements.

E. ELECTRONIC FILES OF MANUALS (FROM VENDORS):

1. Electronic manuals must be submitted in .PDF and compatible with the latest version of Adobe Professional.
2. Manuals should be scanned at 300 DPI.
3. Color originals should be scanned to color images if possible.
4. All .PDF files should be scanned at using Optical Character Recognition (OCR)
5. A manual must be submitted as a single .PDF file; addendums and attachments (may or may not include drawings) should not be submitted separately, or in different file formats.
6. Manuals that consist of multiple volumes should be submitted as individual files.
7. Manuals comprised of several sections or chapters should be bookmarked by the vendor.
8. If a vendor wished to include security settings (so that their documents are "readonly"), that is acceptable provided that the City can view and print from the file.

F. SAMPLES

1. Quantity or Number: Submit one (1) each to be retained by engineer, except as otherwise specified by individual specification sections. Submit additional as required by contractor for distribution.
2. Submittal Procedure: Submit for engineer's review in accordance with submittal procedures specified in this section. After review, distribute to applicable entities.
3. Size and Completeness: As specified by individual sections. When not specified, submit samples of sufficient size and completeness to clearly illustrate product.
4. Identification: Label each sample with project title and complete product identification, including manufacturer, model number, descriptive name, supplier, and as applicable to sample identification.
5. Functional Characteristics: Include parts, attachments, and components as applicable. Coordinate with interfacing work.
6. 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.

H. DESIGN DETAILS

All design details shall be submitted to the City by the contractor during the design phase for review and approval prior to commencing any construction. This includes designs, loads and computations on foundations, connections, columns, beams, and complete details of all structural members and structural connections. During this phase, the contractor shall be required to submit plans, calculations, and all required materials to the applicable authority to obtain all necessary permits for the project.

I. MANUFACTURER INSTRUCTIONS AND CERTIFICATES

Number: Submit one (1) copy of both the manufacturer instructions and certificates.

Content: Include manufacturer's printed instructions for delivery, storage, preparation, assembly, installation, start-up, adjusting, balancing, and finishing as specified for individual specification sections. Include special procedures, project conditions, and environmental criteria required for application or installation.

J. CODE COMPLIANCE CERTIFICATES

Submit information required as a condition of building permit issued by code authority.

1.3 "OR EQUAL" CLAUSE OR SUBSTITUTIONS

A. GENERAL

When the engineer approves a substitution, it is with the understanding that the contractor guarantees the substituted article to be equal to, or better than, the article specified. The engineer will judge the suitability, reliability, and service availability of a proposed substitute. To be considered by the engineer, the request for substitution shall be accompanied with complete physical and technical data, manufacturer's catalogue data, photographs, samples, and the address of the nearest authorized service representative, as applicable.

The decision of the engineer on "OR EQUALS" shall be final.

B. PRIOR TO BID OPENING

Substitution approvals will be considered prior to the bid opening if the bidder submits their request for substitution per the date on the substitution form prior to the date set for bid opening. All substitution requests shall be submitted using the "Substitution Request Form" included in the bid packet and shall be sent to the individual as noted at the top of the form. Substitution requests not received by the named individual will not be evaluated and not allowed as a substitution prior to bidding. Submit all requests and product data in triplicate.

Saturday, Sunday and holidays are excluded from the calculation of days. An addendum listing such approvals may/will be issued prior to bidding.

Bidders who do not receive prior written approvals of "OR EQUAL" prior to bid submittal date must base their bids on the items specified.

C. AFTER BID OPENING

Proposed substitution and deviation requests shall be reviewed during the time of submittal review.

Substitution and deviation requests will be received and considered only when one or more of following conditions are satisfied:

1. The specified product or method of construction cannot be provided within the contract period and the contractor submittal is submitted within time frame allowed.

2. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
3. The specified product or method of construction cannot be provided in a manner that is compatible with other materials.
4. A substantial advantage is offered to the Owner, in terms of cost, time, or other considerations of merit.
5. The product as specified includes the statement, "or equal" and one of the above conditions governs.
6. The engineer's decision on all substitution or deviation requests shall be final.

END OF SECTION

SUBMITTAL TRANSMITTAL FORM

Convention Center Guard House
Project Number PAF-00035-01
Specification No. PW19-0390F

ATTN: Construction Division

Date: _____

Submittal Number _____

Specification Number _____

Bid Item No. _____

Submittal Description

We are sending you:

Copies	Date	Page	Description

Transmitted: ☐ Submittals (Product Data) for information only.
☐ Submittals for review and comment.

Remarks: _____

Certify Either A or B:

- ☐ A. This document has been detail-checked for accuracy of content and for compliance with the contract documents **(no exceptions)**. The information contained herein has been fully coordinated with all involved Subcontractors.
- ☐ B. This document has been detail-checked for accuracy of content and for compliance with the contract documents **except for the attached deviations**. The information contained herein has been fully coordinated with all involved Subcontractors.

Certified By: _____
Signature

SECTION 01 1400 QUALITY CONTROL

1.1 REFERENCE STANDARDS

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 time of opening of bids (or on the effective date of the agreement if there were no bids), except as may be otherwise specifically stated. However, no provision of any referenced standard, specification, manual, or code (whether or not specifically incorporated by reference in the contract documents) shall be effective to change the duties and responsibilities of City, contractor, or engineer, or employees from those set forth in the contract documents.

1.2 INSPECTION, TESTING AND CERTIFICATION

A. INSPECTION

Construction inspection and testing for the City will be performed as the City may designate and as the construction situation may dictate. The City inspector will be responsible for insuring that the contractor is complying with the contract plans and specifications.

1. The City will prepare a construction inspection checklist to be presented to the contractor at the preconstruction meeting. The checklist will include all inspections typically required by local, city and county officials as well as other items as deemed important by the engineer.
2. The contractor shall be required to contact the City 24 hours in advance of all of the construction activities listed on the checklist, have the indicated activity inspected, and the City's inspector initial that the work was performed in accordance with the appropriate technical provision.
3. The checklist shall be posted near each structure and be available for review by the City at all times. These inspections shall be in addition to any required inspections by state or local jurisdictions. The City will prepare a suitable checklist for each building to be constructed and present same to the contractor at the preconstruction meeting.
4. Pre-final Inspection: Contractor shall notify the engineer in writing when all work or portions of work are complete and ready for inspection. The engineer will make a "punch list" and forward the results of same to the contractor who shall promptly correct any deficiencies noted.
5. Final Inspection: Contractor shall notify the engineer in writing when all punch list deficiencies have been completed. The engineer will promptly set a time for final inspection at which time the engineer and contractor shall jointly inspect the work.

B. LABORATORY SERVICES

1. Testing for quality control certification or special inspections as required by the permitting authority will be conducted by 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.
2. 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.
3. It shall be the contractor's responsibility to prepare test specimens as required for special inspection as required by the permitting authority or the engineer and the cost shall be incidental to the contract.

C. PERMIT INSPECTIONS

The contractor shall comply with the requirements of all permits. It shall be the contractor's responsibility to contact the permitting authority and schedule all required inspections. The contractor shall notify the City inspector of all scheduled inspections.

D. QUALITY ASSURANCE – CONTROL OF INSTALLATION

1. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship to produce Work of specified quality.
2. Comply with manufacturers' instructions, including each step in sequence.
3. Should manufacturers' instructions conflict with Contract Documents, request clarification from engineer before proceeding.
4. 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.
5. Perform Work by persons qualified to produce required and specified quality.
6. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
7. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

E. TOLERANCES

1. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
2. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from engineer before proceeding.
3. Adjust products to appropriate dimensions; position before securing products in place.

F. MOCK-UP

1. Tests will be performed under provisions identified in this Section and identified in the respective product specification sections.
2. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
3. Accepted mock-ups shall be a comparison standard for the remaining Work.
4. Where mock-up has been accepted by engineer and is specified in product specification sections to be removed, remove mock-up and clear area when directed to do so.

G. MANUFACTURERS' FIELD SERVICES

1. 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, start-up of equipment, test, adjust, and balance of equipment, and to initiate instructions when necessary.
2. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

END OF SECTION

**SECTION 01 1500
CONSTRUCTION FACILITIES AND
TEMPORARY CONTROLS**

1.1 UTILITIES

A. ELECTRIC SERVICE

The City will furnish without charge to the contractor 120-volt single phase power at the GTCC or at a location specified by the engineer for the contractor's use. The contractor will furnish and maintain all necessary extension cords and adapters in accordance with the applicable rules and regulations. No metering will be required.

B. TELEPHONE SERVICE

The City will not provide telephone service for the contractor. Mobile telephone service is available at the site.

C. WATER

The City will furnish water for use by the contractor at a location specified by the City engineer. The contractor shall furnish all hoses and connectors as necessary to extend water to the job site.

D. SANITARY FACILITIES

The contractor can use designated rest rooms available within the GTCC. Coordinate use of these rest rooms with the engineer to ensure they are kept clean. Should the contractor fail to maintain the rest rooms, the contractor will be required to furnish sanicans at their own expense.

E. TEMPORARY FIRE PROTECTION

Provide temporary fire protection until permanent systems supply fire protection needs.

1. Provide adequate numbers and types of fire extinguishers
2. Store combustible materials in fire-safe containers in fire-safe locations
3. Prohibit smoking in hazardous fire-exposure locations
4. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition.

F. PARKING

The City will provide three (3) designated parking spots at the GTCC Parking Lot adjacent to the jobsite. The location of the parking spots will be at the direction of the GTCC Operations Manager. The contractor is responsible for providing parking for its crews and subcontractors offsite.

1.2 JOB SHACK

A. JOB SHACK

The City will **NOT** provide space on site for a Job Shack. The City will provide a space for all project meetings within the GTCC. The contractor shall provide a space to keep "AS-BUILT" plans and provide access to City inspectors and engineers as required.

The contractor shall keep on the job site a full size copy of the drawings and specifications, and shall at all times give the engineer access thereto.

B. STORAGE AND LAYDOWN AREA

An area will be made available by the owner for material storage on site. This area will be made available for inspection prior to submittal of bids. This material storage area will be required to be used for storage of all construction material with lead time requirements that is required to be on hand at start of construction. Any modification of the storage area for the convenience of the contractor shall be at the contractor's expense and shall be pre-approved by the engineer. Contractor may use an alternate area for storage of lead time material providing it is at the contractor's expense and available to the engineer for inspection to verify availability.

1.3 SECURITY AND ACCESS

A. GENERAL

This section includes

1. Security program
2. Entry control
3. Restriction and operational control

B. SECURITY PROGRAM

Contractor shall comply with GTCC's security policies and procedures and take adequate precaution to protect GTCC's property and employees.

C. ENTRY CONTROL

1. All contractor's personnel and materials shall enter the site through the 24 hr. security entrance on Market Street.
2. Contractor shall maintain and submit a current list of contractor and subcontractor personnel available for on-site inspection.

D. RESTRICTIONS AND OPERATIONAL CONTROL

1. Contractor Operations: 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.
2. Emergency Site Access during Construction: Fire lanes must remain open during construction.

1.4 SAFETY

The contractor shall submit:

A. HEALTH AND SAFETY PLAN

This project has been deemed to be an essential project by the City of Tacoma and it is anticipated that the contract will be operational during the COVID-19 outbreak. Therefore, the contractor shall submit a health and safety plan describing how the contractor will complete the work while combating the COVID-19 spread (social distancing practices) and what Person Protective Equipment (PPE) will be in place.

B. WORK HAZARD ANALYSIS

The contractor and their subcontractors shall thoroughly review the scope of work of the proposed project. The contractor will be responsible to indicate a work hazard analysis on the form of "Contractor's Work Hazard Analysis Report" attached with the proposal; i.e., any known or potential safety issues or phases of construction that may require specific safety procedures as identified by WISHA or OSHA regulations, and/or prudent construction practices; i.e., shoring, fall protection, scaffolding, hazardous materials, asbestos removal, etc.

This report shall be completed and submitted to the engineer before the preconstruction conference. A copy of this report will be forwarded to the City Safety Officer for review. A copy of this report shall be maintained at the work site (accessible to the supervisor).

The City will review the submitted report and may require the contractor to clarify their safety procedures submitted or detail their procedures for ensuring safe working conditions for other working conditions not listed in the original submitted report; and/or explain how the procedures meet current safety regulations. In no case, may the contractor commence work until the Job Hazard Analysis Report has been reviewed and approved by the engineer.

1.5 PROTECTION OF ADJACENT AREAS DURING CONSTRUCTION

The contractor shall take any measures, including but not limited to the ones listed below, to protect adjacent areas from the effects of construction.

Other work and barrier requirements as directed by the engineer to provide separation between the contractor's work area and ongoing GTCC operations.

The contractor shall take any measures, including but not limited to the ones listed below, to protect adjacent areas and quadrants from the effects of construction.

1.6 PROTECTION OF ADJACENT AREAS DURING CONSTRUCTION

The contractor shall take reasonable measures to prevent unnecessary dust. Earth surfaces subject to dusting shall be kept moist with water or by application of a chemical dust suppressant. Dusty materials in piles or in transit shall be covered when practicable to prevent blowing.

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.

1.7 POLLUTION CONTROL

Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers.

No sediment, debris, or other substances will be permitted to enter sanitary sewers and reasonable measures will be taken to prevent such materials from entering any drain or watercourse.

The contractor shall maintain oil absorption pads in the actual job site whenever any equipment is present to immediately catch and contain any oil and/or fuel leaks.

Nothing in this specification or contract shall be deemed to warrant to the contractor the quality, quantity or usefulness of the property designated for demolition, not designated as salvage, or designated to become the property of the contractor.

END OF SECTION

SECTION 01 1600 MATERIAL AND EQUIPMENT

1.1 QUALITY OF WORKMANSHIP

A. WORKMANSHIP

The contractor shall employ only competent, skillful, and orderly persons to do the work. If, in the engineer's opinion, a person is incompetent, disorderly or otherwise unsatisfactory, the engineer shall notify the contractor, in writing, of same. The contractor shall immediately discharge such personnel from the work and shall not again employ those person(s) on said contract again. Work shall conform to the highest industry standards.

B. MATERIALS

Materials shall be delivered to the project site in the manufacturer's original containers, bundles or packages unopened with the seals unbroken and the labels intact. Each type of material shall be of the same make and quality throughout. Manufactured articles, materials and equipment shall be installed in accordance with each manufacturer's written directions, unless otherwise specified.

All materials and equipment to be provided under this contract shall conform to the latest edition of the applicable codes, but in no case shall be contrary to the laws of the State of Washington and/or Federal Government.

The equipment supplied shall meet appropriate ANSI, OSHA, WISHA, and all Federal, state, and local standards for the type of equipment provided for its intended use.

Deliver, store and handle products according to manufacturer's written instructions, using means and methods that will prevent damage, deterioration, and loss, including theft.

1. Schedule delivery to minimize long-term storage and to prevent overcrowding construction spaces.
2. Deliver with labels and written instructions for handling, storing, protecting, and installing.
3. Inspect products at time of delivery for compliance with the contract documents and
4. to ensure items are undamaged and properly protected.
5. Store heavy items in a manner that will not endanger supporting construction.
6. Store products subject to damage on platforms or pallets, under cover in a weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required.
7. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
8. Provide [bonded] off-site storage and protection when sited does not permit on-site storage or protection.
9. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.2 SALVAGEABLE AND NONSALVAGEABLE MATERIAL

A. PROPERTY OF CONTRACTOR

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.

Materials deemed to be non-salvageable by the engineer's representative shall be disposed by the contractor to a legal dump site obtain by him. All costs to dispose of non-salvageable materials shall be the contractor's responsibility.

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

**SECTION 01 7329
CUTTING AND
PATCHING**

1.1 SUBMITTALS

A. Submit written request in advance of cutting or alteration which affects:

1. Structural integrity of any element of Project.
2. Integrity of weather exposed or moisture resistant element.
3. Efficiency, maintenance, or safety of any operational element.
4. Visual qualities of sight exposed elements.
5. Work of Owner or separate contractor.

B. Include in Request:

1. Identification of Project.
2. Location and description of affected Work.
3. Necessity for cutting or alteration.
4. Description of proposed Work and products to be used.
5. Alternatives to cutting and patching.
6. Effect on work of Owner or separate contractor.
7. Written permission of affected separate contractor.
8. Date and time Work will be executed.

2.1 MATERIALS

A. Primary Products: Those required for original installation.

B. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 1300 Submittals and Shop Drawings.

3.1 EXAMINATION

A. Examine existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching.

B. After uncovering existing Work, assess conditions affecting performance of Work.

C. Beginning of cutting or patching means acceptance of existing conditions.

3.2 PREPARATION

A. Provide temporary supports to ensure structural integrity of the Work. Provide devices and methods to protect other portions of Project from damage.

B. Provide protection from elements for areas which may be exposed by uncovering work.

C. Maintain excavations free of water.

3.3 CUTTING

A. Execute cutting and fitting including excavation and fill to complete the Work.

B. Uncover work to install improperly sequenced work.

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- C. Remove and replace defective or non-conforming work.
- D. Remove samples of installed work for testing.
- E. Provide openings in the Work for penetration of mechanical and electrical work.
- F. Employ original or skilled and experienced installer to perform cutting for weather exposed and moisture-resistant elements and sight-exposed surfaces.
- G. Cut rigid

3.4 PATCHING

- A. Execute patching to complement adjacent Work.
- B. Fit products together to integrate with other Work.
- C. Execute Work by methods to avoid damage to other Work, and which will provide appropriate surfaces to receive patching and finishing.
- D. Employ original installer to perform patching for weather exposed and moisture resistant elements, and sight-exposed surfaces.
- E. Restore Work with new products in accordance with requirements of Contract Documents.
- F. Fit Work to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. At penetrations of fire rated walls, partitions, ceiling, or floor construction completely seal voids with fire rated material to full thickness of the penetrated element.
- H. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

END OF SECTION

**SECTION 01 7700
CONTRACT CLOSEOUT**

1.1 DOCUMENTS REQUIRED UPON COMPLETION OF WORK

A. CLOSE OUT PROCEDURES

The contractor shall notify the engineer in writing when identified tasks are complete and ready for inspection. The engineer will make the inspection, forward the results of same to the contractor, who shall promptly correct any deficiencies noted.

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

It is possible that other contractors or the City will be working in the project area during the time of construction. It shall be the responsibility of this contractor to coordinate their work with all other agencies and/or contractors within the project area.

B. ADJUSTMENTING

Adjust operating products and equipment to ensure smooth and unhindered operation.

C. FINAL DOCUMENTATION

Upon completion of the work and before final payment is made, the contractor shall deliver to the engineer, in addition to such other items specified in these specifications, the following documents:

1. "AS-BUILT" Drawings

"AS-BUILT" drawings and specifications of new or revised existing work, shown in red ink, provided by the general, mechanical, electrical contractors, and all other subcontractors, including all addendum's, change orders, deviations, changes, elevations, and dimensions of their work from the construction documents, updated monthly during the construction. Monthly payments will not be made until all redlined as-builts are updated.

Two (2) copies of all shop and construction drawings used for the project, the final record drawings ("AS-BUILT" to reflect the actual installation) including one (1) reproducible set of all design drawings and AutoCAD files, if applicable.

NOTE: The final payment for this contract will not be released until "AS-BUILT" drawings are received and approved by the engineer.

2. Project Record Documents

- a. Operation and Maintenance instructions arranged by system and subdivided by specification section.
- b. Shop drawings, product data, reports, certificates, original of warranties and bonds.

3. Spare Parts and Maintenance Products

- a. Provide spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- b. Deliver to Project site and place in location as directed by Owner; obtain receipt from Owner.

4. Warranties and Bonds

- a. Provide duplicate notarized copies.
- b. Execute and assemble transferable warranty documents from subcontractors, suppliers and manufacturers.
- c. Provide Table of Contents and assemble in three D side rind binder with durable plastic cover.

- d. Submit prior to final Application for Payment
- e. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within ten (10) days after acceptance, listing date of acceptance as start of warranty period.

5. Re-Review Fees

- a. Engineer will do a Substantial Completion Inspection and a Final Inspection. Re- Inspections after the Final Inspection, due to Contractor failure to correct deficient work, will require the deduction of an amount for Engineer compensation from the final payment to the Contractor.

6. Final Adjustment of Accounts

- a. Submit final adjusted pay application to Engineer.
- b. Submit all closeout documents to Engineer for review and acceptance prior to Final Pay Application

D. FINAL CLEANUP

- 1. After all trades have completed their work, and just prior to occupancy, the general contractor shall:
- 2. Replace and remove any broken glass. Remove excess glazing compounds or seals.
- 3. Removal of all temporary facilities and contractor equipment.
- 4. Remove labels that are not permanent.
- 5. Clean the site.
 - a. Sweep paved areas and walkways. Remove stains, spills, and foreign deposits.
 - b. All surfaces disturbed shall be restored to a condition equal to that 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 engineer.
 - d. Clean up is considered incidental to the project and no measurement and payment will be allowed.
 - e. Obtain final inspections from authorities having jurisdiction.

END OF SECTION

DIVISION 2 - EXISTING CONDITIONS

SECTION 02 41 00 DEMOLITION

PART 1 - GENERAL

1.01 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for demolition work and disposal of debris.
- B. Obtain required permits from authorities.
- C. Conform to applicable regulatory procedures when discovering hazardous or contaminated materials.
- D. Coordinate disruption of Building Utility, Fire or Life Safety systems with Owner ten (10) days prior to disruption.

1.02 SCHEDULING

- A. Schedule Work to coincide with new construction.
- B. Coordinate Work with relocation of utilities and other items noted.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect existing landscaping materials.
- B. Construct and maintain weatherproof closures for existing openings.
- C. Protect existing material, structure and finishes that are not to be demolished.

3.02 DEMOLITION REQUIREMENTS

- A. The general scope of demolition work shall include:
 - 1. Demolition and removal of all items required to accommodate new work.

2. Relocation of piping, conduit, wiring, cabling and other items noted, including temporary utility shut down and re-connection. Core drill through foundation walls for conduit and piping.

3.03 DEMOLITION

- A. Demolish in an orderly and careful fashion. Protect existing building components, finishes, materials, and equipment not to be demolished.
- B. Remove demolished materials from site. Deposit material at approved dumping sites. Do not bury or burn material on site.
- C. Demolition of existing work/items shall include removal of all connections and fasteners, blocking, etc. associated with the work or item to be demolished.

3.04 RELOCATION

- A. Coordinate new locations of items noted with Owner's representatives.

END OF SECTION

DIVISION 3 - CONCRETE

SECTION 03 11 00 CONCRETE FORMING

PART 1 - GENERAL

1.01 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings.
- B. ACI 318 - Building Code Requirements for Reinforced Concrete.
- C. ACI 347 - Recommended Practice For Concrete Formwork.
- D. ASME A17.1 - Safety Code for Elevators, Dumbwaiters, Escalators, and Moving Walks.
- E. PS 1 - Construction and Industrial Plywood.

1.02 DESIGN REQUIREMENTS

- A. Design, engineer and construct formwork, shoring, and bracing to conform to design and code requirements; resultant concrete to conform to required shape, line and dimension.

1.03 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 347.
- B. Design formwork under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State of Washington.

1.04 REGULATORY REQUIREMENTS

- A. Conform to International Building Code and Local Building Department requirements for design, fabrication, erection, and removal of formwork.

1.05 DELIVERY, STORAGE, AND PROTECTION

- A. Section 01600 Material and Equipment: Transport, handle, store, and protect products.
- B. Deliver void forms and installation instructions in manufacturer's packaging.
- C. Store off ground in ventilated and protected manner to prevent deterioration from moisture.

PART 2 - PRODUCTS

2.01 **WOOD FORM MATERIALS**

- A. Conform to ACI 347.
- B. Form Panels: For concrete exposed to view use HDO plywood with high-density phenolic overlay, Simpson Timber Company "Multipour HDO". Form panels for all other concrete shall be B-B Grade form plywood.

2.02 **FORMWORK ACCESSORIES**

- A. Form Ties: Provide snap-off metal form ties, designed to prevent form deflection, and to prevent spalling concrete surfaces upon removal. The portion of tie remaining within concrete after removal of exterior parts shall be recessed 3/4 inch from the outer concrete surface and will not leave a hole larger than 1 inch diameter in the concrete surface. Form ties shall be manufactured items with stress value published.
- B. Form Release Agent: Colorless mineral oil that will not stain concrete or absorb moisture, or form release agent compatible with form liner materials.

PART 3 - EXECUTION

3.01 **EXAMINATION**

- A. Verify lines, levels, and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

3.02 **EARTH FORMS**

- A. Hand trim sides and bottom of earth forms. Remove loose soil prior to placing concrete.

3.03 **ERECTION - FORMWORK**

- A. Erect formwork, shoring, and bracing to achieve design requirements in accordance with requirements of ACI 301.
- B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.
- C. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.
- D. Align joints and make watertight. Keep form joints to a minimum.
- E. Obtain approval before framing openings in structural members that are not indicated on drawings.
- F. Provide 3/4 inch chamfer at all external corners.
- G. Coordinate this Section with other sections of work that require attachment of components to

formwork.

- H. If formwork is placed after reinforcement resulting in insufficient concrete cover over reinforcement before proceeding, request instructions from Architect / Engineer.

3.04 APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
- C. Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.

3.05 INSERTS, EMBEDDED PARTS, AND OPENINGS

- A. Provide formed openings where required for items to be embedded in passing through concrete work.
- B. Locate and set in place items that will be cast directly into concrete.
- C. Coordinate with work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other Work.
- D. Install accessories in accordance with manufacturer's instructions, straight, level, and plumb. Ensure items are not disturbed during concrete placement.
- E. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection. Locate openings at bottom of forms to allow flushing water to drain.
- F. Close temporary openings with tight fitting panels, flush with inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

3.06 FORM CLEANING

- A. Clean forms as erection proceeds, to remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.
- C. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.
- D. During cold weather, remove ice and snow from within forms. Do not use de-icing salts. Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure. Use compressed air or other means to remove foreign matter.

3.07 FORMWORK TOLERANCES

- A. Construct formwork to maintain tolerances required by ACI 301.

3.08 FIELD QUALITY CONTROL

- A. Section 01400 - Quality Control: Field inspection and testing.
- B. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and that supports, fastenings, wedges, ties, and items are secure.

3.09 FORM REMOVAL

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.
- B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
- C. Store removed forms in manner that surfaces to be in contact with fresh concrete will not be damaged. Discard damaged forms.

END OF SECTION

**SECTION 03 20 00
CONCRETE REINFORCING**

PART 1 - GENERAL

1.01 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings.
- B. ACI 315 - Details and Detailing of Concrete Reinforcement.
- C. ACI 318 - Building Code Requirements for Structural Concrete.
- D. ACI SP-66 - American Concrete Institute - Detailing Manual.
- E. ASTM A82 - Cold Drawn Steel Wire for Concrete Reinforcement.
- F. ASTM A185 - Welded Steel Wire Fabric for Concrete Reinforcement.
- G. AWS D1.4 - Structural Welding Code for Reinforcing Steel.
- H. AWS D12.1 - Welding Reinforcement Steel, Metal Inserts and Connections in Reinforced Concrete Construction.
- I. CRSI - Concrete Reinforcing Steel Institute - Manual of Practice.
- J. CRSI 63 - Recommended Practice For Placing Reinforcing Bars.
- K. CRSI 65 - Recommended Practice For Placing Bar Supports, Specifications and Nomenclature.
- L. IBC - International Building Code.
- M. Structural General Notes on Structural Drawings.

1.02 SUBMITTALS

- A. Section 01300 Submittals and Shop Drawings: Procedures for submittals.
- B. Shop Drawings: Indicate bar sizes, spacing, locations, and quantities of reinforcing steel and wire fabric, bending and cutting schedules, supporting and spacing devices and other arrangements and assemblies as required for fabrication and placement of reinforcement for all cast-in-place concrete work.

1.03 QUALITY ASSURANCE

- A. Codes and Standards: Comply with provisions of references listed in Paragraph 1.01 (above), except where more stringent requirements are shown or specified. Refer also to Structural General Notes on Structural Drawings.

1.04 REGULATORY REQUIREMENTS

- A. Conform to International Building Code and Local Building Department requirements for testing, inspection, etc. during construction.

PART 2 - PRODUCTS

2.01 REINFORCEMENT

- A. Reinforcing Steel: Refer to Structural General Notes on Structural Drawings.
 - 1. Galvanized bars shall conform to ASTM A787.
 - 2. Epoxy coated bars shall conform to ASTM A775.
- B. Welded Steel Wire Fabric: Refer to Structural General Notes on Structural Drawings.
- C. Synthetic Fiber Reinforcement: Refer to Structural General Notes on Structural Drawings.

2.02 ACCESSORIES

- A. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapor barrier puncture.
- B. Special Chairs, Bolsters, Bar Supports, Spacers Adjacent to Weather Exposed Concrete Surfaces: Plastic coated steel type; size, and shape as required.

2.03 FABRICATION

- A. Fabricate concrete reinforcing in accordance with CRSI Manual of Practice.
- B. Detail and fabricate in accordance to ACI 315 and ACI 318.
- C. Fabrication: Conform with CRSI. Provide all bars in longest lengths available or required; conform to sizes, shapes, and dimensions shown on Structural Drawings.

PART 3 - EXECUTION

3.01 PLACEMENT (REINFORCING STEEL)

- A. Place in accordance with CRSI. Place, support and secure reinforcement against displacement. Do not deviate from required position.
- B. Place in accordance to ACI 315 and ACI 318.
- C. Galvanized bars should be handled carefully, avoiding damage to the coating, in the event

that the coating incurs damage, field repairs may be done with a cold applied zinc galvanizing paint having a minimum of 65% zinc dust in the dry film.

- D. Epoxy coated bars should be handled carefully, avoiding damage to the coating, in the event that the coating incurs minor chips or cracks, field repairs may be done with two-part epoxy.
- E. Do not displace or damage vapor barrier.
- F. Accommodate placement of formed openings.
- G. Unless shown otherwise, maintain minimum 3/4-inch space between all formwork and reinforcement, tie wires, etc.
- H. Provide concrete cover over reinforcement as follows; unless noted otherwise:
 - 1. Concrete cast against Earth: 3 inches.
 - 2. Concrete exposed to Weather or Earth: 2 inches.
 - 3. Ties on Beams and Columns: 1-1/2 inches.
 - 4. Walls and Slabs not exposed to Weather: 3/4 inch.

END OF SECTION

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

PART 1 - GENERAL

1.01 REFERENCES

- A. ACI 117 – Tolerances for Concrete Construction and Materials
- B. ACI 301 – Structural Concrete for Buildings.
- C. ACI 302 – Guide for Concrete Floor and Slab Construction.
- D. ACI 303R – Guide to Cast-In-Place Architectural Concrete Practice.
- E. ACI 304 – Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete.
- F. ACI 305R – Hot Weather Concreting.
- G. ACI 306R – Cold Weather Concreting.
- H. ACI 308 – Standard Practice for Curing Concrete.
- I. ACI 315 – Details and Detailing of Concrete Reinforcement.
- J. ACI 318 – Building Code Requirements for Structural Concrete.
- K. ASTM E 1643 – Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs
- L. ASTM E 1745 – Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs
- M. IBC – International Building Code.
- N. Structural General Notes on Drawings.

1.02 REGULATORY REQUIREMENTS

- A. Conform to International Building Code and local Building Department requirements for testing, inspection, etc. during construction.

1.03 TESTS

- A. Testing and analysis of concrete will be performed under provisions of Section 01400.
- B. Provide copy of concrete mix design submittal for each class of concrete to Testing Lab ten (10) days prior to commencement of work.

1.04 SUBMITTALS FOR REVIEW

- A. Section 01300 Submittals and Shop Drawings: Procedures for submittals.
- B. Product Data: Provide data on joint devices, attachment accessories, admixtures and finishes products.

1.05 QUALITY ASSURANCE

- A. Quality Control: Conform to requirements of Section 01400 Quality Control.
- B. Codes and Standards: Comply with provisions of references listed in Paragraph 1.01 (above), except where more stringent requirements are shown or specified. Refer also to Structural General Notes on Structural Drawings.
- C. Concrete and Formwork: Performed by company experienced for five (5) years (minimum) in construction of top quality, site cast concrete work, familiar with and capable of producing concrete work in accordance with referenced standards listed in Paragraph 1.01 (above) and these specifications and drawings.
- D. Architectural Concrete: Perform Work in accordance with ACI 301 and ACI 303R.

1.06 COLORS

- A. Colors are specified on the Colors and Materials Schedule on drawings.

PART 2 - PRODUCTS

2.01 CONCRETE MATERIALS AND MIX

- A. Concrete: Refer to Structural General Notes on Structural Drawings.

2.02 CONCRETE REINFORCING

- A. Concrete Reinforcing: Refer to Section 03 20 00 Concrete Reinforcing.

2.03 ADMIXTURES

- A. Admixtures: Only upon Structural Engineer's approval.
- B. Air Entertainment Admixture: ASTM C260 at all exterior concrete.

2.04 ACCESSORIES

- A. Bonding Agent: 100% acrylic emulsion; manufactured by the Burke Company or approved. Use for all plug or patch work on cured concrete to increase bond strength.

- B. Non-Shrink Grout (Non-Structural): Premixed compound consisting of non-metallic aggregate, cement, water reducing, and plasticizing agents, capable of 4500 PSI at seven (7) days.
- C. Non-Shrink Grout (Structural): See Structural General Notes on Structural Drawings.

2.05 JOINT DEVICES AND FILLER MATERIALS

- A. Joints: Refer to Structural General Notes and Details on Structural Drawings.
- B. Joint Filler: ASTM D994; asphalt impregnated fiberboard or felt, 1/4 inch thick; full depth of slab.

2.06 CURING MATERIALS

- A. Water: Clean and drinkable.
- B. Curing Membrane: White 4 mil polyethylene film or a combination sheet plastic and paper, 20 ft minimum roll width.
- C. Concrete Curing Compound: A transparent curing, sealing, and dust proofing compound for interior and exterior concrete.
 - 1. No oils, saponifiable resins waxes or chlorinated rubbers.
 - 2. Coordinate work with 07 92 00 - Sealants.
 - 3. Apply to concrete as recommended by manufacturer's product data. Verify compatibility with flooring adhesives where floor covering is scheduled.
- D. Absorptive Mat: Burlap-polyethylene minimum 8 oz./sq yd., bonded to prevent separation during use.

2.07 CONCRETE SEALER

- A. Manufacturers:
 - 1. W.R. Meadows, Inc.: VOCOMP-20.
 - 2. Edoco: Burke, "Spartan-Cote WB II 20%".
 - 3. Degussa Building Systems: Sonneborn, "Kure-N-Seal W".
 - 4. OR approved.
- B. Sealers shall be non-yellowing, clear, penetrating, non-flammable, odorless, low VOC, water-based conforming to ASTM C309, Type 1, Class B. Acrylic polymer minimum 20% solids by resins weight.

2.08 CONCRETE REPAIR MORTAR

- A. Manufacturers:

1. W.R. Meadows
 2. BASF: MasterEmaco
 3. Mapei
- B. Concrete Repair Mortar:

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify requirements for concrete cover over reinforcement.
- B. Verify that anchors, seats, plates, reinforcement, and other items to be cast into concrete are accurately placed, positioned securely, and will not cause hardship in placing concrete.

3.02 PREPARATION

- A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
- B. In locations where new concrete is dowelled to existing work, drill holes in existing concrete, insert steel dowels, and pack solid with non-shrink grout.
- C. Coordinate the placement of joint devices with erection of concrete formwork and placement of form accessories.
- D. Vapor Retarder: Place vapor retarder in accordance with manufacturer's recommendations and ASTM E 1643. Ensure all penetrations and seams are sealed and defects repaired.
- E. Responsibility: Contractor is responsible for correcting at his own expense, any moisture related floor-coating failures due to improper installation and protection of vapor barrier.
- F. Embedded Items:
 1. No aluminum items shall be embedded in any concrete.
 2. All embed plates shall be securely fastened in place.
 3. All embedded steel items exposed to earth shall be galvanized.
 4. Embedded conduit is not permitted in concrete slabs on metal deck unless specifically noted on the structural drawings.

3.03 NOTIFICATION PRIOR TO PLACING CONCRETE

- A. Notify Architect/Engineer minimum twenty-four (24) hours prior to commencement of concreting operations.

- B. Notify Owner's testing lab prior to concrete placement and coordinate their field inspections.
- C. Notify Building Department in accordance with their requirements prior to concrete placement.

3.04 PLACING CONCRETE

- A. Place concrete in conformance with ACI 304. Conform to ACI 305R for hot weather concreting and ACI 306R for cold weather concreting. Conform to ACI 303R for Architectural concreting.
- B. Notify Architect/Engineer minimum twenty-four (24) hours prior to commencement of operations.
- C. Ensure reinforcement, inserts, embedded parts, formed expansion and contraction joints, are not distributed during concrete placement.
- D. Place joint filler in pattern placement sequence. Set top to required elevations. Secure to resist movement by wet concrete.
- E. Extend joint filler from bottom of slab to within 1/8 inch of finished slab surface.
- F. Install joint devices in accordance with manufacturer's instructions.
- G. Install construction joint devices in coordination with pattern placement sequence. Set top to required elevations. Secure to resist movement by wet concrete.
- H. Install joint device anchors. Maintain correct position to allow joint cover to be flush with floor and wall finish.
- I. Install joint covers in longest practical length, when adjacent construction activity is complete.
- J. Place concrete continuously between predetermined expansion, control, and construction joints.
- K. Do not interrupt successive placement; do not permit cold joints to occur.
- L. Saw cut joints within twenty-four (24) hours after placing. Use 3/16 inch thick blade, cut into 1/4 depth of slab thickness.

3.05 CONCRETE FINISHING

- A. Finish concrete floor surfaces in accordance with ACI 301.
- B. Wood float surfaces that will receive tile flooring with full bed setting system.
- C. Steel trowel surfaces that will receive carpeting, resilient flooring, or seamless flooring.
- D. Steel trowel surfaces that are scheduled to be exposed.

3.06 TOLERANCES

- A. Floor slab surfaces shall be finished to meet a floor surface classification of "flat" in accordance with ACI 117.
- B. Finished Floor Slab: Surfaces that do not meet the required tolerance shall be corrected by localized grinding of high spots or by a concrete topping / cementitious underlayment to fill low areas.

3.07 CURING AND PROTECTION

- A. Cure floor surfaces in accordance with ACI 308.
- B. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- C. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

3.08 CONCRETE SEALER

- A. Prior to installation of sealer, check and repair any defects in the slab surface. Grind high spots and cut out and re-pour low spots.
- B. Clean existing concrete surfaces to remove all oil, grease, stains, dirt, and dust as recommended by manufacturer before applying sealer to existing floors.
- C. Install specified sealer in strict compliance with manufacturer's specifications. Contractor to dispose of all waste materials resulting from sealer application in accordance with applicable regulations.
- D. Install clear sealer at exposed interior vertical concrete surfaces and exposed exterior vertical concrete surfaces not indicated to receive other finishes.

3.09 PATCHING

- A. Allow Architect/Engineer to inspect concrete surfaces immediately upon removal of forms.
- B. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Architect/Engineer upon discovery.
- C. Patch imperfections in accordance with ACI 301 and ACI 303R.

3.10 DEFECTIVE CONCRETE

- A. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
- B. Repair or replacement of defective concrete will be determined by the Architect/Engineer.
- C. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction

of Architect/Engineer for each individual area.

3.11 PROTECTION

- A. Protect all concrete from mechanical damage or contamination by any substance which would adversely affect the strength, integrity, appearance, usefulness or successful performance of coatings, finishes, or floor coverings applied to the concrete.
- B. Contractor is solely responsible for the means and methods employed to afford this protection.

END OF SECTION

DIVISION 5 - METALS

SECTION 05 52 00 METAL RAILING SYSTEMS

PART 1 - GENERAL

1.01 REFERENCES

- A. ASTM A123 – Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- B. ASTM A500 - Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Round and Shapes.
- C. SSPC - Steel Structures Painting Council. Steel Structures Painting Manual.
- D. AISC – American Institute of Steel Construction.
- E. AWS A2.0 - Standard Welding Symbols.
- F. AWS D1.1 - Structural Welding Code.
- G. AESS – Architecturally Exposed Structural Steel (AESS) – AISC Code of Standard Practice for Steel Buildings and Bridges – Section 10.
- H. AAMA – American Architectural Manufacturers Association.

1.02 QUALIFICATIONS

- A. Fabricator: Company specializing in performing the work of this Section with minimum five (5) years experience.
 - 1. AESS Fabricator: Company specializing in performing AESS fabrication work of this Section with minimum five (5) years documented experience with a record of successful in-service performance.
- B. Perform Work in accordance with AISC Section 10.
- C. Welder(s): Qualified within previous twelve (12) months for type of welding required in accordance with AWS D1.1 and AWS D1.4.
- D. Erector: Company specializing in performing the work of this Section with minimum five (5) years documented experience.
 - 1. AESS Erector: Company specializing in performing AESS erection work of this Section with minimum five (5) years documented experience with a record of successful in-service performance.
- E. Perform Work in accordance with AISC Section 10; Architecturally Exposed Structural Steel (AESS).

1.03 SUBMITTALS

- A. Submit shop drawings under provisions of Section 01300 Submittals and Shop Drawings.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, anchorage, size and type of fasteners, welds, and accessories. Shop drawings shall identify AESS components.

1.04 COLORS

- A. Colors are specified on Colors and Materials Schedule on drawings.

1.05 DESIGN PERFORMANCE REQUIREMENTS

- A. Design Loads: Metal railing components shall withstand live loads in accordance to applicable code requirements.
 - 1. Handrails and Guards: Shall resist a linear load of 50 pounds per linear foot in accordance with Section 4.5.1 of ASCE 7 and IBC 1607.8.1.
 - 2. Concentrated Load: Handrails and guards shall resist a concentrated load of 200 pounds in accordance with Section 4.5.1 of ASCE 7 and IBC 1607.8.1.1.
 - 3. Intermediate Rails: Shall resist a concentrated load of 50 pounds in accordance with Section 4.5.1 of ASCE 7 and IBC 1607.8.1.2.

PART 2 - PRODUCTS

2.01 RAILING SYSTEM - STEEL

- A. Steel Tubing: Round, square and rectangular. ASTM A500, Grade B.
- B. Steel Plates: ASTM A283.
- C. Steel Pipe: Round. Seamless, ASTM A53, Grade B, Schedule 40.
- D. Fittings: Provide all fittings required for complete installation. Steel elbows, radius wall returns, and wall brackets suitable for welded connection to tubing.
- E. Exposed Fasteners: Flush countersunk screws or bolts; consistent with design of railing.
- F. Fabricate AESS components in accordance to AESS standards and approved mock-up.
- G. Bolts, Nuts, and Washers (Exterior Use): ASTM A30,7 galvanized to ASTM A153 for galvanized components.

2.02 FABRICATION

- A. Field verify actual dimensions and conditions at site prior to shop fabrication.

- B. Fit and shop assemble components in largest practical sizes, for delivery to site.
- C. Fabricate AESS components in accordance to AESS standards and approved mock-up. Refer to Section 05 50 00 for AESS fabrication and installation requirements.
- D. Fabricate components with joints tightly fitted and welded full circumference.
- E. Align components accurately.
- F. If tubing has seams, locate in position concealed from view.
- G. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
- H. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
- I. Semi-Concealed Fastenings: Flush countersunk screws; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
- J. Continuously seal joined pieces by continuous welds; grind welds flush and smooth.
- K. Ease exposed edges to small uniform radius.
- L. All components, connections, and parts shall be smooth, uniform and free from defects.
- M. Accurately form components to suit stairs, balconies and landings, to each other and to building structure.
- N. Provide radius wall return fitting at ends of all handrails not terminating in vertical post or wall.
- O. Extend ends of top handrails to 3 inches of abutting finish face of building walls and columns.
- P. Provide posts for railings at maximum spacing of 6'-0" on center, unless otherwise indicated. Top of guard rails shall be 3'-6" above adjacent walking surfaces unless otherwise indicated. Top of handrails shall be 3'-0" above adjacent stair nosings or ramp surfaces unless otherwise indicated.

2.03 FINISH – STEEL

- A. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- B. Shop-Applied Painted Finish.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.

- B. Beginning of installation means erector accepts existing conditions.

3.02 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.

3.03 INSTALLATION – STEEL RAILING SYSTEM

- A. Install components plumb, level, and straight, accurately fitted, free from distortion or defects.
- B. Install AESS components in accordance to AESS standards.
- C. No field welding of (AESS) steel railing components permitted. Field assembled railing system components with fittings, bolted connections and semi-concealed fasteners in accordance to Contract Documents.
- D. Conceal bolts and screws whenever possible. Where not concealed, use flush countersunk fastenings. Rigidly secure to building structure or solid backing.
- E. Provide removable sleeves in concrete stairs, balconies, ramps and sidewalks for installation of handrails after concrete is poured. Set handrail in opening with fast-setting cement based grout.
- F. Completed installation, including connection to building structure or backing shall resist imposed design loads from any direction without permanent deflection or failure.

3.04 ERECTION TOLERANCES

- A. Maximum Variation from Plumb: 1/8 inch.
- B. Maximum Offset from True Alignment: 1/4 inch.
- C. Architecturally Exposed Structural Steel (AESS) Members: Members and components are plumbed, leveled and aligned to a tolerance not to exceed one-half the amount permitted for structural steel.

END OF SECTION

DIVISION 6 - WOOD AND PLASTIC

SECTION 06 10 00 ROUGH CARPENTRY

PART 1 - GENERAL

1.01 REFERENCES

- A. APA - American Plywood Association.
- B. AWP - American Wood Preservers Association) Book of Standards.
- C. WCLIB - West Coast Lumber Inspection Bureau.
- D. WWPA -Western Wood Products Association.
- E. SPIB – Southern Pine Inspection Bureau.
- F. Structural General Notes.

1.02 DELIVERY, STORAGE, AND PROTECTION

- A. Section 01600 Material and Equipment: Transport, handle, store, and protect products.

1.03 COORDINATION

- A. Coordinate and provide solid blocking for wall and ceiling mounted items.
- B. Coordinate sequencing and installation of gypsum wallboard and ceiling assemblies.

1.04 COLORS

- A. Colors are specified on Colors and Materials Schedule on the drawings.

PART 2 - PRODUCTS

2.01 SHEATHING MATERIALS

- A. Plywood Grade and Species: Refer to Structural Notes.

2.02 ACCESSORIES

- A. Drywall Screws: ASTM C1002, bugle shaped heads, Type W.

PART 3 - EXECUTION

3.01 **PLYWOOD SHEATHING**

- A. Secure roof sheathing with longer edge perpendicular to framing members and with ends staggered and sheet ends over bearing.
- B. Drill roof sheathing for required ventilation area at ridge vent assembly.

3.02 **BACKING**

- A. Use only 2x6 (minimum) No. 1 or No. 2 Douglas Fir, free of splits or shakes, large knots, checks, holes, or wane.
- B. Align face of backing flush with face of framing members.
- C. Attach to framing members with minimum four 16 penny nails each piece (2 nails each end).
- D. Replace any backing that splits during nailing.

3.03 **COORDINATION**

- A. Install solid 2x wood backing for all wall and ceiling mounted items included in other Sections of these specifications, including Division 26, and any Owner-furnished items shown on the Construction Documents.
- B. Coordinate wall tolerance requirements and backing requirements for gypsum wallboard
- C. Coordinate opening sizes required for work of other trades.
- D. Coordinate drilling, cutting, and notching performed by other trades so that structural integrity of framing members is not violated.

3.04 **TOLERANCES**

- A. Faces of Abutting Framing Members: Flush alignment.
- B. Framing Members: 1/8-inch maximum from true position.
- C. Misalignment of Framing Members: 1/8-inch maximum between adjacent members at center of span/length.

END OF SECTION

**DIVISION 7 - THERMAL AND
MOISTURE PROTECTION**

**SECTION 07 21 00
THERMAL INSULATION**

PART 1 - GENERAL

1.01 REFERENCES

- A. ASTM C612 – Mineral Fiber Block and Board Insulation.
- B. ASTM C665 - Mineral Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
- C. ASTM C1104 – Standard Test Method for Determining the Water Vapor Sorption of Unfaced Mineral Fiber Insulation.
- D. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- E. NFPA 255 - Test of Surface Burning Characteristics of Building Materials.
- F. UL 723 - Tests for Surface Burning Characteristics of Building Materials.

1.02 SUBMITTALS

- A. Submit under provisions of Section 01300 Submittals and Shop Drawings.
- B. Product Data: Provide data on product characteristics, performance criteria, and limitations.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.03 COLORS

- A. Colors are specified on Color and Materials Schedule on drawings.

PART 2 - PRODUCTS

2.01 RIGID INSULATION MATERIALS

- A. Rigid Insulation: Polystyrene (XPS) insulation, extruded cellular type, square edges, ASTM C578 Type IV, 25 psi minimum compressive strength, Dow Chemical Co. "Styrofoam," Owens Corning "Foamular," or approved.

2.02 MINERAL WOOL INSULATION (FOR MISCELLANEOUS PACKING)

- A. Mineral Wool Insulation and Safing; Mineral fiber (inorganic material; rock and blast furnace slag); ASTM C612 type IA, IB, II; ASTM E96 unfaced 50 perms as tested; ASTM E136 noncombustible; moisture-resistant; ASTM C665 noncorrosive type I, type III; non-deteriorating; mildew-proof; vermin-proof; 2" or greater thickness; 4.0 PCF safing. Tested to ASTM C518. R-4.0 per inch of thickness. Unfaced Flame Spread = 0. Smoke Development = 0.

Thermafiber Inc. or approved equal.

.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation are dry and ready to receive insulation.

3.02 PERIMETER FOUNDATION INSULATION INSTALLATION

- A. Install insulation in accordance with manufacturer's instructions.
- B. Run insulation board in continuous, unbroken line, butt joints tight, leave no voids or gaps.

3.03 MINERAL WOOL INSULATION (FOR MISCELLANEOUS PACKING)

- A. Pack insulation between top plate/runner and roof deck/structure on non-load bearing walls full width of plate/runner.
- B. Pack insulation around all mechanical and electrical penetrations through walls, floors, ceilings, and roof structure.
- A. Install mineral wool safin insulation at each floor level, full width of exterior metal stud cavity for depth of floor slab. Fill all voids between exterior metal studs and edge of floor slab.
- B. Pack mineral wool insulation within cavities of exterior hollow metal frames. Fill all voids.

END OF SECTION

SECTION 07 62 00
SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.01 REFERENCES

- A. AISI (American Iron and Steel Institute) - Stainless Steel - Uses in Architecture.
- B. ASTM A653 – Steel sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- C. ASTM A792 – Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- D. ASTM B32 - Solder Metal.
- E. ASTM B209 - Aluminum and Alloy Sheet and Plate.
- F. ASTM B370 - Copper Sheet and Strip for Building Construction.
- G. ASTM B486 - Paste Solder.
- H. ASTM D226 - Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- I. ASTM D4586 - Asphalt Roof Cement, Asbestos-Free.
- J. FS O-F-506 - Flux, Soldering, Paste and Liquid.
- K. NRCA (National Roofing Contractors Association) - Roofing Manual.
- L. SMACNA - Architectural Sheet Metal Manual.
- M. AAMA – American Architectural Manufacturers Association.
- N. AAMA 611 – Specification for Anodized Architectural Aluminum.
- O. AAMA 2605 – Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Architectural Extrusions and Panels.
- P. AA - Aluminum Association. Aluminum Design Manual.
- Q. PCI – Powder Coating Institute.

1.02 SUBMITTALS

- A. Submit under provisions of Section 01300 Submittals and Shop Drawings.

- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- C. Samples: Submit two (2) samples, illustrating typical material, color and finish.

1.03 QUALIFICATIONS

- A. Fabricator and Installer: Company specializing in sheet metal flashing work with three (3) years experience.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 01600 Materials and Equipment.
- B. Stack preformed material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials that may cause discoloration or staining.

1.05 COLORS

- A. Colors are specified on Colors and Materials Schedule on the drawings.

PART 2 - PRODUCTS

2.01 MATERIALS – SHEET METAL

- A. Steel Sheet: ASTM A653, G90 Galvanized (Zinc hot dip coating) steel sheet, minimum yield 50,000 psi, minimum 24 gauge thickness if not specified under components. Factory Finish.
- B. Aluminum Sheet: ASTM B209, alloy 5005 aluminum sheet, minimum 0.0403-inch (18 gauge) thickness if not specified under components. Factory Finish.

2.02 COMPONENTS

- A. Flashing, Trim and Break Shapes: Steel sheet material. Minimum thickness of 24 gauge.
- B. Exterior Wall Flashing (Base of Wall): Stainless steel sheet material. Minimum 20 gauge thickness.

2.03 ACCESSORIES

- A. Fasteners: Stainless steel screws with soft neoprene washers. Stainless steel rivets.
- B. Protective Backing Paint: Bituminous coating.
- C. Sealant: As specified in Section 07 92 00.
- D. Plastic Cement: ASTM D4586, Type I.

- E. Membrane Flashing: As specified in Section 07 25 00.
- F. Membrane Underlayment (High-Temp): As specified in Section 07 25 00.
- G. Isolation Tape (Dissimilar Metal Tape): Kelcom Inc or equal. Separation tape.
- H. Neoprene Tape (Weather Stripping): Kelcom Inc or equal. Neoprene tape. Compressible closed cell used for sealing and weather stripping.
- I. Butyl Tape (Sealing): Kelcom Inc or equal. Butyl tape. Used for watertight seal between two substrates.

2.04 **FABRICATION**

- A. Shop-fabricate work to greatest extent possible and comply with details shown and with applicable requirements of SMACNA Architectural Sheet Metal Manual.
- B. Field measure site conditions prior to fabricating work.
- C. Form the work to fit substrates. Comply with material manufacturer instructions and recommendations for forming material.
- D. Fabricate with required connection pieces.
- E. Form sections square, true, and accurate in size and shape, in maximum possible lengths but not less than 10 feet in length and free of distortion or defects detrimental to appearance or performance. Allow for expansion at joints where required by SMACNA recommendations. Keep joints to minimum, but any joint that is required, shall be provided with butt seam with concealed backup plate at joints unless specified otherwise. Coordinate joint layout with Architect prior to installation of sections.
- F. Hem exposed edges of metal.
- G. Mitered and soldered or welded fabricated components.
- H. Seam and install sealant at metal joints watertight.
- I. Fabricate copings in minimum of 10 ft sections and jointed to allow for longitudinal expansion. Corners on copings shall be mitered, lap-seamed and sealed. Install copings with continuous concealed cleat at the side of exterior walls opposite of the roof.
- J. Fabricate corners from one piece with minimum 18 to 24 inch long legs; seal corner watertight.
- K. Form exposed sheet metal work without excessive oil-canning, buckling and tool marks, true to line and levels indicated with exposed edges folded back to form hems.
- L. Fabricate sheet metal flashing, trim and components of specified profiles and shapes such that all visible exposed surfaces shall be of color and finish as specified. Conditions where both sides of the sheet metal material surface is visibly exposed to view; Contractor has

option to provide single-piece of sheet metal material with specified color and finish on both visibly exposed surfaces or provide 2-pieces of sheet metal material with specified color and finish on one surface, fabricate the item with the two sheet metal material pieces back-to-back such that all visible exposed surfaces are of color and finish specified.

2.05 FINISH - STEEL

- A. All visible exposed surfaces shall be of color and finish as specified.
- B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mils.
- C. Factory Finish: Kynar 500 / Hylar 5000 High-Performance (PVDF) Fluoropolymer Resin Finish (minimum 70% Polyvinylidene Fluoride (PVDF) resins) complying with AAMA 2605 specification requirements. Color as specified in Colors and Materials Schedule. Provide custom color when specified.

2.06 FINISH – ALUMINUM

- A. All visible exposed surfaces shall be of color and finish as specified.
- B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mils.
- C. Factory Finish: Anodized Finish, AAMA 611, Architectural Class I, minimum of 0.0007-inch thickness. Color as indicated in Colors and Materials Schedule.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work.
- B. Beginning of installation means acceptance of substrate.

3.02 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Install surface-mounted reglets true to lines and levels. Seal top of reglets with sealant.

3.03 INSTALLATION

- A. Except as otherwise indicated, comply with manufacturer's installation instructions and recommendations and with SMACNA Architectural Sheet Metal Manual.
- B. Install flashing, trim and break shapes, reglets and counter flashing system, and accessories in accordance with manufacturer's instructions and SMACNA manual. Coordinate installation of flashings with other sections.

SECTION 07 62 00
SHEET METAL FLASHING AND TRIM

- C. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.
- D. Apply plastic cement compound between metal flashings and felt flashings.
- E. Install isolation tape between dissimilar metals.
- F. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- G. Install work with laps, joints and seams that will be permanently watertight and weatherproof.
- H. Trim, flashing and break shapes shall be provided with butt seam with concealed backup plate at joints; form trim, flashing and break shapes in sections as long as possible, but not less than 10 feet in length. Coordinate joint layout with Architect prior to installation of trim, flashing and break shapes.
- I. Join lengths with seams of joint type allowing flush alignment of adjacent lengths, sealed watertight and allowing for thermal movement.
- J. Seal and seal metal joints watertight. Coordinate with Section 07 92 00 for sealants.
- K. Secure flashings in place using concealed fasteners and cleats.

END OF SECTION

**SECTION 07 92 00
JOINT SEALANTS**

PART 1 - GENERAL

1.01 REFERENCES

- A. ASTM C661 - Standard Test Method for Indentation Hardness of Elastomeric Type Sealants by Means of a Durometer.
- B. ASTM C834 - Latex Sealants.
- C. ASTM C920 - Elastomeric Joint Sealants.
- D. ASTM C1248 - Test Method for Staining of Porous Substrate by Joint Sealants.
- E. ASTM C1311 - Standard Specification for Solvent Release Sealants.
- F. ASTM C1330 - Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants.
- G. ASTM D2240 - Standard Test Method for Rubber Property - Durometer Hardness.
- H. FDA (U.S. Food and Drug Administration) - 21 CFR 177.2600: Title 21 Part 177 Indirect Food Additives: Polymers
- I. NSF (NSF International) - Standard 51: Food Equipment Materials.
- J. SWRI (Sealant, Waterproofing and Restoration Institute) - Sealant and Caulking Guide Specification.
- K. SWRI (Sealant, Waterproofing and Restoration Institute) - Validation Program.

1.02 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 Submittals and Shop Drawings.
- B. Data: Provide data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability. Colors will be selected by Architect from manufacturer's full line of available colors.
- C. Samples for Color Selection: For each joint sealant type.

1.03 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum five (5) years documented experience.

- B. Applicator: Company specializing in performing the work of this Section with minimum five (5) years experience approved by manufacturer.

1.04 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.05 COORDINATION

- A. Coordinate work under provisions of Section 01040 Project Coordination.

1.06 WARRANTY

- A. Provide one (1) year warranty.
- B. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal and exhibit loss of adhesion or cohesion, or do not cure.
- C. Special Manufacturer's Warranty: Manufacturer's standard form in which joint sealant manufacturer agrees to furnish joint sealants to repair or replace those that demonstrate deterioration or failure under normal use within warranty period specified.
 - 1. Warranty Period for Silicone Sealants: Twenty (20) years from date of Substantial Completion.

1.07 COLORS

- A. Colors are specified on Colors and Materials Schedule on the drawings.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General:
 - 1. VOC Content for Interior Applications: Provide sealants and sealant primers complying with the following VOC content limits per 40 CFR 59, Subpart D (EPA Method 24):
 - a. Architectural Sealants: 250 g/L.
 - b. Sealant Primers for Nonporous Substrates: 250 g/L.
 - c. Sealant Primers for Porous Substrates: 775 g/L.
 - 2. Compatibility: Provide joint sealants and accessory materials that are compatible with one another and with materials in close proximity under use conditions, as demonstrated by sealant manufacturer using ASTM C1087 testing and related experience.

3. Stain Test Characteristics: Where sealants are required to be nonstaining, provide sealants tested per ASTM C 1248 as non-staining on porous joint substrates indicated for Project.
4. Food Contact Suitability: Where sealants are required to be suitable for contact with food provide sealants complying with 21 CFR 177.2600.

B. Liquid Joint Sealants:

1. Single-Component, Nonsag, Neutral-Curing Sealant:
ASTM C 920, Type S, Grade NS, Class 50, for Use NT, G, M, A, and O; SWRI validation.
Hardness, ASTM D 2240: 35 durometer Shore A, minimum.

Dow Corning Corporation, 756 SMS Building Sealant.

Use in the following locations:

- a. Exterior joints in metal panel cladding systems.

2. Single-Component, Nonsag, Neutral-Curing Sealant:
ASTM C 920, Type S, Grade NS, Class 50, for Use NT, G, M, and A; SWRI validation.
Hardness, ASTM D 2240: 34 durometer Shore A, minimum.

Dow Corning Corporation, 791 Silicone Weatherproofing Sealant.

Use in the following locations:

- a. Interior perimeter joints of exterior frames.

3. Single-Component, Nonsag, Non-Staining, Neutral-Curing Silicone Sealant:
ASTM C920, Type S, Grade NS, Class 100/50, for Use NT, G, M, A, and O; SWRI validation. Hardness, ASTM D2240: 15 durometer Shore A.
Staining, ASTM C1248: None on concrete, granite, limestone, and brick.

Dow Corning 790 Silicone Building Sealant.
Tremco Spectrem 3.

Use in the following locations:

- a. Exterior construction joints in cast-in-place concrete. Above-grade.
- b. Exterior movement joints in concrete unit masonry. Above-grade.
- c. Exterior joints between different materials listed above. Above-grade.
- d. Exterior perimeter joints at frames of doors, windows, storefront frames, curtain wall frames, and louvers..

4. Single-Component, Nonsag, Neutral-Curing Silicone Sealant:
ASTM C 920, Type S, Grade NS, Class 25, for Use NT; SWRI validation.
Hardness, ASTM D 2240: 45 durometer Shore A, minimum.

Dow Corning Corporation, 758 Silicone Building Sealant.

Use in the following locations:

- a. Exterior concealed watertight joints in cladding systems.

5. Non-hardening Acoustical Sealant:

Tremco Acoustical Sealant.
OSI SC-175.
USG sheetrock Acoustical Sealant.

Use in the following locations:

- a. Interior exposed and non-exposed acoustical applications.

6. Single Component Silicone Sealant:

Dow Corning 799 Silicone Glass and Metal Building Sealant.

Use in the following locations:

- a. Clear sealant at exposed bolt and fastener connections in exterior exposed metal fabrications.

7. Single Component High Performance Neutral Cure Silicone Sealant:

Dow Corning 780 Plumber and Roofing Sealant.

Use in the following above-grade locations:

- b. Sealant for sheet metal and aluminum roofing, flashing, gutters and rainwater accessories.

C. Sealant Color: As selected by Architect.

2.03 ACCESSORIES

- A. Joint Substrate Primers: Substrate primer recommended by sealant manufacturer for application.

- B. Cylindrical Sealant Backing: ASTM C 1330, Type B non-absorbent, bi-cellular material with surface skin, Type C closed cell polyethylene or Type O open-cell polyurethane, as recommended by sealant manufacturer for application. Diameter 1/3 to 1/2 greater than width of joint where it is to be installed.

- 1. Polystyrene foam not acceptable.

- C. Bond Breaker Tape: Polymer tape compatible with joint sealant materials and recommended by sealant manufacturer.

- D. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer;

compatible with joint forming materials.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that substrate surfaces and joint openings are ready to receive work.
- B. Verify that joint backing and release tapes are compatible with sealant.

3.02 PREPARATION

- A. Remove loose materials and foreign matter that might impair adhesion of sealant.
- B. Clean joints in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with ASTM C804 for solvent release and ASTM C790 for latex base sealants.
- D. Verify that joint backing and release tapes are compatible with sealant.
- E. Protect elements surrounding the work of this Section from damage or disfiguration.

3.03 PRIMER APPLICATION

- A. General: Install primer wherever recommended by sealant manufacturer for conditions/materials being sealed to achieve manufacturer's published joint performance criteria including applicable federal specifications.
- B. Prime all exterior joints, using primer recommended by sealant manufacturer for substrate/conditions.

3.04 INSTALLATION

- A. Install sealant in accordance with manufacturer's instructions.
- B. Measure joint dimensions and size materials to achieve required width/depth ratios. Minimum joint width for exterior joints not indicated otherwise shall be 1/4-in.
- C. Install joint backing to achieve a neck dimension no greater than 1/3 of the joint width.
- D. Install bond breaker where joint backing is not used.
- E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- F. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- G. Tool joints concave, unless noted otherwise.
- H. Remove improperly applied sealant and replace with new.

3.05 FIELD QUALITY CONTROL

- A. Perform adhesion tests for replacement silicone sealant joints and preformed silicone seal in accordance with manufacturer's instructions and ASTM C1193, Method A, Field-Applied Sealant Joint Hand-Pull Tab.
 - 1. Perform 5 tests for first 1,000 linear feet of applied silicone sealant and 1 test for each 1,000 feet sealant thereafter or perform 1 test per floor per building elevation minimum.
 - 2. For sealants applied between dissimilar materials, test both sides of joint.
- B. Sealants failing adhesion test shall be removed, substrates cleaned, seals re-installed, and re-testing performed.
- C. Maintain test log and submit report to Architect indicating tests, locations, dates, results, and remedial actions.

3.06 CLEANING

- A. Clean work under provisions of Section 01040 Project Coordination.
- B. Clean adjacent soiled surfaces.

3.07 PROTECTION OF FINISHED WORK

- A. Protect sealants until cured.
- B. Repair or replace defaced or disfigured finishes caused by work of this Section.

END OF SECTION

DIVISION 9 - FINISHES

SECTION 09 22 16 NON-STRUCTURAL METAL FRAMING

PART 1 - GENERAL

1.01 REFERENCES

- A. ASTM A653 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
- B. ASTM C645 - Non-structural steel framing members.
- C. ASTM C754 - Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
- D. GA 203 - Installation of Screw-Type Steel Framing Members to Receive Gypsum Board.
- E. Steel Stud Manufacturers Association (SSMA) – Product Technical Information.

1.02 SUBMITTALS

- A. Submit under provisions of Section 01300 Submittals and Shop Drawings.
- B. Product Data: Provide data describing standard framing member materials and finish, product criteria, load charts, limitations, and installation.

1.03 QUALITY ASSURANCE

- A. Perform work in accordance with GA 203 and ASTM C754.
- B. Maintain one (1) copy of each document on site.

1.04 QUALIFICATIONS

- A. Installer: Company specializing in performing the work of this Section with minimum five (5) years documented experience.

1.05 COLORS

- A. Colors are specified on Colors and Materials Schedule on drawings.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Scafco Corporation.
- B. Steeler Inc.

- C. Substitutions: Under provisions of Section 01300 Submittals and Shop Drawings.

2.02 FRAMING MATERIALS

- A. Studs: ASTM A653 galvanized rolled steel, channel shaped, punched for utility access:
 - 1. Non-Bearing Stud Thickness: Minimum 25 gauge, except ASTM C754 limiting heights shall not be exceeded for maximum deflection of $l/240$. Minimum 20 gauge for applications to receive ceramic tile finishes, or where required for fire-rated construction.
- B. Runners: Of same material and thickness as studs, bent leg retainer notched to receive studs with provision for crimp locking to stud.
- C. Furring and Bracing Members: Of same material as studs; thickness to suit purpose.
- D. Fasteners: GA 203. Self-drilling, self-tapping screws.
- E. Sheet Metal Backing: 20 gauge (0.9 mm thick) galvanized steel for reinforcement of wall-mounted items. Similar to Metal-Lite, Inc. "Flush Mount" product.
- F. Anchorage Devices: Power actuated driven and drilled expansion bolts.
- G. Sealant: As specified in Section 07 92 00.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that conditions are ready to receive work.
- B. Verify that rough-in utilities are in proper location.

3.02 CEILING FRAMING INSTALLATION

- A. Install in accordance with ASTM C754.
- B. Coordinate location of hangers with other work.
- C. Install ceiling framing independent of walls, columns, and above ceiling work.
- D. Reinforce openings in ceiling suspension system that interrupt main carrying channels or furring channels, with lateral channel bracing. Extend bracing minimum 24 in. past each end of openings.
- E. Laterally brace entire suspension system.

3.03 ERECTION

- A. Align and secure top and bottom runners at 24 in. (600 mm) o.c.

- B. Stud splicing not permissible.
- C. Fabricate corners using a minimum of three (3) studs.
- D. Brace stud framing system rigid. Brace all partitions that terminate below ceiling structure at intervals not-to-exceed 10 ft.
- E. Refer to drawings for indication of partitions extending to finished ceiling only and for partitions extending to the structure above. Maintain minimum 3/4 in. clearance under structural building members to avoid deflection transfer to studs. Provide extended leg ceiling runner slip track attached to structure. Slip track shall not be rigidly attached to wall framing or finishes, and shall prevent lateral deflection of wall.
- F. Provide sheet metal backing for casework and electrical panels and boards.

3.04 ERECTION TOLERANCES

- A. Install member to provide surface plane with maximum variation of 1/8 in. in 10 ft in any direction.

END OF SECTION

**SECTION 09 29 00
GYPSUM BOARD**

PART 1 - GENERAL

1.01 REFERENCES

- A. ANSI A118.9 – Test Method and Specifications for Cementitious Backer Units
- B. ASTM C475 - Joint Treatment Materials for Gypsum Wallboard Construction.
- C. ASTM C645 – Non-structural steel framing members.
- D. ASTM C754 - Installation of Framing Members to Receive Screw Attached Gypsum Panel Products.
- E. ASTM C840 - Application and Finishing of Gypsum Board.
- F. ASTM C1002 – Steel Self Piercing Tapping Screws for the application of Gypsum Panel Products, metal plaster bases to wood or steel studs.
- G. ASTM C1278 – Standard Specification for Fiber Reinforced Gypsum Panel.
- H. ASTM C1396 – Standard Specification for Gypsum Board.
- I. ASTM E119 - Fire Tests of Building Construction and Materials.
- J. GA-201 - Gypsum Board for Walls and Ceilings.
- K. GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board.
- L. GA-600 - Fire Resistance Design Manual.
- M. GA-214 – Recommended Levels of Gypsum Board Finish.
- N. NWWCB – Northwest Wall and Ceiling Bureau Manual.

1.02 SUBMITTALS

- A. Product Data: Provide manufacturer's product information for each product specified.

1.03 QUALITY ASSURANCE

- A. Applicator: Company specializing in performing the work of this Section with minimum five (5) years experience.

1.04 REGULATORY REQUIREMENTS

- A. Conform to applicable code for fire rated assemblies.

1.05 COLORS

- A. Colors are specified on Colors and Materials Schedule on drawings.

1.06 DELIVERY, STORAGE, AND PROTECTION

- A. Deliver materials in original packages, containers or bundles bearing brand name and identification of manufacturer or supplier.
- B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic and other causes. Neatly stack gypsum boards flat to prevent sagging.
- C. Handle gypsum boards to prevent damage to edges, ends and surfaces. Do not bend or otherwise damage metal corner beads and/or trims.
- D. Steel framing and related accessories shall be stored and handled in accordance with AISI's "Code of Standard Practice".

PART 2 - PRODUCTS

2.01 GYPSUM BOARD MATERIALS

- A. Gypsum Wallboard: ASTM C1396; fire resistive type, UL rated; 5/8-inch thick, maximum permissible length; ends square cut, tapered and beveled edges. Product: USG SHEETROCK Gypsum Panel, Firecode Core.

2.02 ACCESSORIES

- A. Provide manufacturer's standard trim accessories for gypsum board work, per ASTM C 1047. Provide with either knurled or perforated expanded flanges for nailing or stapling, and beaded for concealment of flanges, in joint compound.
- B. Fasteners: ASTM C1002 Buglehead screws, length as recommended by U.S. Gypsum Handbook, required for penetration into framing members.
- C. Acoustical Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board.
- D. Corner Beads: Metal.
- E. Edge Trim: GA 201 and GA 216; Type LC, L, LK bead.
- F. Joint Materials: GA 201 and GA 216; reinforcing tape, joint compound, adhesive, and water.
- G. Control Joint: GA 216; roll-formed zinc control joint with removable strip, similar to USG No. 093 or ClarkDietrich™ 093 Control Joint.

- H. Metal Furring Channels: GA 216; roll-formed zinc furring channel 25 gauge, 3/4 in.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that site conditions are ready to receive work.

3.02 GYPSUM BOARD INSTALLATION

- A. Install metal-backed gypsum sheathing in accordance with manufacturer's instructions.
- B. Install gypsum board in accordance with GA 201, GA 216, and GA 600.
- C. Single Layer Applications: Erect single layer board horizontal, perpendicular to framing with ends and edges occurring over firm bearing.
- D. Use screws when fastening gypsum board to metal furring or framing.

3.03 JOINT TREATMENT

- A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
- B. Feather coats onto adjoining surfaces so that camber is maximum 1/32 in.
- C. Seal gypsum wallboard prior to texturing in accordance with manufacturer's instructions.
- D. Apply one (1) coat tape system (fire tape) at walls and ceilings exposed in attic and attic mechanical rooms.

3.04 LEVELS OF FINISH (per GA-214)

- A. Level 4 Exposed Areas:
All joints and interior angles shall have tape embedded in joint compound and three (3) separate coats of joint compound applied over all joints, angles, fastener heads, and accessories. All joint compound shall be smooth and free of tool marks and ridges.

3.05 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 in. in 10 ft in any direction.

END OF SECTION

SECTION 09 91 00
PAINTING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Field-Applied paints, stains, sealers and other coatings.
- B. Shop-Applied paints, stains, sealers and other coatings.

1.02 REFERENCES

- A. Master Painters Institute (MPI) Architectural Painting Specification Manual.
- B. Master Painters Institute (MPI) Maintenance and Repainting Manual.
- C. AAMA – American Architectural Manufacturers Association.

1.03 SUBMITTALS

- A. Samples:
 - 1. Submit per Section 01300 Submittals and Shop Drawings and the following:
 - a. Submit 8 in. x 10 in. color samples of color selections indicated on Colors and Materials Schedule on drawings. Submit samples in gloss selections scheduled.
 - b. Furnish additional required samples until colors, finishes, and textures are reviewed and Architect issues written authorization to proceed.
 - c. Retain approved samples for reference.
- B. Materials and Products Lists (Typewritten):
 - 1. Submit complete lists of products proposed for use in scheduled finish systems.
 - a. Arrange in same format as scheduled in this Section, and list MPI product numbers applicable to each system.
 - b. Include applicable manufacturer's recommendations.
 - c. Include additional information requested by Architect.

1.04 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing the products specified in this Section

with minimum three (3) years documented experience.

- B. Applicator: Company specializing in performing the work of this Section with minimum three (3) years documented experience.

1.05 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame and smoke rating requirements for finishes.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 01600 Material and Equipment.
- B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- C. Container label to include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- D. Store paint materials at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.
- E. Apply manufacturer's standard protective coverings to shop-applied finished surfaces.
- F. Deliver, store and handle shop-applied finished components in manner to prevent damage to finishes. Furnish touch-up paint along with each material shipment.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- C. Minimum Application Temperatures for Latex Paints: 45 degrees F (7 degrees C) for interiors; 50 degrees F (10 degrees C) for exterior; unless required otherwise by manufacturer's instructions.

1.08 EXTRA MATERIALS

- A. Maintenance Materials: Leave 1/2 gallon of each type and color of paint and other coating products for maintenance purposes.
 - 1. Label for positive identification.
 - 2. Store where directed.
 - 3. Turn over to Owner at jobsite and obtain signed receipt.

1.09 WARRANTY

- A. Furnish one (1) year warranty in accordance with referenced services "Manual" on full value of work included in this Section.
 - 1. Warrant work to be in accordance with Specifications, standards and requirements incorporated in referenced manual.
 - 2. Warranty not applicable to defective items through faulty work by other trades, or for failure of substrates.
 - 3. Warranty does not assume any liability for claim other than repairing painting and finishing defects, as determined by Manual.

1.10 COLORS

- A. Colors are specified on Colors and Materials Schedule on drawings.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Materials shall be in accordance with the MPI Architectural Painting Specification Manual "Approved Product" listing and shall be from a single manufacturer for each system used.
- B. Conform also to governing regulations such as Federal and State requirements for pollution, safety, and health. Finishes shall have flamespread ratings that do not exceed those permitted by the IBC.
- C. Materials not specifically indicated, but required, such as linseed, oil, shellac, thinners, shall be the highest quality product of an approved manufacturer listed in the MPI Architectural Painting Specification Manual.
- D. Mixing: Furnish ready-mixed products.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- C. Test shop applied protective coatings (primers) for compatibility with subsequent cover materials.

- D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 - 1. Plaster and Gypsum Wallboard: 12 percent.
 - 2. Interior Wood: 15 percent, measured in accordance with ASTM D2016.

3.02 MATERIALS NOT TO BE FINISHED

- A. The following receive no finish except as indicated:
 - 1. Metals as listed:
 - a. Brass, bronze, copper, plated metals, and stainless steel.
 - 2. Plastic laminate surfacing.
 - 3. Glass, unless otherwise noted.
 - 4. Electronic switchplates; lighting fixtures.
 - 5. Finish hardware.

3.03 PREPARATION

- A. Prepare surfaces as follows and as specified in the MPI Architectural Painting Specifications Manual and the MPI Maintenance Repainting Manual. Consult manuals for surface preparations not indicated.
- B. Remove electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
- C. Correct defects and clean surfaces that affect work of this Section.
- D. Seal with shellac and seal marks which may bleed through surface finishes.
- E. Aluminum Surfaces Scheduled for Paint Finish: Remove surface contamination by steam or high-pressure water. Remove oxidation with acid etch and solvent washing. Apply etching primer immediately following cleaning.
- F. Gypsum Board Surfaces: Fill minor defects with filler compound. Spot prime defects after repair.
- G. Galvanized Surfaces: Prepare surfaces to receive specified coating systems by removing contaminants, oils and pre-treatments, including chromate passivation, using one of the following methods approved by the paint manufacturer:
 - 1. Apply a commercial clean and etch solution conforming to MPI #25 - Etching Cleaner in accordance with manufacturer's instructions.
 - 2. Provide brush-off blast cleaning of the surface in accordance with SSPC-SP 7, using

air pressures and abrasives that produce a suitable surface with minimal damage to underlying zinc coating.

3. Contractor may test surfaces for chromate passivation and use alternate methods of preparation as recommended by the paint manufacturer for galvanized surfaces that are confirmed to be negative for pre-treatment or passivation.
 4. Coordinate with galvanized metal manufacturer for factory priming, where applicable, and prepare and prime factory-primed surfaces as recommended by the paint manufacturer to receive the specified topcoats. Test coat factory-primed surfaces for paint compatibility and adhesion.
- H. Exposed Structural Steel and Miscellaneous Metal Surfaces (Except Galvanized Surfaces). Remove grease, mill scale, weld splatter, dirt, and rust. White metal blast clean (SSPC SP-5) surfaces of entire member to remove scale coating; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Prime paint after cleaning.
- I. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Prime metal items including shop primed items.
- J. Interior Wood Items Scheduled to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats.

3.04 APPLICATION

- A. Perform the work in accordance with MPI Architectural Painting Specifications Manual and manufacturer's directions. Where these may be in conflict, the more stringent requirements govern.
- B. All work shall be "Premium Grade" in accordance with referenced MPI manuals.
- C. Apply products in accordance with manufacturer's instructions.
- D. Do not apply finishes to surfaces that are not dry.
- E. Apply each coat to uniform finish.
- F. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.
- G. Vacuum clean surfaces free of loose particles. Use tack cloth just prior to applying next coat.
- H. Allow applied coat to dry before next coat is applied.
- I. Where clear finishes are required, tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.

3.05 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Paint exterior exposed conduit, pipes and other miscellaneous unfinished electrical and mechanical equipment, components, assemblies and devices; including exposed related brackets and supports.
 - 1. Electrical Panelboards.
 - 2. Pipe and fittings.
- B. Refer to Division 22 and Division 26 for schedule of color coding and identification banding of equipment, duct work, piping, and conduit.
- C. Paint shop primed equipment. Paint shop prefinished items occurring at interior areas.
- D. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- E. Prime and paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, except where items are prefinished.
- F. Paint interior surfaces of air ducts that are visible through grilles and louvers with one coat of flat black paint, to visible surfaces. Paint dampers exposed behind louvers and grilles to match face panels.
- G. Paint exposed conduit and electrical equipment occurring in finished areas.
- H. Paint both sides and edges of plywood backboards for electrical and telephone equipment before installing equipment.
- I. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.
- J. Paint existing mechanical grilles and diffusers that are to be reused in renovated spaces.

3.06 PATCHING

- A. As work is completed in room areas, repair surfaces damaged by other trades requiring touch-up or refinishing. Surfaces where touch-up of damaged areas remains distinguishable from surrounding undamaged areas under normal viewing conditions shall be refinished to nearest corners or intersections.

3.07 CLEANING

- A. As work proceeds, and on completion of work, promptly remove all spilled, splashed or splattered products so as not to damage surfaces.
 - 1. During work progress, keep premises free from any unnecessary accumulation of tools, equipment, surplus materials, and debris.

3.08 PAINTING AND FINISHING TITLES AND CODE NUMBERS

- A. References are from referenced manual unless otherwise indicated. They indicate coating system, grades, and acceptable manufacturers and products.

3.09 GLOSS

- A. All finishes: Gloss as scheduled.

3.10 EXTERIOR PAINTING AND FINISHING SCHEDULE

(All Work Premium Grade)

- A. Paint exterior surfaces in accordance with the following MPI Painting Specification Manual requirements:

- 1. Structural Steel Framing and Metal Fabrications (Shop-Applied): (metal railing systems and metal fabrications)

Shop-Applied Finish: Powder Coated High-Performance (PVDF) Fluoropolymer Resin Finish.

- 2. Galvanized (Protective Coating) Structural Steel Framing and Metal Fabrications (Field-Applied): (metal fabrications)

EXT 5.3L: Polyurethane, pigmented (over high build epoxy) G6 gloss finish.

3.11 INTERIOR PAINTING AND FINISHING SCHEDULE

(All Work Premium Grade)

- A. Paint interior surfaces in accordance with the following MPI Painting Specification Manual requirements:

- 1. Plaster and Gypsum Board:

INT 9.2B: High Performance Architectural Latex, G3 eggshell finish.

3.12 FIELD QUALITY CONTROL

- A. Conform to referenced manual's standards for work, unless otherwise indicated.

3.13 REPLACEMENT OF HARDWARE AND MISCELLANEOUS ITEMS

- A. Reinstall items previously required to be removed.

3.14 CLEANING

- A. At conclusion of project, thoroughly clean paint and splatters from glass, mirrors, and other surfaces. Take care not to scratch surfaces.

- B. Clean residue of work of this section from any other surfaces.
- C. At work's conclusion, leave premises neat and clean.

END OF SECTION

DIVISION 10 - SPECIALTIES

SECTION 10 20 00 SPECIALTY SIGNAGE

PART 1 – GENERAL

1.01 REFERENCES

- A. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.

1.02 SUBMITTALS

- A. Submit under provisions of Section 01300 Submittals and Shop Drawings.
- B. Shop Drawings: Indicate sign type, footings with reinforcements, anchoring and attachment methods, structure, hardware, lettering, font, materials, finishes, locations, and dimensions of each sign.
- C. Samples: Submit the following samples for review:
- D. Manufacturer's Installation Instructions: Include installation template and attachment devices.

1.03 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three (3) years documented experience.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site under provisions of Section 01600 Material and Equipment.

1.05 COLORS

- A. All Colors are specified in the notes and materials schedule in the Exhibits document.

1.06 REGULATORY REQUIREMENTS

- A. Install in conformance with Tacoma Municipal Code
- B. Install in conformance with Title III of the Americans and Disabilities Act, Public Law 101-336.
- C. All materials, methods of fabrication, attachments, footings and structures to conform with building code requirements.

PART 2 - PRODUCTS

2.01 SIGNS

- A. See referenced Exterior Elevations.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that site and substrate surfaces are ready to receive work.
- B. Verify all existing conditions and perform utility located both public and private as needed.
- C. Coordinate power and data control locations.
- D. Contractor shall coordinate a pre-installation meeting at the site(s) prior to commencing fabrication or on-site construction activities to verify final locations and to resolve all questions relating to work.

3.02 FABRICATION

- A. Materials and finishes, 10" tall, ½" thick routed aluminum letter, painted Silver faces and edges. Letters affixed to ¼" aluminum rod posts above ½" x 2" aluminum flat bar base to provide freestanding appearance. Mount flat bar to standing seams of metal roof with clips. To minimize penetrations. Stainless steel hardware.
 - 1. Comply with materials and finishes specified as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
 - 2. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with specified items, request clarification before proceeding.

3.03 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install signs after all surfaces are painted and finished.
- C. Clean and polish in accordance with manufacturer's recommendations.

END OF SECTION

DIVISION 13 - SPECIAL CONSTRUCTION

SECTION 13 34 23 PREFABRICATED GUARD HOUSE

PART 1 – GENERAL

1.01 REFERENCES

- A. ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities.
- B. IBC, International Building Code
- C. Washington State amendments to the IBC, including but not limited to the Washington State Energy Code,
- D. City of Tacoma amendments to the IBC

1.02 SUBMITTALS

- A. Submit product data under provision of Section 01 33 00 – Submittals
- B. Product Data: manufacturers' data sheet covering
 - 1. Storage and handling requirements
 - 2. Installation methods.
 - 3. Maintenance procedures
- C. Shop Drawings:
 - 1. Drawings shall include elevations, section, floor plan, electric schedule, service entrance locations, and anchor clip detail.
 - 2. Dimensions, framing Tolerances, affected related work and installation requirements.
- D. Submit two (2) samples 12 inch x 12 inch in size illustrating prefinished materiel, window and door framing, glazing and finish materials and colors.
- E. Manufacturer Certificate: Certify that the products meet or exceed specified requirements.

1.03 QUALITY ASSURANCE

- A. Structures shall be the product of a manufacturer with a minimum of Ten (10) years-documented experience in the design and fabrication of prefabricated metal guard house.
- B. Prefabricated buildings by manufacturers other than the one approved shall submit sufficient data to enable approval to be given. As a minimum: design drawings and/or calculations, applicable certifications, catalog information, and color samples showing equal range of variety.

1.04 REGULATORY REQUIREMENTS

- A. Design loads: Live Loads: Per requirements for the installation location. Unit to be manufactured to be in full compliance with the State and City in which the guard house is located in. If that State has Modular Building approval program requirements, manufacture

to obtain State approval and third party inspection prior to shipping, including the State approval Insignia affixed to the guard house before shipping.

1.05 ALTERNATES

- A. See Section 01 1300 1.3 for bidding alternates affecting the work of this Section

1.06 COLORS

- A. Colors are specified on the Colors and material Schedules on Drawings

1.07 WARRANTY

- A. Provide Ten (10) year written warranty

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Basis for design and quality intended.
 - 1. B.I.G. Enterprises, Inc. South El Monte CA. 800-669-1449, Ref. No. 910024
- B. Or equal as approved in accordance with Section 01 1300 for Substitutions.

2.02 STRUCTURE

- A. Prefabricated steel building shall be single unit welded construction. Building to be shipped completely assembled. All welded joints ground smooth. Dimensions as noted on drawings.

2.03 WALLS

- A. 16 ga. Galvanized steel interior and exterior panels MIG welded between frame and mullions for self-aligning unitized system, creating a structural diaphragm. Walls shall be insulated and designed to meet minimum requirements of Washington State Energy Code. Wall finish to be 5/8" GWB with level four finish, painted.

2.04 BASE AND FLOOR

- A. Unit to have a 12ga. galvanized steel plate floor welded to a 2" x 2" or 2" x 3" perimeter galvanized steel tube frame with structural galvanized steel joists welded to the frame. R-10 floor insulation will be provided in concrete pad per drawings.
- B. Rubber Flooring and base per Finish Schedule

2.05 CEILING

- A. ACT Ceiling finish per Finish Schedule

2.06 DOOR

- A. Unit to have single commercial galvanized steel framed and insulated swinging door, with three stainless steel security hinges. Stainless steel kick plates on both sides. Stainless steel hardware to match existing facility. mortise lock, window and complete weather stripping. Security hardware with electronic strike and pad to be compatible with existing convention center hardware system.

2.07 WINDOWS

- A. 16 ga. galvanized steel window frame system with flush mounted corners and welded fastening. Unit to have fixed windows on all sides, all windows glazed with 3\4" tempered insulating glazing units with Solar Ban 60 coating.

2.08 ROOF

- A. Roof to be a standing seam hip style designed for exterior use. Roof to be constructed of internal steel framing that is covered with 3\4" exterior grade plywood siding and roofing paper. Roof to be finished with 20ga. galvanized steel standing seam decking with a baked on Kynar 500 finish. Roof structure to be insulated to meeting Washington State Energy Code minimum requirements, and shall have a 6" tall fascia with 6" overhang. Roof to have removable lifting eyes.

2.09 CABINETRY & COUNTER

- A. Guard house to have a stainless steel exterior counter at the front wall per drawings.
- B. Plastic Laminate faced cabinetry, custom grade. Solid surface Counter tops, finish and color per Finish schedule. Cabinetry layout design by booth manufacturer, as approved by owner during shop drawing process.

2.10 ELECTRICAL

- A. Panelboard: Load Center shall be 125 Amp rated 240/120 volt, single phase, 3 wire 30 pole with 125 amp main breaker. 2-30A 2 pole breakers and the remaining 20 amp 1 pole breakers. Provide with surge protection.
- B. Provide quad receptacle outlets no further than 4 feet apart under counter. Maximum 4 receptacles per circuit. Provide two quad receptacles 48" aff at recharging counter. Provide 1 duplex receptacle under each work station, each on separate dedicated circuit. Devices shall be 20A specification grade with stainless steel cover plates. Label plates to indicate circuit. Weather resistant GFCI receptacles with weatherproof while in use cover at exterior entry.
- C. Lighting: Dimmable LED lights recessed in a 16ga. galvanized steel ceiling (50FC per SqFt) with single pole dimmer wall switch inside by entry.
- D. Telecommunications: 5" deep outlet boxes with single gang mud rings. 1"C pathway from each work station stubbed into attic near access.
- E. Egress Lighting: Provide dual head battery back-up egress light or integral battery back-up in recessed ceiling light fixture. Exterior light with 0 degree battery back-up and photo sensor. Battery back-up shall provide 90 minutes of operation.
- F. Air Conditioner: 1 ton Split system (cooling/heating) using recessed ceiling cassette and remote exterior wall mount heat pump at 230 volts. Locate exterior unit on electrical/comm end wall.

PART 3 - EXECUTION

3.01 GENERAL

- A. Install prefabricated buildings on flat and level concrete pad in accordance with the manufacturer's recommendations and placement drawings. Position units over utility stub-ups, verify building is level and anchor.

3.02 INSTALLATION

- A. Units shall be shipped fully assembled, fully wired, fully glazed and thoroughly painted.
- B. Position units over electrical stub-up on level pad. Drill and set expansion type anchor bolts.
- G. Connect power and seal around edges where the floor base meets the concrete pad.

END OF SECTION

DIVISION 20 - MECHANICAL

SECTION 20 05 00 COMMON WORK RESULTS FOR MECHANICAL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 00 and Division 01 Specification Sections, apply to this Section.
- B. Division 21 - Fire Suppression.

1.02 WORK INCLUDED

- A. General Mechanical System Requirements.
- B. Identification and Labeling.

1.03 DEFINITIONS

- A. Abbreviations and Terms: Where not defined elsewhere in the Contract Documents, shall be as defined in RS Means Illustrated Construction Dictionary, Fourth Addition and in the ASHRAE Handbook of Fundamentals, latest edition.
- B. "As required" means "as necessary to form a safe, neat, and complete working installation (or product), fulfilling all the requirements of the specifications and drawings and in compliance with all codes."
- C. "Concealed" means "hidden from view" as determined when areas are in their final finished condition, from the point of view of a person located in the finished area. Items located in areas above suspended ceilings, in plumbing chases, and in similar areas are considered "concealed." Items located in cabinet spaces (e.g. below sinks) are not considered concealed.
- D. "Coordinate" means "to accomplish the work with all others that are involved in the work by: directly discussing the work with them, arranging and participating in special meetings with them to discuss and plan the work being done by each, obtaining and completing any necessary forms and documentation required for the work to proceed, reaching agreement on how parts of the work performed by each trade will be installed relative to each other both in physical location and in time sequence, exchanging all necessary information so as to allow the work to be accomplished with a united effort in accordance with the project requirements".
- E. "Finished Areas" means "areas receiving a finish coat of paint on one or more wall surface."
- F. "Mechanical", where applied to the scope of work, includes all work indicated in Div 20 and 21.
- G. The term "related documents" (as used at the beginning of each specification section), and the Specification Divisions and Sections listed with it, is only an indication of some of the specification sections which the work of that section may be strongly related to. Since all items of work relate to one another and require full coordination, all specification sections, as listed in the Table of Contents, shall be considered as being "related documents", and shall be considered (by this reference) in the same manner as if they had all been listed under the term "related documents" in each specification section.

- H. "Work included" (as used at the beginning of each specification section), and the items listed with it, is only an indication of some of the items specified in that Section and is in no way limiting the work of that Section. See complete drawings and specifications for all required work.
- I. "Verify" means "Contractor shall obtain, by methods independent of the project Architect/Engineer and Owner, the information noted and the information needed to properly perform the work". Where used as "verify existing" the reference is to all existing items related to the work (i.e. piping systems, duct systems, electrical power, controls, structural conditions, space available, building construction type, etc.); the "verify" definition shall include "Confirm by means independent of any existing field labeling and independent of the Architect/ Engineer and Owner what the existing piping (or duct) system contains, sizes, what the flow direction is, what normal pressures/temperatures are, what other systems and areas the piping (or duct) is interconnected to; what the existing control voltages/signal types are by direct measurement; what the existing electrical power voltages and phases are by direct measurement; and additional field verification and coordination to ensure that compatible products are provided, correct connections made, and all work performed to allow for fully functioning systems." "Means independent of existing field labeling" shall include methods such as: the use of exterior pressurized sources to pressurize piping system lines, use of flow tests with dyes, physical tracing of piping and all connections to, electronic detection methods, electronic/electric line tracing, electrical measurements, physical disassembling of system, excavation or uncovering of concealed systems, use of insertion cameras and similar efforts.
- J. "Substitution": As applied to equipment means "equipment that is different than the 'Basis of Design' equipment scheduled on the drawings (or otherwise indicated in the contract documents)".

1.04 GENERAL REQUIREMENTS

- A. Scope: Furnish all labor, materials, tools, equipment, and services for all mechanical work. This section applies to all Division 20, and 21 specifications and to all project mechanical work. General: All work shall comply with Division 00, General Conditions, Supplementary Conditions, Division 01, and all other provisions of the Contract Documents.
- B. Code:
 - 1. Compliance: All work shall be done in accordance with all applicable codes and ordinances.
 - 2. Documentation: Maintain documentation of all permits and code inspections for the mechanical work; submit documentation showing systems have satisfactorily passed all AHJ inspections and requirements.
 - 3. Code Knowledge: Contractor and workers assigned to this project shall be familiar and knowledgeable of all applicable codes and ordinances. Code requirements are typically not repeated in the Contract Documents. By submitting a bid, the Contractor is acknowledging that the Contractor and workers to be utilized on this project have such knowledge.
 - 4. Proof of Code Compliance: Prior to final completion, satisfactory evidence shall be furnished to show that all work has been installed in accordance with all codes and that all inspections required have been successfully passed. Satisfactory evidence includes signed inspections by the local code authority, test lab results, qualified and witnessed field tests, and related acceptance certificates by local code authorities, and field notes by the Contractor as to when all inspections and tests occurred.

- C. Complete Systems: Furnish and install all materials, appurtenances, devices, and miscellaneous items not specifically mentioned herein or noted on the drawings, but which are necessary to make a complete working installation of all mechanical systems. Not all accessories or devices are shown or specified that are necessary to form complete and functional systems.
- D. Review and Coordination: To eliminate all possible errors and interferences, thoroughly examine all the Drawings and Specifications before work is started, and consult and coordinate with each of the various trades regarding the work. Such coordination shall begin prior to any work starting, and continue throughout the project.
- E. Conflicts and Discrepancies: Notify the Architect/Engineer of any discrepancies or conflicts before proceeding with any work or the purchasing of any materials for the area(s) of conflict until requesting and obtaining written instructions from the Architect/Engineer on how to proceed. Any work done after discovery of such discrepancies or conflicts and prior to obtaining the Architect/Engineer's instructions on how to proceed shall be done at the Contractor's expense.
- F. Standards and References: Shall be latest edition unless a specific edition, year, or version is cited, or is enforced by the AHJ.
- G. Warranties:
 - 1. General: Products and workmanship shall be warranted to be free from all defects, capable of providing satisfactory system operation, and conforming to the requirements of the Contract Documents. Include in the project bid all costs associated with project warranties to ensure that the warranty extends for the required period; possible project delays and failure by others to complete their work may cause the start of the warranty period to be delayed. The Contractor shall be responsible for increasing the warranty dates by corresponding amounts to provide the required warranty periods.
 - 2. Basic Project Warranty: As described in the General Conditions, Supplementary Conditions, and Division 01. Start date and duration are as indicated in General Conditions, Supplementary Conditions, and Division 01. Where not indicated otherwise, the basic project warranty shall start at project substantial completion and be for one year.
- H. Permits and Fees: Obtain and pay for all permits, licenses, fees and inspections as required by the Code and as specified herein (unless noted otherwise).

1.05 SUBSTITUTIONS

- A. General: See Division 00 and 01 for information and requirements regarding substitutions. Manufacturers not scheduled on the plans or listed as "Acceptable Manufacturers" require prior approval and shall submit a substitution request form (see Division 01 for requirements and limitations). See Paragraph 2.01 this specification section regarding "Acceptable Manufacturers".

1.06 QUALITY ASSURANCE

- A. Experience: All work shall be performed by individuals experienced and knowledgeable in the work they are performing, and experienced with the same type of systems and building type as this project. By virtue of submitting a bid, the Contractor is acknowledging that workers to be utilized on this project have such experience and knowledge. Upon request of the

Engineer, submit resumes showing the work history, training, and types of projects worked on, for individuals assigned to this project.

- B. Code: Utilize workers experienced and knowledgeable with codes pertaining to their work; verify code compliance through-out the project.
- C. Quality Assurance Checks: Prior to ordering products and making submittals, confirm the following for each:
 - 1. General: Product is suitable for the intended purpose and complies with the Contract Documents.
 - 2. Manufacturer: Product's manufacturer is listed as an acceptable manufacturer in the Contract Document's or a substitution request (where allowed) has been submitted and the manufacturer has been listed as acceptable.
 - 3. Listing: Item is Listed when required to be as such. And if the item is to be installed as part of a Listed system or assembly, it is compliant with the Listing of the overall system or assembly.

1.07 SUBMITTALS - GENERAL

- A. Variations: Only variations that are specifically identified as described herein will be considered. Provide with the submittal (in addition to other information required): description of the proposed variation, entity who is proposing the variation, why the variation is being proposed, any cost changes associated with the variation, and any other pertinent data to allow for review. Failure to submit information on the variation as described will result in the submittal review being conducted without considering the variation.
- B. Quality Assurance: By submitting an item for review, the Contractor is claiming that all "Quality Assurance Checks" (see paragraph 1.06 this specification Section) have been performed and satisfactorily passed and no further comment from the submittal reviewer is required for the "Quality Assurance Checks".
- C. Product Submittals - Information Required:
 - 1. Manufacturer's catalog information, containing product description, model number, and illustrations. Mark clearly to identify pertinent information and exact model and configuration being submitted.
 - 2. List of accessories and options provided with product.
 - 3. Product dimensions.
 - 4. Submittal identified with product name and symbol (as shown on the drawings or written in the specifications) and specification Section and paragraph reference.
 - 5. Performance capacity and characteristics showing compliance with the Contract Documents.
 - 6. Manufacturer's and local manufacturer's representative names, addresses, and phone numbers.
 - 7. See each specification Section for additional submittal requirements.
- D. Shop Drawing Submittals: Provide for the following systems:

1. Fire Suppression Systems.

1.08 SCHEDULE OF VALUES

- A. Breakdown: Provide schedule of values with a materials and labor breakdown.
- B. Closeout: Provide a dollar value for "Punchlist, Closeout, and Owner Training"; shall in no case be less than 3% of the total dollar value of the mechanical work.

1.09 RECORD DOCUMENTS

- A. Field Record Drawings: Maintain a set of full size contract plans at the project site upon which all changes from the as-bid plans are noted.
- B. ACAD Record Drawings: Upon completion of the project, the Contractor shall transfer all the data from field record drawings to electronic drawing files using ACAD *.dwg format; latest release or next earlier version.
- C. ACAD Record Drawings Submittal: Submit 2 CD's, each having ACAD and pdf files of the field record drawings and 3 full size paper plots.

1.10 PRODUCT HANDLING, PROTECTION AND MAINTENANCE

- A. Protection:
 1. Protect all products from contamination, becoming unclean, and from damage of any kind and whatever cause; when being handled, in storage, and while installed, until final project acceptance.
 2. Protect premises and work of other trades from damage due to Mechanical work.
- B. Openings: Cap all openings in pipe to protect against entry of foreign matter until all work that could cause unclean conditions or damage is complete (including work that has dust or fumes associated with it). Caps shall be of sufficient strength and seal integrity to prevent entry of water or fumes for the most extreme conditions they may be exposed to (i.e. high velocity water spray, high winds, concrete splash, etc.)
- C. Damaged Products: Damaged products shall be replaced with new.

1.11 JOB CONDITIONS

- A. Special Requirements:
 1. Maintain emergency and service entrance usable to pedestrian and vehicle traffic at all times. Where trenches are cut, provide adequate bridging for traffic.
 2. Coordinate startup and shutdown of all mechanical systems and utilities with related trades and the Owner's representative.
 3. Coordinate all construction activities with the Owner's Representative and cooperate fully so as to minimize conflicts and to facilitate Owner usage of the premises during construction.
- B. Downtime Restrictions: Contractor shall notify the Owner at least 72 hours in advance of any intended shut-down of any building services or systems and obtain Owner approval prior to proceeding.

- C. Schedule of Work: Arrange work to comply with schedule of construction, and so as not to violate any downtime restrictions, and to accommodate the Owner's scheduled use of the premises during construction.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. General: Any reference in the Specifications to any article, device, product, material, form or type of construction by manufacturer, name, make, model number, or catalog number shall be interpreted as establishing a standard of quality and shall not be construed as limiting competition. The manufacturers listed as Acceptable Manufacturers may bid the project for the items indicated without submitting a substitution request; however that does not relieve the products from having to comply with the Contract Documents.
- B. Substitutions: Products by manufacturers listed as "Acceptable Manufacturers" (other than those listed as the "Basis of Design") are considered substitutions and shall comply with the requirements for substitutions. See Paragraph titled "Substitutions" in Part 1 of this specification section.
- C. Considerations: In reviewing a manufacturer for acceptance, factors considered (as compared to the specified item) include: engineering data showing item's capacity, performance, proper local representation of manufacturer, likelihood of manufacturer's future local support of product, service availability, previous installations, previous use by Owner/Engineer/Architect, product quality, availability/quality of maintenance and operation data, capacity/performance, and similar concerns.
- D. Limitations of the Term "Acceptable Manufacturer": The listing of a manufacturer as an Acceptable Manufacturer does not necessarily mean that the products of that manufacturer are equal to those specified. The listing is only an indication of those manufacturers which have represented themselves as being capable of manufacturing, or have in the past manufactured, items equal to those specified. The burden to review products to confirm equivalency with the specified products is on the Contractor. The Architect/Engineer shall be the final judge as to whether an item is equal to that specified.
- E. Quality: Products provided by Acceptable Manufacturers shall be equal to or superior to the specified manufacturer's item in function, appearance, and quality, and shall fulfill all requirements of the Contract Documents. The Architect/Engineer shall be the judge as to whether an item meets these requirements or not.
- F. Manufacturer: To be considered as being made by a particular manufacturer, the product must be made directly by the manufacturer and have the manufacturer's name (or nameplate with name) affixed to the product (or on the product container where direct labeling is not possible). Example: manufacture "A" is listed as an acceptable manufacture; manufacturer "B" is not listed as an acceptable manufacturer; manufacturer "A" owns "B"; products from "B" do not qualify as being made by an acceptable manufacturer by virtue of ownership.

2.02 PRODUCTS - GENERAL

- A. Standard Products: Products shall be standard products of a manufacturer regularly engaged in the manufacture of such products. The standard products shall have been in satisfactory commercial or industrial use for two years prior to bid opening. The two year use shall include applications of equipment and materials under similar circumstances and of similar size. The two year's experience must be satisfactorily completed by a product which has been sold or is offered for sale on the commercial market through advertisements,

manufacturers' catalogs, or brochures. Except that equipment changes made solely to satisfy code requirements, to improve unit efficiency, or to comply with unique project requirements are not required to have two year prior operation.

- B. Compatibility: All components and materials used shall be compatible to the conditions and materials the items will be exposed to. All items exposed to the weather shall be galvanized, or be of stainless steel or similar corrosion resistant material.
- C. Temperature/Pressure Rating: All materials and components furnished shall be suitable for the temperature and pressures they will be exposed to.
- D. Standardization: All products of the same type shall be by the same manufacturer and have the same characteristics and features to allow for Owner's standardization.
- E. Model Numbers: Any reference to a manufacturer's "model number" is a reference to a manufacturer's series number or type of product, and is not a complete "model number" in having all the necessary numbers/letters to convey all of the features, accessories, and options that are required. These series numbers are only meant to convey a type of product that may meet the project requirements. Where conflicts or discrepancies occur regarding a listed manufacturer's series or "model" number and specified capacities or features, the more stringent and expensive shall prevail.

2.03 IDENTIFICATION AND LABELS

- A. General: All piping, valves, and mechanical equipment shall be labeled. Labels in concealed accessible spaces shall be reviewed and verified by Architect/Engineer prior to being concealed.

- B. Piping:

- 1. Type: Self-sticking colored identification markers, lettered to identify the pipe contents, and banded at each end with arrow tape indicating the direction of flow. Markers shall be similar and equal to Brady "System 1" and Seton "Opti-Code" markers. Spray painted stencil labeling is not acceptable. Some labels may be special order.
- 2. Identification Colors: Comply with ASME A13.1, and as follows:

<u>Conveyed Material/System</u>	<u>Background</u>	<u>Letters</u>
Fire Suppression	Red	White

- 3. Lettering: Lettering shall identify the material conveyed in each pipe and shall match the designation used on the plans, but without abbreviations. Systems which have supply and return piping shall have piping labeled as such (i.e. heating water return, heating water supply, etc.). Systems that have different pressures shall be labeled to indicate such (i.e. Steam-Low Pressure, Steam- Medium Pressure, Natural Gas-Low Pressure, Natural Gas-Medium Pressure, etc.).

- 4. Size: Size of letters and color field shall comply with ASME A13.1, repeated here for convenience:

<u>Outside Diameter of Pipe or Covering</u>	<u>Length of Color Field</u>	<u>Size of Letters</u>
3/4 to 1-1/4 Inches	8 Inches	1/2 Inches
1-1/2 to 2 Inches	8 Inches	3/4 Inches
2-1/2 to 6 Inches	12 Inches	1-1/4 Inches

8 to 10 Inches	24 Inches	2-1/2 Inches
Over 10 Inches	32 Inches	3-1/2 Inches

PART 3 - EXECUTION

3.01 GENERAL

- A. Workmanship: Furnish and install products to provide complete and functioning systems with a neat and finished appearance.
- B. Coordination: Coordinate the work with all trades that may be affected by the work to avoid conflicts and to allow for an organized and efficient installation of all systems.
- C. Examination and Preparation: Examine installation conditions and verify they are proper and ready for the work to proceed. Do not proceed with the work until unsatisfactory conditions have been corrected.
- D. Openings and Cutting and Patching in New Construction:
 - 1. Openings - General: The General Contractor shall provide all required spaces and provisions in structures of new construction for the installation of work of all other contractors or subcontractors.
 - 2. Coordination: The Contractors doing work subject to Division 20 shall furnish to the General Contractor (in a timely manner) all needed dimensions and locations of openings to allow for these openings to be provided as the construction adjacent to the opening is being done.
 - 3. Cutting and Patching: Cutting and patching of structures in place made necessary to admit work, repair defective work, or by neglect of contractors and subcontractors to properly anticipate their requirements, shall be done by the General Contractor at the expense of the contractors or subcontractors responsible. Work shall be done in a fashion to duplicate the results that would have been obtained had the work been properly sequenced.
 - 4. Patching Materials: Patching shall be with materials of like kind and quality of the adjoining surface by skilled labor experienced in that particular trade.
- E. Openings and Cutting and Patching in Existing Construction:
 - 1. Openings-General: Provide all openings and cutting as needed to accommodate all work. Provide patching to restore all damaged and disturbed areas to pre-construction conditions (or better). The Contractor or subcontractor requiring the opening shall be responsible for making that opening. The opening shall be made by skilled labor experienced in providing openings in the material being penetrated.
 - 2. Areas To Be Cut and Patched: Wherever floors, walls, ceilings, plates, firestops and framing members are cut, these openings shall be substantially reinforced and sealed so as to maintain the strength and sealing ability of the element equal to that as if it had not been cut. All reinforcement/sealing shall satisfy the Architect/Engineer and comply with the governing codes. Such cut areas shall be patched and restored to a finished condition, equal to adjacent final finished areas that have not been cut.

3. Cutting of Structural Features: Make no cuts or alterations to any structural framing members without explicit consent of the Engineer, and then only under his direction. Locate cuttings so they will not weaken structural components. Cut carefully and only the minimum amount necessary. All required cutting to install material shall be accomplished with the use of saw cutting equipment.
 4. Patching Materials: Patching shall be with materials of like kind and quality of the adjoining surface by skilled labor experienced in that particular trade.
- F. Cleaning: Clean all products (whether exposed to view or not) of all construction debris, and other materials; grease and oil spots shall be removed with appropriate cleaning agents and surfaces carefully wiped clean. Where cleaning cannot restore items to new conditions, the item shall be replaced with new.

3.02 INSTALLATION

- A. General: Work shall be in accordance with manufacturer's written installation instructions, code, applicable standards, and best construction practices.
- B. Space Verification: Prior to ordering materials verify that adequate space exists to accept the products, and along the installation path. Such verification shall be by direct field measurement of the actual space available and use of manufacturer's final submittal dimensions. Installation Locations:
- C. Replacement and Maintenance: Install mechanical equipment to permit easy access for normal maintenance, and so that parts requiring periodic replacement or maintenance (e.g. coils, heat exchanger bundles, sheaves, filters, bearings, etc.) can be removed. Relocate items which interfere with access or revise item installation location, orientation, or means of access.
- D. Building Access Doors: Provide access doors where indicated and where needed to provide access to valves, drains, and similar items requiring service or access that would otherwise be inaccessible. Consult architectural drawings and coordinate location and installation of access doors with trades which are affected by the installation. The Contractor shall review all construction details and types and locations of items requiring access to determine quantity and sizes of access doors required.
- E. Electrical Offsets: Provide offsets around all electrical panels (and similar electrical equipment) to maintain space clear above and below electrical panels to structure, and clearance of 3.5 feet directly in front of panel, except where indicated otherwise or required by code to be more.

3.03 PAINTING

- A. General: Painting shall comply with Division 09 specifications regarding painting. Colors, in all cases, shall be as selected by the Architect/Engineer. Color samples shall be submitted to the Architect/Engineer for approval prior to painting.
- B. All exposed sprinkler piping provided by this Contractor shall receive one coat of rust inhibiting primer and two (2) coats of selected finish paint.

3.04 PENETRATION PROTECTION

- A. Exterior and Watertight Penetrations: Where any work pierces the building exterior (or construction intended to be watertight) the penetration shall be made watertight and weatherproof. Provide all necessary products (e.g. caulking, flashing, screens, gaskets,

backing materials, trim, etc.). Where not detailed or indicated how to install submit shop drawings of the proposed methods. Flashing arrangements shall be per SMACNA Architectural Sheet Metal Manual unless noted otherwise. Caulking alone is not an acceptable means of sealing penetrations.

3.05 OWNER INSTRUCTION

- A. General: Provide instruction to the Owner on the operation and maintenance of all installed mechanical systems.
- B. Personnel: Instruction on the operation and maintenance of products shall be by individuals trained and experienced in the installation, operation and maintenance of these products. Instruction shall be by the product manufacturer's authorized service representative where indicated (see individual specification Sections).
- C. Scheduling and Agenda: Submit a proposed instruction schedule (with proposed dates and times) and an instruction agenda at least 30 days prior to the earliest proposed instruction period. Coordinate Owner and Architect/Engineer review and arrange mutually agreed upon instruction schedule and the instruction agenda, and submit a final instruction schedule and agenda. Organize instruction by sub-systems corresponding to the project specifications (or similar logical grouping).

END OF SECTION

**SECTION 20 05 29
HANGERS AND SUPPORTS FOR MECHANICAL**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 00 and Division 01 Specification Sections, apply to this Section.
- B. Requirements of Section 20 05 00 apply to this Section.

1.02 WORK INCLUDED

- A. Pipe Hangers and Supports.

1.03 QUALITY ASSURANCE

- A. Pipe Hanger Standards: Manufacturers Standardization Society (MSS) Standards SP-58, SP-89, SP-69, and SP-90.
- B. General: All methods, materials and workmanship shall comply with Code; including IBC, IMC, UPC, NFPA Standards, and ASME standards.

1.04 SUBMITTALS

- A. General: Submittals shall comply with Section 20 05 00.
- B. Product Data: Submit product data for all hangers, supports, and anchors. Data to include finish, load rating, dimensions, and applicable agency listings. Indicate application for all items by system type, size, and other criteria as appropriate to project.
- C. Shop Drawings:
 - 1. General: Shop drawings shall clearly indicate dimensions, anchor and support type, anchor and support size, anchor and support spacing, finish, configuration, and systems/equipment to be applied to.
 - 2. Attachments: Submit shop drawings for proposed attachment methods to building structure where the method of attachment has not been shown on the drawings, or where attachment methods other than those shown on the drawings are desired to be used.

1.05 GENERAL REQUIREMENTS

- A. Seismic: Provide adequate hangers, supports, anchors, and bracing to serve as seismic restraints. Seismic restraints system shall be able to withstand seismic forces as required by code; provide seismic restraint calculations as required by the AHJ.
- B. Design and Manufacture: All pipe hangers and supports shall be designed and manufactured in accordance with MSS-SP 58.

1.06 REFERENCES

- A. ASME B31.9: Building Services Piping.
- B. ASTM A36: Standard Specification for Carbon Structural Steel.
- C. ASTM A108: Standard Specification for Steel Bar, Carbon and Alloy, Cold - Finished.
- D. ASTM A123: Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- E. ASTM A153: Standard specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
- F. IBC: International Building Code.
- G. Federal Spec QQ-W-461H: Wire, Steel, Carbon (Round, Bare, and Coated).
- H. Mason SRG: Mason Industries Seismic Restraint Guidelines for Suspended Piping, Ductwork, Electrical Systems and Floor Mounted Equipment, 6th Edition.
- I. MSS SP-58: Pipe and Hangers and Supports - Materials, Design and Manufacture.
- J. MSS SP-69: Pipe and Hangers and Supports - Selection and Application.
- K. MSS SP-89: Pipe Hangers and Supports - Fabrication and Installation Practices.
- L. MSS SP-90: Guidelines on Terminology for Pipe Hangers and Supports.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Products shall comply with Section 20 05 00, Paragraph 2.01, Acceptable Manufacturers.
- B. Hangers and Supports: Grinnell, B-Line Systems, Unistrut, Erico, PHD, Basic-PSA, Pate, Caddy, Unisource, Metraflex, American Insulation Sales, Thermal Pipe Shields.
- C. Anchors: Rawplug, Phillips, Hilti, Michigan, Simpson, Fastenal, Grinnell, B-Line Systems, Unistrut, PHD, Basic-PSA, Metraflex.

2.02 GENERAL

- A. Finish:
 - 1. Indoor Applications: Electro-plated zinc in accordance with ASTM B 633, or hot-dip galvanized after fabrication in accordance with ASTM A 123; except that hanger straps may be formed from pre-galvanized steel.
 - 2. Outdoor Applications: Hot-dip galvanized after fabrication in accordance with ASTM A 123, ASTM A 153, or ASTM A 653 (as applicable to item).
- B. Identification: Steel pipe hangers and supports shall be stamped with the manufacturer's name, part number, and size.
- C. Hanger Rods: Threaded hot rolled steel. Hanger rods shall be sized so that the total load imposed (including pipe or duct, insulation, hangers, and fluid) does not exceed the following:

<u>Nominal Rod Diameter</u>	<u>Maximum Load</u>
1/4 Inch	240 Pounds
5/16 Inch	440 Pounds
3/8 Inch	610 Pounds
1/2 Inch	1130 Pounds
5/8 Inch	1810 Pounds
3/4 Inch	2710 Pounds
7/8 Inch	3770 Pounds
1 Inch	4960 Pounds

- D. Beam Attachments: Constructed of malleable iron or steel, MSS standard types designed for clamping to building structural support beam. "C" clamp type shall have cup point set screws with locknuts and retaining straps. Center loaded type beam clamps shall have horizontally adjustable clamping bolt (or rod with nuts).
- E. Concrete Anchors: Wedge type expansion anchors, with hex nut and washer, and stainless steel split expansion rings. Tested to ASTM E 488 criteria, UL listed, with exposed anchor head stamped with code to identify anchor length.
- F. General Anchors (Screws, Nuts, Bolts, Fasteners): Constructed of materials suitable for the conditions exposed to and materials being joined, with minimum 50 year service life. Configuration, size and grade to suit application, accommodate expected forces, and provide anchoring to structural element (or allow for proper fastening of items). Minimum safety factor of 2.5 (or as required by code, whichever is greater). Comply with ASTM A307, SAE J429, SAE J78, or ASTM A 563; bolts and nuts shall have unified inch screw threads (course, UNC).
- G. Manufactured Strut Systems:
 - 1. Channels: Minimum 12 gauge, 1-5/8 x 1-5/8" (unless noted otherwise), with slots/holes to suit application.
 - 2. Accessories: Channel nuts press formed, machined and hardened with gripping slot, fabricated from steel conforming to ASTM A 108 or ASTM A 36. Fittings fabricated from steel in accordance with ASTM A 907.
 - 3. End Caps: Vinyl cap, capable of withstanding high temperatures without degradation, manufactured specifically for use with manufactured strut. Unistrut Series P2859 or P2860 (or approved).
- H. Steel: Structural steel per ASTM A 36.

2.03 PIPE HANGERS AND SUPPORTS

- A. Copper Pipe: All hangers used directly on copper pipe shall be copper plated or have a factory applied 1/16-inch thick (minimum) plastic coating on all contact surfaces.
- B. Type: Shall be MSS type selected in accordance with MSS-69; except that MSS type 24, 26, and 34 shall not be used.

PART 3 - EXECUTION

3.01 INSTALLATION - GENERAL

- A. General: Provide all necessary bolts, nuts, washers, fasteners, turnbuckles, hanger rods, rod connectors, stanchions, wall/roof/floor backing and attachments, bridging between structural members, and any other miscellaneous accessories required for the support and anchoring of all pipes, ducts, and mechanical equipment. All supports, whether from floor, walls, or hung from structure, are Contractor's responsibility. Anchors and supports shall be adequate to accommodate forces equipment will be exposed to.
- B. Installation: Install all inserts, anchors, and supports in accordance with manufacturer's instructions, code requirements, and best professional practices. The most restrictive criteria governs.
- C. Seismic: Provide hangers, supports, anchors and bracing as required by code and as necessary to accommodate forces in a seismic event. Seismic bracing is not required for piping sized 2-inch and less, or for horizontal piping where the distance from the top of the pipe to the support attachment point to the building structure is less than 12-inches (unless noted otherwise). Seismic bracing is not required for ductwork less than 28-inch in diameter or having across sectional area less than 6 square feet, or for horizontal ductwork where the distance from the top of the duct to the support attachment point to the building structure is less than 12-inches (unless noted otherwise). All equipment shall be seismically anchored.

3.02 INSTALLATION OF PIPE HANGERS AND SUPPORTS

- A. General: Aboveground pipe shall be anchored to the structure to prevent sagging, to keep pipe in alignment, and to resist the forces the pipe will be exposed to; piping shall be supported independent of equipment so that no loads bear on the equipment.
- B. Adjustment: All pipe supports shall be provided with a means of adjustment for the aligning and leveling of the pipe after installation.
- C. Vertical Piping Supports: Support piping at each floor line with pipe clamps and at intermediate points as required so that hanger spacing does not exceed allowable spacing and as required to prevent excessive pipe movement.

END OF SECTION

**SECTION 20 05 30
SLEEVES AND SEALS FOR MECHANICAL**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 00 and Division 01 Specification Sections, apply to this Section.
- B. Requirements of Section 20 05 00 apply to this Section.

1.02 WORK INCLUDED

- A. Pipe Sleeves.
- B. Seals.

1.03 SUBMITTALS

- A. General: Shall comply with Section 20 05 00.
- B. Product Data: Provide product data on all material to be use. Provide MSDS for all sealants, caulks and similar materials.

1.04 REFERENCES

- A. ASTM A 36: Standard Specification for Carbon Structural Steel.
- B. ASTM C534: Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form.
- C. ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials.
- D. ASTM E 814: Standard Test Method for Fire Tests of Through-Penetration Fire Stops.
- E. UL 1479: Standard for Fire Tests of Through-Penetration Firestops.
- F. UL 723: Surface Burning Characteristics of Building Materials.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Products shall comply with Section 20 05 00, Paragraph 2.01, Acceptable Manufacturers.
- B. Firestop Seal Materials: 3M, Dow Corning.
- C. Non-Firestop Seal Materials: 3M, GE, Dow Corning, Tremco, Pecora, Sonneborn, Pipeline Seal & Insulator.

2.02 PIPE SLEEVES

- A. Diameter:
 - 1. Inside diameter of aboveground pipe sleeves shall be at least 1-inch larger than the outside diameter of the pipe, so as to allow free movement of piping.
 - 2. Large Movement: Provide larger sleeves where a larger space around pipe exterior is required by code, where specifically noted, where pipe movement will occur (i.e. expansion/contraction or seismic), other unusual conditions are present, and where required to accommodate large piping movement.
- B. Length: Horizontal sleeves through finished areas (where sleeve is exposed to view) shall be sized to be flush with finished surfaces; other horizontal sleeves may terminate flush to 2-inches past the element being penetrated. Vertical sleeves shall be sized to extend two inches above the final floor elevation.
- C. Type: Fabricated from schedule 40 steel pipe. Waterstop shall consist of fully welded 2-inch larger diameter collar, minimum 1/4 inch thick steel, located on sleeve so as to be centered within the element being penetrated. Provide waterstop on sleeves where sleeves are installed in the following locations: between Level 2 ceiling and Guard House floor, and where needed for anchoring/support purposes. Prime paint all surfaces with rust-inhibiting paint.

2.03 FIRESTOP SEALS

- A. General: Commercially manufactured through-penetration and membrane-penetration firestop systems to prevent the passage of fire, smoke and gases, and to restore the original fire-resistance rating of the barrier penetrated.
- B. Listing: Firestopping shall be listed by UL in "Fire Resistance Directory" (category to match the application), or be qualified by another independent agency acceptable to the AHJ.
- C. Rating: Firestop system and devices shall be tested in accordance with ASTM E 814 or UL 1479, with "F" and "T" ratings as required to maintain the fire-resistance rating of the barrier penetrated, and as required by code.
- D. Fire Hazard: Materials shall have a flame spread of 25 or less, and a smoke development rating of 50 or less; when tested in accordance with ASTM E 84 or UL 723.

2.04 NON-FIRESTOP SEALS

- A. Indoor Sealants:
 - 1. Dry Area (Not Normally Exposed to Water/Moisture): Single component, latex sealant complying with requirements of ASTM C834. Sealants shall be of the following types, or approved equal:
 - a. Tremco Corporation "Tremflex 834".
 - b. Pecora Corporation "AC-20 Arylic Latex".
 - c. Sonneborn Building Products "Sonolac".
 - 2. Wet Area (Exposed to Water/Moisture): Single component, mildew resistant silicone sealant complying with requirements of ASTM C920, Type S, Grade NS, Class 25. Color white. Sealants shall be of the following types, or approved equal:

- a. Dow Corning "786 Mildew Resistant Silicone".
 - b. Pecora Corporation "898 Silicone Sanitary Sealant".
 - c. Tremco "Tremsil 200".
- B. Outdoor Sealants:
 - 1. General: Single component, non-sag, low modulus, silicone elastomeric sealant conforming to requirements of ASTM C920, Type S, Grade NS, Class 100/50. Sealant shall be of the following types, or approved equal.
 - a. Dow Corning "790 Silicone Building Sealant".
 - b. Pecora Corporation "890 Silicone".
 - c. Tremco "Spectrem 1".
- C. Grout: ASTM C 1107, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout. Nonshrink; recommended for interior and exterior applications.
 - 1. Design mix shall provide 5000-psi, 28-day compressive strength. Premixed and factory packaged.

PART 3 - EXECUTION

3.01 PIPE SLEEVES

- A. General: Provide sleeves for all piping passing through new and existing walls, floors, partitions, and similar elements. Except that sleeves are not required at horizontal core drilled penetrations through solid.
- B. Installation: Set sleeves plumb or level (or sloped as required for sloped pipes) in proper position, tightly fitted into the work. Set sleeves properly in element for specified projection past adjacent surfaces (see sleeve product specification); cut ends of sleeve as necessary.

3.02 FIRESTOP SEALS

- A. General: At each through-penetration and membrane-penetration in rated assemblies, where required to limit the passage of smoke, and as required by code or in the Contract Documents, provide a firestop system. Firestop system shall be installed in accordance with the manufacturer's instructions and listing.
- B. System Selection: Contractor is responsible to select the firestop systems to be utilized, corresponding to the construction of the assembly penetrated, and types of penetrations. Contractor shall submit proposed firestop systems to be utilized, shall also review such systems with the AHJ and obtain AHJ approval.
- C. Preparation: Prepare surfaces as recommended by firestop material manufacturer. Examine and confirm that conditions are acceptable to proceed with the installation. Provide maskings and temporary coverings to prevent contamination or defacement of adjacent surfaces.
- D. Installation Review: Notify AHJ when firestopping work is complete and ready for inspection. Provide sufficient advance notice to allow scheduling of the inspection without adversely

impacting project schedule. Do not cover or conceal firestopping until all inspections have been satisfactorily completed.

3.03 NON-FIRESTOP SEALS

- A. General: Provide seals around piping passing through sleeves, new and existing walls, floors, and similar elements. Seals shall be watertight where the penetration may be exposed to water or moisture. Provide type of sealant to suit the application
- B. At Sleeves:
 - 1. Between Sleeve and Penetrated Element: Fill openings around outside of pipe sleeve with same material as surrounding construction, or with material of equivalent fire and smoke rating and properties that allow a tight seal between the sleeve and the surrounding construction. Seal full depth of sleeve for vertical penetrations.
 - 2. Between Pipe and Inside of Sleeve: Provide sealant between outside of pipe) and inside of sleeve. Seal depth shall be minimum 1-inch each side.
- C. Preparation: Remove loose materials and foreign matter impairing adhesion of seal. Perform preparation in accordance with recognized standards and sealant manufacturers' recommendations. Protect elements surrounding area of work from damage or disfiguration due.
- D. Installation: Install sealants immediately after joint preparation. Install sealants free of air pockets, foreign embedded matter, ridges, and sags. Tool exposed joint surface concave and with a neat finished appearance.

END OF SECTION

DIVISION 21 - FIRE SUPPRESSION
SECTION 21 10 00
WATER-BASED FIRE SUPPRESSION SYSTEMS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 00 and Division 01 Specification Sections, apply to this Section.
- B. Requirements of Section 20 05 00 apply to this Section.

1.02 WORK INCLUDED

- A. Sprinkler System Design
- B. Piping
- C. Sprinkler Heads
- D. Valves
- E. Accessories

1.03 QUALITY ASSURANCE

- A. General: Comply with 20 05 00 requirements.
- B. Listing: All materials and equipment shall be UL listed and FM approved for the application.
- C. Latest Design: Products shall be of the manufacturer's latest design.
- D. Code and AHJ Compliance: Products and installation shall comply with code and Authority Having Jurisdiction (AHJ) requirements. Contractor is responsible to review and be familiar with code and local AHJ requirements. Products submitted are represented by the Contractor as complying with code and AHJ requirements.
- E. Exceed Code: The Contract Documents indicate items in excess of code requirements; in all such cases the work shall be done so that code requirements are exceeded as indicated. Such work may include coverage of areas not strictly required by code, painting, concealing of piping, access provisions for system inspections, oversized mains to accommodate future expansion, etc.

1.04 SUBMITTALS

- A. General: Comply with Section 20 05 00.
- B. Shop Drawings:
 - 1. Submit shop drawings of sprinkler system to Architect/Engineer for review; label these as "Preliminary – Not for AHJ Review". After incorporating or satisfactorily resolving Architect/Engineer review comments, submit shop drawings to AHJ for

approval; label these as "AHJ Review Set"; at same time submit informational copy to the Architect/Engineer.

- C. Product Data: Submit information on all products to be used; include evidence of product UL listing and FM approval. Submit proposed labeling and signage.
- D. Calculations: Submit all system calculations showing compliance with NFPA and AHJ requirements.
- E. Review Impacts: Architect/Engineer's review may involve changes to Contractor's design in order to comply with the Contract Documents including aesthetic issues. These changes may be substantial enough to affect drawings and calculations submitted to the AHJ and requiring a resubmittal. Contractor shall assume at least one re-submittal to the AHJ will be required and shall pay all required AHJ re-submittal and AHJ re-review fees.

1.05 GENERAL REQUIREMENTS

- A. Experience: All fire sprinkler design shall be performed by a Contractor thoroughly familiar with and knowledgeable of NFPA 13, NFPA 24, local AHJ requirements, and fire sprinkler system design and installation. By virtue of submitting a bid, the Contractor is acknowledging that he does in fact have such knowledge; and all work provided will fully comply with all the requirements of these specifications. The fire sprinkler Contractor shall be qualified, as required by the AHJ to design and install all parts of the fire sprinkler system. All portions of underground fire sprinkler piping shall be installed by a licensed fire sprinkler contractor, or by a level U certified plumbing contractor, as issued by the State's Fire Marshal's office.
- B. Professional Stamp: All fire sprinkler design drawings and calculations shall be prepared by and stamped by a licensed fire sprinkler professional as required by the AHJ.
- C. Design: System shall be Contractor designed and approved by both the Fire Marshal and Architect/Engineer. System design shall comply with Contract Documents regarding particular system configuration as may be specified or noted (i.e. routing of mains, head locations, etc.).
- D. System Description: Provide sprinkler coverage for Guard House. Extend existing fire sprinkler system up from Level 2 below to Guard House from Level 2 below. As-built plans are available for review at the City of Tacoma.
- E. Special Design Areas: Various portions of the building's fire sprinkler system require special design effort and coordination; including but not limited to: multiple design layouts, multiple calculations for these layouts, multiple meetings with code officials, multiple meetings with various contractors, multiple meetings with members of the design team, added coordination among trades, coordination with the AHJ, and coordination with the design team. The Contractor shall include in his bid costs for such special design and installation work.

1.06 REFERENCES

- A. AWWA C104: Cement Mortar Lining for Ductile Iron Pipe and Fittings for Water.
- B. AWWA C111: Rubber - Gasket Joints for Ductile Iron Pipe with Ductile Iron or Gray Iron Threaded Flanges.
- C. AWWA C151: Ductile Iron Pipe, Centrifugally Cast for Water.
- D. FM-AG: FM Global Approval Guide.

- E. NFPA 13: Standard for the Installation of Sprinkler Systems.
- F. NFPA 24: Installation of Private Fire Service Mains and their Appurtenances.
- G. NFPA 291: Recommended Practice for Fire Flow and Testing of Fire Hydrants.
- H. UL-FPD: Underwriters Laboratories Fire Protection Equipment Directory.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. General: All products shall comply with Section 20 05 00, Paragraph 2.01, Acceptable Manufacturers.
- B. Pipe and Fittings: Domestic manufacturer's only.
- C. Valves: Ames, Febco, Watts, Crane, Grinnell, Potter-Roemer, Viking, Gem, Victaulic, Nibco, Stockham, and manufacturers listed for "Sprinkler System Components".
- D. Sprinkler System Components: Reliable, Viking, Potter-Roemer, Gem, Star, Victaulic, Tyco.

2.02 PIPE AND PIPE FITTINGS

- A. Pipe and Fittings: Pipe shall be steel or copper; in accordance with NFPA 13. Fittings shall be suitable for 175 psi working pressure, and shall be cast iron or malleable iron screwed, grooved, welded, or soldered; in accordance with NFPA 13. Pipe and fittings shall have a CRR of 1.0 or better. Pipe and fittings ran outside and exposed to the outdoors shall be galvanized type. Flexible braided steel piping serving individual heads may be used where acceptable to the AHJ, and such piping is FM approved and UL listed for the application.

2.03 VALVES

- A. Valves: Rated for 175 psi water working pressure, UL listed and FM approved, complying with NFPA 13, having configuration and accessories to suit application.

2.04 SPRINKLER HEADS

- A. Pendant: Shall be low profile, glass bulb type, with temperature rating to suit application and factory chrome plated finish. Where installed through ceiling, provide with escutcheons, two piece adjustable recessed type, with factory chrome plated finish to match sprinkler heads. Quick response type.
- B. Upright: Shall be glass bulb type, with temperature rating to suit application, and factory chrome plated finish. Quick response type.
- C. Sidewall: Shall be glass bulb or fusible solder type, with temperature rating to suit application, and factory chrome plated finish. Quick response type.

2.05 ACCESSORIES

- A. Sway Bracing/Restraints: Contractor fabricated of riser clamps, Schedule 40 pipe and pipe fittings, all welded construction, size and configuration to suit application.
- B. Hangers/Supports: See Section 20 05 29.

- C. Sleeves Seals: See Section 20 05 30.
- D. Labeling: Provide labels as required by AHJ, fabricated of material as required by the AHJ, with lettering type and information as required by the AHJ.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General: Installation of all equipment shall be performed by a Contractor specializing in this work and subject to Owner and Fire Marshal approval. Install all items in accordance with code, manufacturers' recommendations, and best construction practices.
- B. Pipe Routing: Select pipe routing that maintains full personnel access to building equipment and systems, does not requiring stepping over or bending down to cross sprinkler piping, and does not impede traffic through garage. Piping shall run parallel to building structure in a neat, workmanlike manner.
- C. Escutcheons: Provide chrome plated escutcheon plates at exposed pipe penetrations of all ceilings, floors and walls.
- D. Conflict Prevention: Review all building and system plans carefully and arrange the fire sprinkler work to avoid interferences and conflicts with other trades. Discuss and coordinate proposed sprinkler routing with other trades.
- E. System Drainage: Special care shall be taken to ensure that entire sprinkler system is drainable in accordance with code. Provide drain valves as required (with labels) to allow for drainage.
- F. Hangers and Supports: Shall comply with NFPA 13 and Section 20 05 29. See also structural drawings for any limitations/requirements of supports and attachments to structure.

3.02 SYSTEM DESIGN

- A. General: System shall be Contractor designed in accordance with NFPA 13, AHJ requirements, and additional requirements as cited in the Contract Documents.
- B. Hydraulically Designed: Base system design on hydraulic calculations in accordance with recognized engineering practices and standards, acceptable to the AHJ and Engineer.

3.03 TESTING

- A. Testing: The systems shall be hydrostatically and operationally tested in accordance with the requirements of NFPA 13 and the AHJ. Any changes required to meet time or flow test requirements shall be made without additional cost to the Owner. Certificates of acceptance shall be submitted to the Architect/Engineer.

3.04 OPERATING AND OWNER INSTRUCTIONS

- A. O&M Manual: See Division 01.
- B. Owner Instructions: The Owner or his representative shall be instructed by the Sprinkler Contractor in the operation of the system. The instruction shall be given by Contractor's personnel who are considered qualified in the opinion of the Architect/Engineer and shall be for a minimum of two hours. Instruction shall include location of all valves, drains, and pipe

routing, as well as proper maintenance and testing procedures.

END OF SECTION

**ELECTRICAL SPECIFICATIONS
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DIVISION 26 - ELECTRICAL

SECTION 26 01 00 ELECTRICAL GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. General requirements specifically applicable to Division 26 in addition to provisions of General Conditions, Supplementary Conditions, and Division 01.
- B. General requirements of this section also apply to Divisions 27 and 28.

1.02 SCOPE OF ELECTRICAL WORK

- A. Provide electrical systems and Work described, identified, specified, referenced, and shown in the Project Documents that are covered under Divisions 26, 27, and 28 of the Construction Specifications Institute (CSI) and/or as otherwise regulated by national, state, and local electrical codes. Electrical Work includes providing all equipment, materials, devices, appurtenances, and accessories necessary to provide complete and operating systems according to the intent of Project Documents.
- B. Electrical work is not limited to Division 26, 27 and 28 specifications and what is shown on the electrical drawings. The Contractor is responsible to review all Project Documents for additional Electrical Work and requirements and to include this work as part of their scope under the Contract.

1.03 REGULATORY REQUIREMENTS

- A. Comply with requirements of the following codes as adopted and supplemented by authority having jurisdiction:
 - ANSI/NFPA 70 - National Electric Code (NEC)
 - NFPA 101 - Life Safety Code
 - International Building Code (IBC)
 - International Mechanical Code (IMC)
 - WAC 296-46B - Washington State Electrical Safety Standards, Administration, and Installation
 - Washington State Energy Code (WSEC)
- B. Comply with additional codes and regulations referenced in other sections.
- C. Comply with additional codes and regulations required by authority having jurisdiction.
- D. Obtain and pay for permits, plan review, and inspections from authorities having jurisdiction over work included under applicable Division Sections.
- E. Include all testing, shop drawings, and documentation required by the inspection authorities for permitting and final approval.

1.04 SUBMITTALS

- A. Comply with requirements of Division 01. Unless otherwise specified, furnish product data and shop drawings to Architect/ Engineer within 30 calendar days from date of contract signing as follows:

1. Product information sheets shall be neat, readable, 8.5 x 11 inch, submitted in PDF format. Generic product sheets with multiple products or product descriptions shall clearly highlight or otherwise indicate which product is being furnished.
 2. Furnish product submittals with index tabs between categories or in separate submittals that correspond to each section of the specifications. Transmittal shall indicate name of the Project, Owner, Architect, Engineer, Contractor, and Date of Submittal.
 3. Furnish system design shop drawings in PDF format. Title block shall include Project, Owner, Contractor, and Date of Submittal.
 4. Furnish product data and shop drawings specifically indicating any conflict or deviation from requirements of contract documents.
- B. Confirm dimensions, ratings, and specifications of electrical materials, devices, fixtures, and equipment conform to project requirements prior to furnishing submittals. Coordinate electrical requirements with utilization equipment submitted under other sections and verify that voltage, phase, and rating are compatible with work shown in the electrical project documents.
- C. Do not order materials or commence Work until applicable submittal has been reviewed and the Architect/Engineer has approved or taken other appropriate action.

1.05 SUBSTITUTIONS

- A. Comply with requirements of Division 01. Products specified by naming one or more manufacturers establishes a basis for quality, styling, capacity, and function. Unless otherwise specified, written requests for substitution must be received at least 14 days prior to Bid Opening by Architect/Engineer who will determine acceptability of proposed substitution. Written acceptance must be obtained from Architect/Engineer prior to Bid Opening.
- B. Substitution requests may be submitted for any manufacturer or named product unless specified as "no substitute".
- C. Substitution approval does not relieve the Contractor of complying with the work requirements or the concept and intent of the project documents. Pay for any and all additional project costs that may be caused by Contractor requested substitutions, regardless of whether or not additional costs are overlooked, missed, or unforeseen, and regardless of when substitutions may be approved.

1.06 RECORD DOCUMENTS

- A. Comply with requirements of Division 01. Maintain at project site one set of clean, dry, and legible red-lined record drawings for submittal at Contract Close-out. Record information concurrently with construction progress.
- B. Indicate electrical changes in the contract documents. Include change orders, revised branch circuit and feeder wiring layouts, revised circuit identification, pull & junction boxes added during construction, and actual dimensioned location and routing of each underground conduit on record drawings.

1.07 LABELING

- A. Where labeling that includes room names and numbers is required for any system to identify devices or for programming purposes, use final room names and numbers determined during construction. Verify room names and numbers with Architect prior to manufacturing labels or programming software.

1.08 OPERATION AND MAINTENANCE MANUALS

- A. Comply with requirements of Division 01. Unless otherwise specified, furnish one labeled flash drive in PDF format and two duplicate hard copy printed sets of Operation and Maintenance Manuals prior to completion of contract. Submit hard copy manuals in labeled and indexed 3-ring binder(s).
- B. Include the following information as applicable:
 - 1. Names, addresses, and telephone numbers of the contractor, the installing sub-contractor, and the local representative for each system or equipment.
 - 2. All approved product data and shop drawings.
 - 3. Identify all manufacturer warranties which exceed one year.
 - 4. Model number and serial number of each piece of equipment provided.
 - 5. Data from test results performed under the Contract.
- C. Operation and maintenance data shall include complete parts lists, installation and maintenance instructions, safety precautions, operation sequence describing start- up, operation, and shut-down, internal and interconnecting wiring and control diagrams with data to explain detailed operation and control, and testing methods for each system and item of equipment.
- D. Furnish a draft copy of Operations and Maintenance Manual for Architect/Engineer review and incorporate comments prior to final submittal. Allow 14 days for Architect/ Engineer review.

1.09 CONFLICTS

- A. Notify the Architect/Engineer of any conflicts or discrepancies before proceeding with any work or the purchasing of any materials related to the conflict or discrepancy until requesting and obtaining written instructions from the Architect/Engineer on how to proceed. Where conflicts occur, the most expensive and stringent requirement as judged by the Architect/Engineer shall prevail. Any work done after discovery of such discrepancies or conflicts and prior to obtaining the Architect/Engineer's instructions on how to proceed shall be done at the Contractor's expense.

1.10 WARRANTY

- A. In addition to requirements covered under General Conditions or Division 01, include manufacturer product warranties that exceed one year. Assemble or list warranties that exceed one year in Operation and Maintenance Manuals indicating start date. Certificates of extended warranty shall identify the Owner as the beneficiary.
- B. If the Electrical Contractor does not have offices located within 150 miles of the project, provide a service/warranty work agreement with a local electrical subcontractor approved by the Owner. The service/warranty work agreement shall extend for the contract warranty period, and a copy shall be included in the Operation and Maintenance Manuals.

1.11 INTENT OF PROJECT DOCUMENTS

- A. Drawings and specifications are complementary and what is called for in either is binding as if called for in both.
- B. The drawings are diagrammatic and show the general arrangement of the construction and do not attempt to show all features of work, exact construction details, or actual routing of conduit and cable. Provide all necessary supports, off-sets, bends, risers, fittings, boxes,

wiring, and accessories which are required for a complete and operating installation. Determine locations for required electrical outlets and connections prior to rough-in base on equipment product and installation submittal data and/or review of equipment on site.

- C. The level of design presented in the documents represents the extent of the design being furnished to the Contractor; any additional design needed to perform the Work shall be provided by the Contractor. All design by the Contractor shall be performed by individuals skilled and experienced in such work, and where required by local code (or elsewhere in the documents) shall be performed by engineers licensed in the State where the project is located. Include in bid the costs of all such project design; including engineering, drafting, coordination, and all related activities and work. Contractor provided design services shall be included for but not limited to bidder design specifications, temporary electrical systems, layout routing to install the Work and share project space with other building systems, hanger and support systems, seismic bracing, preparation of shop drawings, locating and identifying requirements for equipment and fixture terminations, and methods/means of accomplishing the work.

1.12 COORDINATION

- A. Examine architectural, civil, structural, and mechanical drawings and specifications and consult with other trades, as required to coordinate use of Project space and sequence of installation.
- B. Arrange wiring and equipment to avoid interference with other work and to maximize accessibility for maintenance and repairs.
- C. Coordinate with suppliers and installers to obtain product electrical data, shop drawings, and installation requirements for systems, equipment, and products furnished by Owner and/or other trades as required perform electrical work.
- D. Contractor is responsible ensure that equipment, fixtures, and devices being furnished and installed shall fit the space available, taking into account connections, service access, and clearances required by product manufacturer and/or Code. Contractor shall make the necessary field measurements to ascertain the space requirements for proper installation, and shall furnish and/or install equipment so that final installation meets the intent of the Project Documents. If approval is received by Addendum or Change Order to use other than the originally specified items, Contractor shall be responsible for specified capacities and for ensuring that items to be furnished will fit the space available.
- E. Contractor is responsible to review all the Project Documents and approved shop drawings provide under other divisions to identify and resolve conflicts between electrical systems and building construction, equipment, cabinets, counters, trim, and special finishes, prior to rough-in.
- F. Facilitate coordination between low voltage system sub-contractors during construction. Include time for a minimum of one meeting with all sub-contractors prior to building rough-in to review requirements for each system. Include a second meeting with all sub-contractors to review requirements for all systems utilizing IP structured cabling prior to cover.

1.13 REQUIREMENTS FOR EQUIPMENT FURNISHED UNDER OTHER SECTIONS OR BY OWNER

- A. Provide power wiring, disconnect switches, electrical connection of equipment, installation of furnished electrical controllers, parts, and accessories, and field wiring for systems, equipment, and products furnished under other divisions or by Owner. Install controllers, operator stations, and control devices such as limit and temperature switches furnished with equipment.

- B. Review equipment submittals prior to electrical rough-in and installation. Verify location, rating, size, type of connections, and required space requirements. Coordinate field wiring requirements and details with supplier and installer. Notify Architect/Engineer of conflicts between requirements for actual equipment being furnished and equipment indicated in contract documents prior to commencing Work.
- C. Make final connections to equipment. Provide cord and plug where required for plug-in connection.

1.14 DEFINITIONS

- A. Electrical terms used in these specifications are as defined in NEC Art. 100 unless otherwise noted.
- B. Abbreviations: Where not defined elsewhere in the Contract Documents, shall be as defined in RS Means Illustrated Construction Dictionary.
- C. Accessible Ceiling: Signifies access that requires the removal of an access panel or similar removable obstruction.
- D. As Required: As necessary to form a safe, neat, and complete working installation (or product), fulfilling all the requirements of the specifications and drawings and in compliance with all codes.
- E. Concealed: Hidden from view as in walls, trenches, chases, furred spaces, crawl spaces, unfinished attics, and above suspended ceilings.
- F. Conduit: Includes conduit and tubing raceways.
- G. Coordinate: Accomplish the work with all others that are involved in the work by directly discussing the work with them, arranging and participating in special meetings with them to discuss and plan the work being done by each, obtaining and completing any necessary forms and documentation required for the work to proceed, reaching agreement on how parts of the work performed by each trade will be installed relative to each other both in physical location and in time sequence, exchanging all necessary information so as to allow the work to be accomplished with a united effort in accordance with the project requirements.
- H. Equipment Connection: Make branch circuit connection, mount and connect control devices as required. Provide disconnect and overcurrent protection when required by NEC and IMC, if not otherwise indicated or furnished with equipment.
- I. Exposed: Exposed to view in any room, hallway, passageway or outdoors.
- J. Finished Areas or Spaces: Areas and/or spaces receiving a finish coat of paint on one or more wall surface.
- K. Furnish: Obtain and/or prepare and deliver to the project.
- L. Indicated: Shown, scheduled, noted, or otherwise called out on the drawings.
- M. Install: Enter permanently into the project complete and ready for service.
- N. Open Cable or Wiring: Conductors above grade not installed in conduit or raceway.
- O. Panel: Distribution panelboard, lighting and appliance panelboard, load center, and/or low voltage cabinet.

- P. Provide: Furnish and install complete and ready for service.
- Q. Wiring: Conductors in raceway or an approved cable assembly.
- R. Verify: Obtain, by a means independent of the project Architect/Engineer and Owner, the information noted and the information needed to properly perform the work.

1.15 SCHEDULE OF VALUES

- A. Provide Schedule of Values for use by Architect/Engineer to evaluate progress payment requests during construction.

PART 2 - PRODUCTS

2.01 MATERIALS, EQUIPMENT

- A. General: Furnish only products that are new and free from defects with a manufacture date that is less than six months from date of installation. Where product and applicable software updates or upgrades are available from the manufacturer, furnish the latest version unless otherwise specified. Furnishing discontinued products and/or products of manufacturers who are no longer in business is not permitted.
- B. Listing and Labeling: Furnish and install only products that are listed and labeled by one or more of the following testing laboratories as approved by the Authority Having Jurisdiction:
 - Underwriter's Laboratories, Inc. (UL)
 - ETL Testing Laboratories, Inc. (ETL)
 - Factory Mutual (FM)
- C. Each specified product and system to be furnished shall be from a single approved manufacturer. Providing multiple product brands or manufacturers for each type or category, or for multiple units of the same specified product and/or system, is not permitted.
- D. Products shall be delivered, handled, and stored per manufacturer recommendations. Protect fixtures, materials, and equipment from rain, water, dust, dirt, snow, and damage. Do not install products that have marred, scratched, deformed, or otherwise damaged. Do not install products that have been wet or exposed to the weather prior to assembly and/or installation.

PART 3 - EXECUTION

3.01 WORKMANSHIP

- A. Electrical work shall conform to requirements of ANSI/NECA 1-2015, Standard Practice of Good Workmanship in Electrical Construction.

3.02 INSTALLATION

- A. Provide all electrical work as specified and shown in the Project Documents. Provide all labor, equipment, material, accessories, and testing for electrical systems complete and operating. Include all scaffolding, rigging, hoisting, and services necessary for delivery and installation of materials and equipment.

- B. Include all required software applications, licensing and associated system programming for electronic products. Provide all software to owner for onsite programming and interfacing.
- C. Provide as part of the Electrical Work all hangers, brackets, supports, framing, backing, accessories, incidentals, not specifically identified the project documents, but required to complete the system(s) in a safe and satisfactory working condition.
- D. Quantity of materials and layout of the Work shall be provided based on field measurement of the actual project conditions and shall not be based on plan dimensions.
- E. Provide all testing and documentation of electrical systems as required to demonstrate compliance with the Project Documents.

3.03 CUTTING AND PATCHING

- A. Provide cutting and patching to complete electrical work and to provide openings in elements of Work for electrical penetrations. Comply with requirements of Division 01.
- B. Locate and execute cuts so as not to damage other work or weaken structural components. Core drill or saw cut rigid materials.
- C. Patch to restore to original condition. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

END OF SECTION

**SECTION 26 04 00
EXISTING SYSTEMS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Demolition of systems applicable to Division 26.
- B. Requirements for remodeling applicable to Division 26.
- C. Requirements of this section also apply to Divisions 27 and 28.

1.02 EXISTING CONDITIONS

- A. The drawings show portions of existing electrical systems which are to remain, be removed, or be modified under the Contract. Concealed features of existing systems are based on field observation. No guarantee is made as to their correctness.
- B. Contractors shall visit the project site prior to bidding and become familiar with the existing conditions and all other factors which may affect the execution of the work. Include all costs related to existing site conditions in the initial bid proposal.
- C. Failure to visit the project site prior to bid does not relieve the Contractor of the responsibility to provide all required work and a complete installation within the intent of the Contract Documents.

1.03 POWER AND SIGNAL OUTAGES

- A. The facility will continue normal operations during the construction work. The Contractor shall schedule power and signal outages with the Architect/Engineer. Include coordination, identification of affected areas, work schedule, and re-energizing of electrical systems with minimal disruption to facility operations.
- B. Unscheduled power or signal outages to Owner occupied areas and systems essential to facility operation or life safety shall not be permitted at any time. In the event that the Contractor's work causes or contributes to a power outage or other system fault, the Contractor is responsible for immediately correcting the problem.
- C. Schedule power and signal outages for evenings, weekends, or holidays unless otherwise approved; include costs for overtime and work outside regular hours.

1.04 FIRE ALARM SYSTEM

- A. Maintain and operate the existing fire alarm system during construction. Comply with alarm, incident response, and fire watch requirements of the Authorities Having Jurisdiction for all areas served by the system. Plan and provide fire watch and/or temporary wiring where new construction interrupts required system operation.
- B. Coordinate a time with Owner when no events are scheduled to swap system to new location.
- C. Coordinate all planned shutdowns and tests of the fire alarm system with the Fire Department and Alarm Reporting Center. Notify the Alarm Reporting Center of false alarms that occur during construction as required to mitigate Fire Department response.

- D. Provide investigation, correction, and required repairs to the alarm system for false alarms and system trouble that occur during the project and for system failures caused by the Work. Fines and penalties for excessive false alarms that occur during the Project shall be the responsibility of the Contractor.
- E. The Owner shall provide reimbursement for expenses associated with false alarms, system trouble, and system failure if the contractor can satisfactorily demonstrate that the incidents are not related to the Project.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. New and Replacement Materials & Equipment: As specified in applicable sections, except product manufacture shall match existing for minor construction and for accessories to equipment that remains.
- B. Materials and Equipment for Patching: Match existing products.
- C. In finished spaces provide surface metal raceway systems as specified in other sections where existing construction does not permit concealed installation.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Field verify wiring and cabling for existing power and signal systems back to source of supply as required to perform Work.
- B. Provide temporary wiring and connections to maintain existing systems interrupted by new construction.
- C. Carefully remove, store, and reinstall existing removable ceiling tiles where access to perform work is required.
- D. Carefully remove, store, and reinstall existing light fixtures where access to perform work is required. Provide additional fixture support and seismic bracing for reinstalled fixtures where required to meet current Code.
- E. Cut and Patch conduit penetrations and required holes to access work at walls.

3.02 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Remove, relocate, and extend existing systems head end equipment to new location. For selective demolition, refer to architectural and mechanical plans and include electrical demolition to support removal and replacement work not otherwise indicated in electrical drawings.
- B. Electrical demolition includes the disconnecting, removal, and disposal of devices and equipment where indicated, along with associated wiring.
- C. The following shall be considered as abandoned unless otherwise indicated:

1. Conduit containing conductors or cable that have been disconnected from a source of supply or left empty by the removal of conductors.
 2. Open conductors or cable that have been disconnected from a source of supply.
- D. Remove abandoned wire and cable for power and signal systems to source of supply.
- E. Remove abandoned conduit, cable, and outlets where exposed and within accessible ceiling, attic, crawl, plenum, and opened wall spaces. Cut conduit flush with walls and floors; patch surfaces in finished spaces.
- F. Disconnect power to utilization equipment being removed.
- G. Maintain access to existing electrical systems to remain active. Modify installation or provide access panels as appropriate.
- H. Replace, modify or extend existing outlet boxes to meet volume requirements. Cut surfaces as required to replace (or modify) existing outlet boxes and to install supports for new boxes and fixtures and patch to match adjacent surface.

3.03 DISPOSITION OF MATERIALS

- A. Prior to start of demolition, coordinate with Owner to identify materials and equipment for salvage. Disconnect and remove items to be salvaged and deliver to an area on site designated by the Owner. Disconnect, remove, and handle salvage material and equipment in a manner so as not to damage or otherwise render unusable.
- B. Materials and equipment removed and not reused or salvaged to the Owner shall become the property of the Contractor unless otherwise indicated. Remove such material and equipment from the Owner's property and dispose legally off site.

3.04 NAMEPLATES AND CIRCUIT DIRECTORIES

- A. Provide nameplates for existing distribution equipment to indicate new and revised equipment, circuit, and load designations.
- B. Update panelboard circuit directories to indicate changes and additions to each circuit. Updated and existing circuits shall be typewritten on new removable circuit index cards.
- C. Nameplates and circuit directories shall comply with requirements of Section 26 20 00.

END OF SECTION

**SECTION 26 05 00
BASIC MATERIALS AND METHODS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Conduit and Fittings.
- B. Building Wire and Cable.
- C. Wiring Connections and Terminations.
- D. Boxes.
- E. Wiring Devices.
- F. Cable Tray.
- G. Supporting Devices.
- H. Requirements for Fire Rated Construction.

1.02 SUBMITTALS

- A. Submit product data for conduit fittings, wire and cable, watertight connectors, wiring devices, and cable tray.
- B. Submit shop drawings for installation of cable tray, including wire basket type.

1.03 OPERATION AND MAINTENANCE DATA

- A. Include data for wiring devices, and cable tray in Operation & Maintenance Manuals.

PART 2 - PRODUCTS

2.01 CONDUIT

- A. Rigid Steel Conduit (RGS): ANSI C80.1; hot dipped galvanized.
- B. Intermediate Metal Conduit (IMC): Hot dipped galvanized.
- C. Electric Metallic Tubing (EMT): ANSI C80.3; galvanized tubing.
- D. Flexible Metal Conduit: Galvanized steel. Heavy wall except reduced wall may be used where concealed in building construction.
- E. Liquid Tight Flexible Metal Conduit: Galvanized steel, PVC jacket.

2.02 FITTINGS

- A. RGS and IMC Conduit: ANSI/NEMA FB 1; threaded type. Provide hubs and connectors with insulated throat for conduit larger than 3/4 inch diameter.
- B. EMT Conduit: ANSI/NEMA FB 1; steel, compression type. Crimp-on, drive-on, indenter, and set screw type prohibited. Provide connectors with insulated throat for conduit larger than 3/4 inch diameter. Provide raintight fittings for conduit installed outdoors.
- C. Flexible Conduit: ANSI/NEMA FB 1; steel, single screw squeeze type. Screw in type prohibited.
- D. Liquid tight Flexible Conduit: ANSI C33.84, steel. Provide PVC coated fitting where installed outdoors.
- E. PVC Conduit: NEMA TC 3; solvent welded type, same manufacture as conduit.
- F. Water and Vapor Conduit Sealants: Hydra-Seal S-50 conduit sealing putty or approved; Tyco/Rachem/TE blank duct plug or approved; Polywater FST conduit sealing foam system or approved.
- G. Corrosion Protection: Zinc plated minimum indoors and hot dipped galvanized minimum outdoors and indoor wet locations for all metal fittings and accessories.

2.03 WIRE AND CABLE

- A. Copper Building Wire, Interior: Type THWN-2, 600 volt insulation; conductors 8 AWG and larger shall be stranded. Type XHHW-2 may be substituted for conductor sizes 4 AWG and larger.
- B. Copper Building Wire, Outdoors: Type THWN-2, 600 volt insulation; conductor 8 AWG and larger shall be stranded.
- C. Flexible Cords: Oil resistant thermoset insulated Type SO multi-conductor with identified equipment grounding conductor, sized for connected load of equipment and rating of branch circuit overcurrent protection.

2.04 WIRE CONNECTORS

- A. Connectors for Wire Size 10 AWG and Smaller: Insulated steel spring twist-on pressure connector with plastic cap. Outdoors use watertight type with prefilled sealant gel.
- B. Connectors for Wire Size 8 AWG and Larger: Solderless mechanical or compression type with pre-formed or shrink sleeve insulated cover. Outdoors make watertight using shrink sleeve or pigtail cap and sealing mastic.
- C. Outdoor Taps Below Grade for Wire Size #6 AWG and Larger: IlSCO PED series underground multi-tap, wire range and number of ports as required.
- D. Gutter/Wireway Taps for Wire Size #6 AWG and Larger: IlSCO type PDB series AL/CU lug type distribution block, number of poles and quantity/size of primary/secondary lug ports as required for the application.
- E. Connectors at Pole Bases: WSDOT Spec 9-29.7; waterproof quick-disconnect. Provide fused type for ungrounded conductors.

2.05 BOXES

- A. Outlet Boxes: ANSI/NEMA OS 1; galvanized sheet steel, with ½-inch male fixture studs or plaster rings as required.
- B. Surface Outlet Boxes Below 8 Feet: Cast aluminum or malleable iron, threaded hubs.
- C. Surface Outlet Boxes for Outdoor and Wet Locations: Cast aluminum with baked enamel or epoxy finish, gasketed cover, stainless steel hardware. Outlet boxes shall have threaded hubs.
- D. Concrete and Masonry Boxes: Galvanized steel, suitable for the purpose.
- E. Junction and Pull Boxes: Outlet box with blank cover except boxes larger than 4 inch square shall be screw cover type, galvanized steel with grey enamel finish, NEMA 1 indoors and NEMA 3R outdoors, unless otherwise indicated.
- F. Fire Rated Construction: Recessed outlet boxes and rough-in cans that are installed in 2 hour rated area separation walls shall be UL listed with 1 ½ hour rating label.
- G. Barriers: Provide permanent barriers in outlet boxes to separate adjacent wiring devices where voltage exceeds 300 volts. Provide permanent voltage separation barriers in outlet and junction boxes to separate wiring above 100 volts from wiring below 100 volts and where otherwise required by Code.
- H. Color Coding of Device and Junction Boxes for Special Systems: Field painted or otherwise manufactured in the specified color, both inside and outside of box and cover. Provide color identification for the following electrical systems: Fire Alarm System - RED, Emergency Systems (NEC 700) - ORANGE.

2.06 WIRING DEVICES

- A. Wall Switches: Hubbell 1221, Leviton 1221, Pass & Seymour 20AC1, Cooper 2221; specification grade, 20 ampere, 277 volt, quiet type. Single pole, double pole, 3-way, 4-way as required. Color: Ivory.
- B. Duplex Receptacles: Specification grade 5362 series, NEMA 5-20R, grounding type, as manufactured by Hubbell, Leviton, Pass & Seymour, Cooper. Color: Ivory, except receptacles on emergency circuit shall be red.
- C. Duplex Receptacles, Controlled: Same manufacturer, rating, and style as specified for duplex receptacles except devices shall have special purpose identification symbol and permanently marked with the word "controlled" visible on face of each receptacle automatically controlled. Color: as selected.
- D. Ground Fault Circuit Interrupter (GFCI) Receptacles: Same manufacture, rating, and color as duplex receptacles except devices shall comply with UL 943, Class A, with self test.
- E. Duplex Receptacles, Weather Resistant for Damp and Wet Locations: Same manufacture, rating, and color as duplex and GFCI receptacles except devices shall be UL listed as weather resistant and permanent special purpose identification shall be visible on the device.
- F. Special Purpose Receptacles: NEMA WD 5, same manufacture as duplex receptacles; premium specification grade, grounding type, NEMA configuration as indicated on project plans, black color. Provide matching plug for each receptacle.
- G. Flush Mounted Device Plates: Sierra type 302 stainless steel, satin finish.

- H. Surface Mounted Device Plates: Raised galvanized steel on steel boxes; cast or stamped sheet aluminum on cast boxes.
- I. Damp and Wet Location Device Plates: ANSI/UL 514D; Commercial grade, low profile, lockable, die cast metal cover assembly, listed as weatherproof when in use and identified as extra duty. Hubbell/TayMac MX series or approved.

2.07 CABLE TRAY FOR COMMUNICATIONS AND SIGNAL CIRCUITS

- A. Cable Tray: NEMA VE 1, class 12A 12", aluminum open ladder type with 9 inch rung spacing; 4 inch deep with side rails.
- B. Accessories: Provide manufacturer's standard elbows, tees, clamps, connectors, splice plates, hangers, brackets, supports, and attachments. Elbows and tees shall have 24 inch radius.
- C. Wall Sleeves: Galvanized steel wall sleeve accessory, flanged each end, and sized to accommodate cable tray installed.

2.08 SUPPORTING DEVICES

- A. Metal Conduit Clamps & Straps: Steel, screw type; zinc or cadmium plated minimum indoors, hot dipped galvanized minimum outdoors.
- B. Support Channel: Slotted 12-gauge steel channel with fittings, fasteners, brackets, clamps, floor plates, and accessories required; Pre-galvanized zinc coated (G90) indoors, ASTM 123 hot dipped galvanized outdoors.
- C. Fasteners: Expansion anchors in concrete and solid masonry; toggle bolts in hollow masonry, plaster, or gypsum board wall construction; sheet metal screws in metal construction; wood screws in wood construction; set screw type beam clamps on steel columns and beams; U.L. listed clips for metal studs. Metal parts and accessories to be zinc or cadmium plated minimum indoors and hot dipped galvanized minimum outdoors.
- D. Support Wires: Support wires above accessible ceiling grids, steel #12 AWG minimum.

2.09 ACCESSORIES

- A. Air-Vapor Barriers:
 - 1. Pre-molded polyethylene box installed in all exterior framing walls (thermal envelope) around recessed outlet boxes. Lessco or equal.
 - 2. Foam electrical outlet gaskets for installation between device plate and finished outlet. Conceal behind device plate. Outlet gaskets or equal.
- B. Pulling Wire:
 - 1. Interior; continuous fiber pulling line, 190# tensile strength.
 - 2. Below grade; Polyester measuring pulling tape 5/8 inch wide, 1800# tensile strength. Muletape.

2.10 FIRE RATED CONSTRUCTION

- A. Products for Fire Stopping to Seal Around Enclosures and Annular Space between Conduit and Building Construction at Conduit Penetrations: ANSI/UL 1479; Comply with requirements of Division 07.

- B. Conduit Sleeves for Open Cable: ANSI/UL 1479; Fire stop conduit sleeve kit, with mounting escutcheons, gaskets, end bushings, warning labels, and non-hardening fire stop putty. SpecSeal READY SLEEVE, FS100 (1 inch diameter sleeve) and FS200 (2 inch diameter sleeve), or approved.
- C. Pathway Sleeves for Open Cable, Greater than 2 Inch Diameter: ANSI/UL1497; Fire stop rectangular sleeve kit, 3-inch wide by 3-inch high by 10.5-inch length, expandable in 6-inch increments, self-contained integral fire sealing system that automatically adjusts to the installed cable loading. Provide radius control modules (each end of pathway), single or multiple gang wall kits, and expansion modules as required. Specified Technologies, Inc., EZ-Path System Series 33 or approved.

PART 3 - EXECUTION

3.01 WIRING METHODS

- A. General:
 - 1. Fixed wiring shall be conductors installed in conduit.
 - 2. Conceal all wiring within construction unless otherwise noted on drawings or specifically authorized by the Architect/Engineer.
 - 3. Where contractor wiring methods require the application of conductor ampacity adjustment or correction factors under NEC 310.15, the contractor shall submit calculations that show Code compliance, except the adjusted ampacity of the conductors installed shall not be less than the circuit overcurrent device rating shown or specified.
 - 4. Conduit sizes shall not be reduced to smaller size than shown or otherwise noted on plans.
 - 5. Feeders shown or otherwise noted on plans shall not be combined to share a common conduit homerun. Branch circuit homeruns shown or otherwise noted on plans shall not be combined to share a common conduit with other circuits.
 - 6. Device Plates: It is the electrical contractor's responsibility to ensure that all line voltage and low voltage system faceplates and visible trim pieces are the same color. Exception: Where stainless steel device plates are used for line voltage systems, low voltage systems may use non-metallic plates of the same color.
- B. Conduit Requirements:
 - 1. Rigid Steel Conduit (RGS): May be used in all areas. Required at penetrations thru fire rated construction rated greater than 1 hour.
 - 2. Intermediate Metal Conduit (IMC): May be used in all areas except where RGS is required or indicated.
 - 3. Electrical Metallic Tubing (EMT): May be used in dry and damp locations where not subject to damage. May not be used in concrete, where in contact with earth, or where RGS is required or indicated. May not be used for service entrance conductors inside a building. Maximum trade size 2 inches.
 - 4. Flexible Conduit: May be used concealed in casework and where concealed in walls, up to 1 inch maximum trade size. Required for final equipment connections (maximum length 36 inches), to recessed lighting fixtures from an outlet box (maximum length 72 inches), and where raceway passes thru seismic joints. Use liquid tight in damp or wet locations.
- C. Wire and Cable Requirements:
 - 1. Use copper conductors.

3.02 SUPPORT - GENERAL

- A. Support wiring, conduit, raceways, boxes, equipment, and fixtures from building structural members. Provide additional framing, channel, or listed support attachments as required to span or support between structural members and to avoid interference from pipes, ducts, and other equipment.
- B. Do not violate the integrity or exceed the capacity of the building structure used for support. Provide/fabricate additional support elements to transmit loads to the floor or other parts of the building structure that can carry the load as approved by the Architect/Engineer.

3.03 CONDUIT SIZING, ARRANGEMENT, AND SUPPORT

- A. Minimum conduit trade size 1/2-inch diameter except all homeruns and where installed below grade outdoors conduits shall be 3/4-inch minimum diameter. Prewired 3/8 inch diameter flexible conduit not to exceed 72 inches in length may be used for fixture whips from an outlet box to recessed light fixture.
- B. Arrange conduit to maintain headroom and present a neat appearance.
- C. Route conduit parallel and perpendicular to walls and adjacent piping.
- D. Maintain 12-inch clearance between conduit and heat sources such as flues, steam pipes, and heating appliances.
- E. Locate holes in joists within center third of member depth measured from the edge and at least 24 inches from load bearing points. Maximum hole diameter one inch.
- F. Support conduits from building structure with conduit straps or rods and hangers. #8 solid wire and CADDY clips may be used to hang 3/4-inch diameter conduit and smaller above accessible ceiling spaces.
- G. Group conduit in parallel runs where practical and use conduit rack constructed of steel channel with conduit straps or clamps. Provide space for 25 percent additional conduit.
- H. Do not support conduit with perforated pipe straps or tie wraps. Remove all wire used for temporary conduit support during construction, before conductors are pulled.
- I. Do not bore holes in truss members or notch structural members.
- J. Steel conduit installed as part of a 2 hour fire rated wiring assembly shall be supported 5 feet on center where required by the cable system installation requirements.

3.04 CONDUIT INSTALLATION

- A. Use conduit hubs or sealing locknuts for fastening conduit to cast boxes and for fastening conduit to sheet metal boxes in damp locations.
- B. Use conduit bodies to make sharp changes in direction, as around beams.
- C. Install insulated bushings on each end of conduit larger than 1 inch.
- D. Use suitable conduit caps to protect installed conduit against entrance of dirt and moisture.
- E. Install pull wire in empty conduits.

- F. Install flexible conduit thru oversized bushed sleeve or cored opening where conduit crosses building wall expansion or seismic joints. Provide up to 54 inches of flexible wiring with 6 inches minimum of conduit slack each side of the wall assembly to allow for free movement across the joint.

3.05 CONDUIT PENETRATIONS

- A. Exterior Walls: Core drill or cast sleeve for each conduit one size larger than conduit diameter. Seal all openings at each penetration with acrylic weatherproof caulking suitable for painting. Seal with "Chase-Foam" silicone sealant or other approved method acceptable to Architect/Engineer.
- B. Interior Walls and Partitions: Cut one size larger than conduit diameter. Seal all openings at each penetration with low VOC level general purpose interior sealant as specified in Section 07900.
- C. Fire Rated Construction: Comply with requirements of paragraph, FIRE RATED CONSTRUCTION, this specification.

3.06 CONDUCTOR INSTALLATION

- A. Minimum Conductor Size: #12 AWG, except #10 AWG minimum for outdoor and exterior building lighting circuits and #14 AWG minimum for control circuits and for lighting fixture taps not to exceed 72 inches.
- B. Splice conductors only in junction or outlet boxes.
- C. Arrange conductors neatly at termination such that a clamp-on ammeter may be used.
- D. Clean conduit free of debris before conductor installation; install conductors using pulling lubricant.

3.07 CONDUCTOR IDENTIFICATION

- A. Provide non-metallic wire markers on each conductor in panelboards and in junction boxes having more than 6 conductors. Identify branch circuit or feeder number for power and lighting circuits.
- B. Color Coding of Insulated Equipment Ground: Solid green.
- C. Color Coding of 208/120 Volt System: Phase A - black, Phase B - red, Phase C - blue, Neutral - white.
- D. Color Coding of 480/277 Volt System: Phase A - brown, Phase B - orange Phase C - yellow, Neutral - gray.
- E. Provide color tracers on neutrals to differentiate circuits on multi-wire branch circuits with separate neutrals.

3.08 BOX LOCATIONS

- A. Provide electrical boxes for outlets, junctions and equipment connections as shown and as required for splices, taps, wire pulling, and code compliance.
- B. Electrical box locations shown are approximate unless dimensioned. Obtain equipment outlet locations from equipment manufacturer prior to rough-in. Coordinate outlet and wall switch

locations with casework and finish elements shown on Architectural drawings. Install to fit conditions or as directed.

- C. Change location of wall outlets, wall switches, and lighting outlets up to fifteen feet without charge when requested by Architect/Engineer prior to installation.
- D. Height of outlets unless otherwise directed: See Drawings.

3.09 BOX INSTALLATION

- A. Set wall outlet and wall switch boxes vertically.
- B. Support boxes independently of conduit, piping, and ductwork; securely fasten in place.
- C. Provide recessed outlet boxes in finished areas. Flush front edge of box or plaster ring even with finished surface.
- D. Provide blank cover plate over all boxes that do not contain devices or are not covered by equipment.

3.10 WIRING DEVICES

- A. Ground Fault Circuit Interrupter (GFCI) Protection: Provide for receptacles located outdoors, within 6 feet of sinks, indoor wet locations, and as otherwise indicated. GFCI receptacles are not required where branch circuit is protected by GFCI circuit breaker.

3.11 CABLE TRAY FOR COMMUNICATIONS CIRCUITS

- A. Install in accordance with requirements of NEMA VE 2 and manufacturer's instructions. Provide shop drawings for installation of cable trays showing layout, supports, connectors, accessories, and installation details.
- B. Unless otherwise indicated support cable tray from building structure with center support using 1/2 inch threaded rod. Provide supports at each end, each connection point, and other points required to maintain maximum support spacing of 12 feet on center for ladder type tray and 6 feet on center for wire basket type tray.
- C. Install warning signs 50 feet on center along cable tray to read "WARNING! DO NOT USE CABLE TRAY AS WALKWAY, LADDER, OR SUPPORT. USE ONLY AS MECHANICAL SUPPORT FOR CABLES."
- D. Seismic Restraint: Provide seismic bracing of suspended cable tray. Comply with product manufacturer's standard installation details and recommendations for Seismic Design Category F.
- E. Coordinate cable tray layout and installation with HVAC and Plumbing requirements. Locate supports to clear ducts, equipment and piping. Allow for offsets to share space at three locations minimum.
- F. Provide wall sleeve wherever cable tray passes through a wall or other permanent partition. Do not install cable through fire rated construction.

3.12 FIRE RATED CONSTRUCTION

- A. Verify location of fire rated walls and ceilings prior to rough-in.

- B. Installation of boxes, rough-in cans, conduits, and sleeves that result in membrane or through penetrations shall comply with IBC 712.1 through 712.4 as required to maintain fire rating of construction assembly. Coordinate locations and construction requirements with General Contractor.
- C. Provide approved conduit and/or pathway sleeve kits for installation of open cable through fire rated construction.

3.13 LABELING

- A. Outlets: Identify panel and circuit number on faceplate of convenience and special purpose outlets. Use self-adhesive, polyester or vinyl laminated labels with machine generated alpha-numeric circuit identification, 1/4 inch high black letters on clear background. Exception: Use white letters on black or brown color device plates.
- B. Junction Boxes: Label or mark cover with panel and circuit number. Locate on inside of cover except locate on outside of junction box cover in attics, crawl spaces, equipment rooms and above accessible ceilings.

3.14 TESTS

- A. Perform continuity test on all feeder and branch circuit conductors. Verify proper phasing and that no short circuits or accidental grounds exist.
- B. Check all convenience outlets for correct wiring connections using a polarity circuit tester. Test AFCI and GFCI circuits for proper operation with an approved tester.
- C. Torque test conductor lug terminations to manufacturers recommended values.

END OF SECTION

SECTION 26 05 26
GROUNDING AND BONDING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Power System Grounding.
- B. Electrical Equipment and Raceway Grounding.
- C. Communication System Grounding.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Mechanical Connectors at Ground Connections: Heavy duty, solderless, bolted pressure or compression type connectors or clamps labeled as being suitable for the purpose. Manufacturer's standard grounding lug when furnished as part of panelboards and other equipment.
- B. Exothermically Welded Connections: Copper Thermit weld process conforming to manufacturer's instructions; use molds, weld material, tools, and accessories supplied by the manufacturer. ERICO CADWELD or equal.
- C. Ground & Bonding Conductors: Bare, soft drawn copper; stranded for 8 AWG and larger, unless otherwise indicated or specified. Equipment grounding conductors may be insulated with green color identification per Code.
- D. Grounding Bus Bars: UL 467; 1/4 inch thick x 4 inch high tin plated copper bus with predrilled holes for bolted lug terminations, 2 inch high insulated spacers, and stainless steel standoff wall brackets. Provide 16 inch long with holes for (8) horizontal terminations unless otherwise indicated.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Make grounding connections which are buried or otherwise inaccessible using exothermic welds. Where installed outdoors, bury ground conductors with minimum 18 inches of cover unless otherwise indicated.
- B. Equipment Grounding Conductor: Provide separate insulated green equipment grounding conductor in feeders and in branch circuits to plug-in outlets. Provide equipment grounding conductor in non-metallic conduits and flexible conduit. Size equipment grounding conductors per NEC 250.122 unless larger size is shown or specified.
- C. Provide grounding locknuts on each end of feeder conduits serving panelboards. Exception: Provide grounding bushing with bonding jumper where conduit is used as equipment ground.

- D. Provide conduit sleeves where ground conductors pass through concrete slabs. Metal conduit sleeves shall have threaded end extending above slab to accommodate a grounding bushing or conduit hub per NEC 250.64(E).
- E. Provide minimum 1/0 AWG conductor for communications service grounding. Leave 10 feet slack conductor at terminal board. Connect conductor to building ground electrode system.
- F. Ground exposed non-current carrying metal parts of equipment fastened in place or connected by permanent wiring and likely to become energized per Code.

3.02 SEPARATELY DERIVED SYSTEMS

- A. Ground secondary neutral and housing of all transformers per Code. Size grounding electrode conductor, bonding jumper, equipment bonding jumpers, and supplemental electrode bonding connections per applicable paragraphs of NEC Article 250 unless larger size is shown or specified. In addition, provide a driven ground electrode when indicated.
- B. Install grounding electrode conductor in 1 inch conduit between transformer and grounding electrode connection. Bond free end of conduit to grounding electrode conductor using grounding type bushing or hub.

3.03 REMOTE BUILDINGS AND STRUCTURES

- A. Provide equipment grounding conductor with circuit conductors between buildings and/or structures. Size equipment grounding conductor per NEC 250.122 unless larger size is shown or specified.
- B. Ground electrical system per Code. Size grounding electrode conductor, equipment bonding jumpers, and supplemental electrode bonding connections per applicable paragraphs of NEC Article 250 except when larger size is shown or specified.
- C. Provide isolation of grounded circuit conductor (neutral) at the disconnecting means and/or main panelboard as required.

3.04 TESTS

- A. Separately Derived Systems: ANSI/IEEE 81; measure and record ohmic value of ground resistance between main grounding system and each separately derived transformer neutral point by performing two point method tests.
- B. Maximum Acceptable Resistance to Ground: 25 ohms.

END OF SECTION

**SECTION 26 20 00
ELECTRICAL DISTRIBUTION**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Panelboards and Circuit Breakers.
- B. Disconnect Switches.
- C. Fuses.
- D. Dry Type Transformers.
- E. Nameplates.

1.02 RELATED SECTIONS

- A. Concrete for Equipment Pads: Comply with Division 03 – Concrete.

1.03 SUBMITTALS

- A. Submit product data for switchboards, panelboards, circuit breakers, and dry type transformers. Dry type transformer submittal must indicate compliance with minimum efficiency requirements specified.
- B. Submit shop drawings for panelboards and dry type transformers. Include installation requirements for anchoring and bracing meeting requirements of the International Building Code for Seismic Design Category F.
- C. Coordinate dimensions of equipment with site and project space dimensions to verify equipment will fit, conform to indicated layout, and meet NEC and manufacturer clearance requirements.
- D. Submit reports for tests required under Part 3 of this section. Submit manufacturer's performance testing instructions and signed written performance test records for equipment ground fault protection systems.
- E. Submit product data and shop drawings for service switchboard to serving utility for review and approval in addition to Architect/Engineer submittal requirements.

1.04 OPERATION AND MAINTENANCE DATA

- A. Include data for panelboards, transformers, and fuses in Operation & Maintenance Manuals.

1.05 SPARE PARTS

- A. Fuses: Furnish to Owner 3 spare fuses of each type and rating installed.
- B. Fuse Pullers: Furnish 2 fuse pullers to the Owner.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Switchboards, Panelboards, Circuit Breakers and Disconnects: Siemens, to match existing.
- B. Fuses: Bussman and Littelfuse.
- C. Dry Type Transformers: Square 'D', General Electric, Siemens, Cutler-Hammer, Tierney.

2.02 BRANCH CIRCUIT PANELBOARDS

- A. Panelboards: UL 67, NEMA PB 1; bolt-on circuit breaker type.
- B. Electrical Ratings, Circuit Breaker Arrangement, Special Features: As indicated on drawings. Indicated ampere interrupting capacity (AIC) is the rms symmetrical integrated equipment short circuit rating of the complete assembly. Indicated AIC rating shall be based upon manufacture listed series rating with the panelboard main device or the line side overcurrent protective device, as applicable, unless otherwise indicated.
- C. Cabinet: Concealed trim clamps, concealed hinge door-in-door (one door over interior and one which exposes gutter) with flush locks all keyed alike, 6" deep x 20" wide. Provide two keys for each panelboard furnished.
- D. Finish: Manufacturer's standard enamel over rust inhibitor for exposed surfaces; galvanized steel for recessed boxes.
- E. Circuit Directory: Index card under plastic with metal framed holder on inside door.
- F. Main Overcurrent Protective Device(s): UL 489; molded case circuit breaker with thermal magnetic trip fixed mounted, single handle common pole operation, AIC rating greater than available symmetrical short circuit amperes. Main circuit breakers required to selectively coordinate shall have LI or LSI solid state trip.
- G. Circuit Breakers: UL 489; molded case, thermal magnetic trip. Multi-pole breakers shall be single handle with common pole operation.
 - 1. Provide type SWD circuit breakers for lighting circuits.
 - 2. Provide type HACR circuit breakers for air conditioning equipment, refrigeration equipment, and surge protection devices (SPD).
 - 3. Provide approved manufacturer handle ties between single pole circuit breakers serving branch circuits sharing a common neutral (disconnecting means for multiwire branch circuits).
 - 4. Provide approved manufacturer handle padlock attachment on circuit breakers serving branch circuits for permanently connected appliances without local disconnecting means and where otherwise indicated.
 - 5. Provide combination-type arc-fault circuit interrupter protection (AFCI) circuit breakers for branch circuits where indicated.
 - 6. Provide ground fault circuit interrupter protection (GFCI) circuit breakers for branch circuits where indicated.
 - 7. Provide ground fault equipment protection (GFEP) circuit breakers for pipe heat trace and for deicing and snow melting equipment.
 - 8. Circuit breakers used as mains (back-fed) shall be suitable for the purpose and shall include an auxiliary fastener listed and approved by the panelboard manufacturer where plug-in type device is used.

- H. Bussing: Copper with full neutral and ground bus. Provide separate ground bus isolated from cabinet where isolated grounding requirements are indicated.
- I. Where surge protective device (SPD) is indicated, coordinate requirements with Section 26 43 00.

2.03 DISCONNECT SWITCHES

- A. Safety Switches: NEMA KS 1; heavy duty, quick make, quick break, handle with lock out / tag out provisions. Provide rating, number of poles, and fusing required for load served.
- B. Toggle Switches for Small Motors and Appliances: NEMA WD 1; horsepower rated 20 ampere general use snap switch with lock-out attachment.
- C. Switch Enclosures: NEMA ICS 6; Type 1 for dry locations, Type 3R for damp or outdoor locations.

2.04 FUSES

- A. Approved Fuses, 600 Amperes and Less, for Branch Circuits and Power Distribution:
 - 1. ANSI/UL 198C Class J low peak with time delay unless otherwise indicated except ANSI/UL 198E Class RK5 may be used in safety switches for protection of motors and transformers.
 - 2. For protection of circuit breakers: Fuses must comply with NEC 240.86 series rating requirements for load side circuit breakers that are not rated for the available fault current. Coordinate series rating requirements with published manufacturer's listings for circuit breakers installed.

2.05 DRY TYPE DISTRIBUTION TRANSFORMERS

- A. Two Winding Transformers: ANSI/NEMA ST 20, NEMA TP-1 Class 1 compliant; general purpose, air cooled; ratings as shown on drawings. Transformers shall meet the minimum efficiency requirements of Washington State Energy Code (WSEC).
- B. Insulation System and Average Temperature Rise: 220 degree C insulation, 115 degree C rise above 40 degree C ambient.
- C. Primary Winding Taps: Six (6) 2-1/2% taps, 2 above and 4 below normal.
- D. Sound Levels: Not to exceed ANSI/NEMA ST 20 standards.
- E. Isolate core and coil from enclosure using vibration absorbing mounts.

2.06 NAMEPLATES AND LABELS

- A. Nameplates: Engraved three-layer laminated plastic, white letters on black background, affixed with stainless steel screws, adhesive acceptable in dry locations. Use black letters on yellow background for series combination rating identification.
- B. Letter Height: 1/2 inch for series combination rating identification. 1/4 inch for switchboards, panelboards, motor control centers, circuit breakers, switches, and disconnecting means; 1/8 inch for motor starters, contactors, time switches, and equipment served.

- C. Arc Flash Protection Labels: ANSI Z535.4; Self adhesive vinyl label factory installed by the equipment manufacturer with ANSI header to read WARNING or DANGER and informational text to include:

Electric Arc Flash Hazard

Turn off all power before opening.

Follow all requirements in NFPA 70E for safe work practices and for Personal Protective Equipment.

Failure to comply can result in death or injury.

PART 3 - EXECUTION

3.01 PANELBOARDS

- A. Install in accordance with NEMA PB 1.1.
- B. Height: 78 inches maximum measured from finish floor to top of enclosure; 78 inches maximum measured from finish floor to highest device handle for panelboards over 66 inches high.
- C. Provide typewritten circuit directory for each panelboard listing load description for each circuit. Use final room names and numbers as verified with the Owner.
- D. Stub 3 empty 3/4-inch conduits to accessible location above ceiling from each recessed panelboard.

3.02 FUSES

- A. Install fuses in fusible switches.
- B. Size fuses for motor loads at 150% of nameplate full load amperes; size fuses for air conditioning and refrigeration equipment at maximum recommended nameplate rating.

3.03 DRY TYPE TRANSFORMERS INDOORS

- A. Connect raceway to transformer case using flexible conduit.
- B. Mounting: Floor, wall, or trapeze mount as required. Mount transformers on ½ inch minimum oil resistant neoprene vibration isolating pads with cross-ribbed or waffle design and located at each anchor point.
- C. Seismic Restraint: Comply with requirements of the International Building Code (IBC). Obtain required anchoring plans from equipment manufacturer indicating size and location of anchors suitable for Seismic Design Category F. Provide seismic bracing for trapeze mounted equipment. Secure floor mounted equipment to concrete floor or pad with corrosion proof 1/2 inch -13 SAE Grade 5 wedge anchors having a minimum embedded depth of 5 inches unless otherwise approved or recommended by manufacturer.
- D. Disconnecting Means: Comply with NEC 540.14 and as otherwise shown on plans.

3.04 NAMEPLATES AND LABELS

- A. Panelboards: Provide nameplate to identify equipment designation, voltage, and source of supply for each, e.g. Panel A, 208/120V, Fed from Panel M. Provide arc flash protection label. Provide series combination rating nameplate where such rating is applicable.

- B. Individual Circuit Breakers, Switches, and Motor Starters Installed in Switchboards, Distribution Panelboards Without Circuit Index: Provide nameplate to identify circuit number and load served.
- C. Individual Enclosed Safety Switches, and Disconnecting Means: Provide nameplate to identify load served and circuit source and circuit number.
- D. Equipment Served: Provide nameplate to identify equipment designation corresponding with nameplate of serving overcurrent device, disconnect switch, or controller when there is more than one of same type of equipment being served, e.g. Air Handler No. 2. Coordinate with Architect/Engineer to assign numbers when not designated in equipment schedules.
- E. Nameplate and Label Location: Secure to equipment fronts, except recessed panelboards in finished locations secure nameplates and labels to inside face of door.

3.05 EQUIPMENT PADS

- A. Transformers - Indoors: Provide concrete equipment (housekeeping) pads, 3-1/2 inches high and 4 inches larger than the footprint of the equipment.

3.06 TESTS

- A. Dry Type Transformers: Measure primary and secondary voltages after loads are connected and systems are energized. Adjust taps for -1% to +2% of rated secondary voltage.

END OF SECTION

**SECTION 26 32 00
PACKAGED ENGINE GENERATOR SYSTEMS**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Remote Annunciator Panel.
- B. Remote Emergency Stop Station.

1.02 SUBMITTALS

- A. Submit product data showing dimensions, ratings, interconnection points, and internal wiring diagrams for remote annunciator, remote emergency stop station.

1.03 WARRANTY

- A. Provide five year warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Cummins Power Generation as supplied by Cummins Northwest.

2.02 ACCESSORIES

- A. Remote Engine Annunciator Panel: NFPA 110 Level 2; surface mounted panel with brushed stainless steel or color enamel finish. Include sub-base tank rupture alarm. Remote annunciator shall connect to the generator control panel using a digital network communication cable.
- B. Remote Manual Shut-Down Station: Provide remote manual stop station complying with NFPA 110, suitable for mounting in either a flush or surface outlet box. Provide permanent label reading "AUXILIARY GENERATOR EMERGENCY SHUTDOWN".

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved shop drawings. Remove existing annunciator from security room at end of project.
- B. Provide all field wiring and interface cabling for generator remote annunciation.
- C. Remote Manual Shutdown Station: Locate adjacent to remote annunciator panel.

END OF SECTION

SECTION 26 43 00
AC SURGE SUPPRESSION BELOW 600 VOLTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Surge Protective Devices (SPD's) for electrical distribution equipment.

1.02 SUBMITTALS

- A. Submit product data for all items specified under Part 2 of this Section. Include product installation requirements. Include test data demonstrating compliance with specified performance and peak surge withstand ratings.

1.03 OPERATION AND MAINTENANCE DATA

- A. Include data for each device type in Operation and Maintenance Manuals.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Integral SPD: Distribution equipment manufacturer's standard products that meet or exceed the minimum requirements of this specification.
- B. Remote SPD: Standard products of the following manufacturers that meet or exceed the minimum requirements of this specification: Innovative Technologies, Joslyn TPS series, Eaton SPD series.

2.02 SPD PRODUCT DESIGN

- A. General: UL 1449, 3rd Edition, Type 2 Devices; MOV hybrid circuit design with EMI/RFI noise rejection filter. For wye configured systems provide line to neutral (L-N), line to ground (L-G), and neutral to ground (N-G) suppression. For delta configured systems provide line to line (L-L) and line to ground suppression. Designs incorporating replaceable modules are not approved.
- B. Diagnostics: LED circuit status indication for each phase. Provide with Transient counter.
- C. Enclosure (Remote Devices): NEMA ICS 6; Type 12 or type 4X, unless otherwise indicated. Provide flush trim plate for recess mounting at flush mounted panelboards..
- D. Overcurrent Protection: Comply with UL 1449 standard. Coordinate requirements with distribution equipment supplier. Size protection based on wire size of the SPD conductor leads using RK5 fusing or high inrush rated circuit breaker.
- E. Disconnecting Means: Provide a disconnecting means for each switchboard and panelboard SPD regardless of whether it is integral or remote mounted. Coordinate requirements with distribution equipment supplier.
- F. Product Warranty: 10 year minimum.

2.03 SPD ELECTRICAL REQUIREMENTS (MINIMUM)

- A. Voltage Rating: Conform to nameplate of distribution equipment.
- B. Ampere Interrupting Capacity (AIC) Rating: Meet or exceed rating of highest rated overcurrent device in the distribution equipment.
- C. UL 1449 3rd Edition Voltage Protection Rating (VPR):
- | System Volts | L-N
(Normal Mode) | N-G
(Common Mode) | L-L |
|---------------|----------------------|----------------------|-----------|
| 120 to Ground | 700 volts | 700 volts | 700 volts |
- D. UL 1449 VPR Voltage Let Through:
- | System Volts | L-N | L-G | L-L | N-G |
|-----------------|-----|-----|------|-----|
| 120/240 1-Phase | 700 | 700 | 1000 | 700 |
- E. Peak Surge Withstand Rating per Phase (8 x 20 microsecond impulse wave form):
- | | |
|----------------------------|-------------|
| Branch Circuit Panelboards | 40,000 Amps |
|----------------------------|-------------|
- F. Noise Attenuation: 55 dB minimum at 100 kHz using MIL-STD-220A insertion loss test method.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Provide SPD where indicated.
- B. Provide factory mounted SPD integral with distribution equipment except remote mounted SPD may be used for panelboard construction.
- C. Remote Mounted SPD Installation Requirements:
1. Provide SPD next (close nipped) to equipment enclosure near panelboard overcurrent device provided for the purpose. Wiring leads for remote device shall be as short and straight as possible, but in no case shall exceed 12 inches in length.
 2. Comply with manufacturer's recommendations for overcurrent protection.
 3. Provide additional equipment grounding terminal in panel for SPD ground connection where required to comply with maximum lead length specified for remote mounted SPD.
 4. Provide recessed mounting with flush trim plate where SPD is installed at flush mounted panelboards. Obtain rough-in inspection by the Architect/Engineer prior to cover of recessed installation.

END OF SECTION

DIVISION 27 - COMMUNICATIONS

SECTION 27 05 28 SIGNAL SYSTEMS PATHWAY

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Conduit, raceway, and outlet rough-in for low voltage and structure cabling systems supporting:
 - 1. Voice (Telephone).
 - 2. Data (Computer).
 - 3. Intrusion Alarm.
 - 4. Video Surveillance (CCTV).
- B. Sleeves, Risers, and Horizontal Pathway.

1.02 RELATED SECTIONS

- A. Section 26 01 00, Electrical General Requirements.
- B. Section 26 04 00, Existing Systems.
- C. Section 26 05 00, Basic Materials and Methods.
- D. Section 26 05 26, Grounding and Bonding.
- E. Section 27 10 01, Telecommunications Structured Cabling System.
- F. Section 28 16 00, Intrusion Alarm System.
- G. Section 28 23 00, Video Surveillance System.

PART 2 - PRODUCTS

2.01 OUTLETS

- A. General: 5-inch square x 2-7/8-inch deep outlet box with single gang plaster ring. Provide blank device plates on unused outlets. Provide multi-gang box and/or plaster ring where otherwise indicated on plans.

2.02 MATERIALS

- A. Boxes, Conduit, Raceway, Device Plates, Cable Tray: Comply with section 26 05 00.

2.03 TELECOMMUNICATIONS TERMINAL BOARDS

- A. 3/4 inch plywood mounting board with Class A fireproofing, locations and size as indicated. Paint white with two (2) coats of fire retardant paint. At least one fire retardant stamp or permanent label shall be visible on each sheet of plywood.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General: Comply with Section 26 05 00.
- B. Outlets:
 - 1. Mounting height unless otherwise directed: See Drawings.
 - 2. Conduit: Comply with requirements of Section 26 05 00. Unless otherwise indicated, provide conduit concealed inside wall or casework from each outlet up to nearest accessible ceiling space of same floor or homerun under floor to nearest terminal. Terminate conduit with plastic bushing. Install maximum two 90 degree equivalent bends between raceway terminations. Minimum conduit sizes unless otherwise indicated:

Voice and/or Data	1 inch diameter
All Other Systems	3/4 inch diameter
- C. Risers and Horizontal Pathway: Provide conduit for signal pathway between floors and as otherwise indicated. At MDF, IDF's, and equipment head ends, tag or otherwise label with permanent marker each conduit termination to identify its destination.
- D. Install nylon pull cord in each conduit longer than 20 feet. Leave 18 inches of slack minimum each end. Tag end of pull cord at conduit termination to identify outlet location at other end.
- E. Sleeves: Provide conduit sleeves for installing open signal cables through draft stops and partition walls in attics, crawl spaces, and accessible ceiling spaces. Use specified fire rated sleeves through fire rated construction. Locate and size sleeves per approved shop drawings provided under related sections and as otherwise indicated.
- F. Device Plates: It is the electrical contractor's responsibility to ensure that all line voltage and low voltage system faceplates and visible trim pieces are the same style and finish.

END OF SECTION

**SECTION 27 10 01
TELECOMMUNICATIONS STRUCTURED CABLING**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Cable and Accessories.
- B. Station Outlets.
- C. Cross-Connect Components.
- D. Equipment Mounting.
- E. Structured Cabling System Design.

1.02 RELATED SECTIONS

- A. Section 26 01 00, Electrical General Requirements.
- B. Section 26 04 00, Existing Systems.
- C. Section 26 05 00, Basic Materials and Methods.
- D. Section 26 05 26, Grounding and Bonding.
- E. Section 27 05 28, Signal Systems Pathway.

1.03 REGULATORY REQUIREMENTS

- A. Conform to requirements of the latest revisions of the following standards:

TIA/EIA-569	Commercial Building Standard for Telecommunications Pathways and Spaces
TIA/EIA-568-B-1,2,3	Commercial Building Telecommunication Standard, including all addendums
TIA/EIA-455-61	FOTP-61, Measurement of Fiber or Cable Attenuation Using an OTDR
EIA/TIA-606	Administration Standard for the Telecommunications Infrastructure of Commercial Buildings
EIA/TIA-607	Commercial Building Grounding and Bonding Requirements for Telecommunications

1.04 SYSTEM DESCRIPTION

- A. Provide design and installation of a structured cabling system from MDF to new guard house consisting of horizontal station wiring using unshielded twisted pair (UTP) cabling, with UTP backbone for voice PDS and fiber optic backbone for data PDS.
- B. Data (computer) Network: Conform to TIA/EIA Category 6 requirements. Terminate each station data jack to a patch panel at the nearest Distribution Frame or wiring closet located on same floor unless otherwise indicated.

- C. Data (computer) Network - Fiber: Terminate each station duplex fiber coupler to a patch panel at the nearest Distribution Frame or wiring closet located on same floor unless otherwise indicated.
- D. Voice Network Backbone: Conform to TIA/EIA Category 6 requirements or better. Where trunk cable pair quantities are not shown, provide multi-pair cable sized to equal one (1) four pair cable for each installed active and blanked station outlet plus minimum 30% spare capacity. Terminate trunk cables on wiring terminal blocks at each horizontal cross connect end and at the main cross connect end, 2 pair labeling minimum.
- E. Data Network Backbone: Provide multi-strand fiber optic cable from each Intermediate Distribution Frame (IDF) in guard house to the Main Distribution Frame (MDF) in main building. Each fiber cable shall be terminated at a fiber patch panel each end.

1.05 SUBMITTALS

- A. Submit product data for all items specified under Part 2 of this section.
- B. Submit shop drawings showing floor plans with room numbers, station outlet locations, horizontal station cable routing, backbone cable routing, and alpha numeric identification of terminals and jacks. Include elevation plans showing layout of cross-connect and wire management hardware. Show location and size of conduit sleeves for open cable routing.
- C. Submit terminal labeling plan.
- D. Submit documentation for tests required under Part 3 of this section.

1.06 OPERATION AND MAINTENANCE DATA

- A. Include data for complete structured cabling system in Operation and Maintenance Manual.
- B. Include cable certification test results for each UTP and Fiber Optic cable.

1.07 QUALIFICATIONS

- A. Company: Contractor specializing in the design, installation, and testing of high speed data and voice network systems for a minimum of five years.
- B. Installers: Trained and experienced technicians of the company, certified by the product manufacturer and by Building Industry Consulting Service International (BICSI) for the PDS cabling, hardware, and accessories being installed, shall perform the work.

1.08 WARRANTY

- A. Provide 5 year minimum product warranty and 15 year minimum link/channel transmission warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A. UTP Cable: Systimax, Bert-Tek, CommScope, AMP.
- B. UTP Station Outlets and Cross-Connect Components: Systimax, AMP, Ortronics.

- C Fiber Optic Cable, Equipment, and Accessories: Siecor, CommScope, AMP, Ortronics.

2.02 GENERAL REQUIREMENTS

- A. All products provided under Part 2 shall meet or exceed TIA/EIA-568-B.2-1 Category 6, TIA/EIA-568-B.3-1 Optical Fiber, unless specifically indicated otherwise.

2.03 CABLE

- A. Station Cable, Voice: UL type CMR, Category 6 or better, 24 AWG solid copper, 4-pair unshielded twisted pair, jacket overall, color coded. Cable installed outdoors shall have a water blocking core and suitable for installation below grade in conduit.
- B. Station Cable, Data: UL type CMP, Category 6 extended frequency (350MHz), 24 AWG solid copper, 4-pair unshielded twisted pair, jacket overall, color coded, listed for use in ducts, plenums, and other air handling spaces. Cable installed outdoors shall have a water blocking core and be suitable for installation below grade in conduit.
- C. Multi-Mode Riser Rated Fiber Optic Cable (Data Backbone): UL listed OFNR twelve (6) strand multi-mode 50/125 micron, high performance laser core, 10 GB certified for 300 meters at 850nm., indoor/outdoor rated, loose buffer.

2.04 CABLE ACCESSORIES

- A. Cable Support: Extra wide base J hooks, with plenum rated tie wraps. Caddy cable cat system or equal. Staples, straps, bridle rings, and similar supports are prohibited.
- B. Fiber Protection, Inside Plant: Non-metallic corrugated flexible raceway, 3/4 inch minimum diameter, orange color, UL listed for use with OFNP plenum rated fiber cable. Carlon Plenum-Gard or equal.
- C. Fiber Protection, Outside Plant: Non-metallic corrugated flexible raceway, 1 inch diameter, orange color, UL listed for use as an innerduct within conduit systems.
- D. Wire Management: Provide vertical wire management channels each side of equipment racks for strain relief, bend radius, and cable routing. Include cable trough for station cable routing and front mounted wire management rings for patch cords.
- E. UTP Voice Cable Circuit Protection, Outside Plant: UL 497, solid-state, fused, press to fit cross-connect block protectors with automatic reset and ground bar attachment. ITW Linx UltraLinx series protector or equal. Provide for each circuit pair.
- F. UTP Data Cable Circuit Protection, Outside Plant: UL 497, solid state modular protector. Provide rack mounted patch panel configuration for bundles or pathways that exceed 6 cables. ITW Linx or equal. Provide for protection for each cable.

2.05 STATION OUTLETS

- A. Voice Jacks: TIA/EIA - T568A RJ1, 6-position/6-conductor, non-keyed modular jack, with symbol or color code to identify use. For wall phones provide integral stainless steel wall plate with mounting lugs compatible with telephone handset.
- B. Data Jacks: TIA/EIA - T568A RJ45, 8-position/8-conductor, keyed modular jack, with symbol or color code to identify use.

- C. Fiber Couplers: Duplex ST multimode/single-mode modular adapter with 45 degree metal sleeves and dust caps.
- D. Faceplates: Thermoplastic with identification strip top and bottom; 3 module/6 port capacity; color to match wiring devices. Provide blank modules for unused plate opening.

2.06 CROSS-CONNECT COMPONENTS

- A. Voice: AT&T 110 series connecting blocks with stand-off brackets, bridging clips, cable troughs, and distribution rings as required for cable management. Provide labeling strips for conductor assignment identification.
- B. Data: Printed circuit board patch panels, 6-port modular construction with RJ45 keyed 8-position jacks, AT&T 110 connector system, T568A wiring, identification strips, and 19 inch rack mounting, unless otherwise indicated. Provide sufficient panels and quantity of ports equal to the number of terminated stations cables plus 20%.
- C. Fiber: Twelve (12) port ST style panel installed in locking protective cabinet with provisions for fiber storage, fiber routing, and connector identification; 19 inch rack mounting, unless otherwise indicated.
- D. Data Patch Cords: UL type CM, 4-pair cable with RJ45 plug each end, length not to exceed 4 meters, quantity equal to total installed station jacks plus 10%. Provide 25% 3-feet, 50% 5-feet, and 25% 7-feet long, color blue unless otherwise directed.
- E. Fiber Optic Connectors: Multi-mode ST style. Quick cure epoxy adhesive. Bayonet style coupling with multi-mode ceramic or glass-in-ceramic ferrule, keyed for repeatable performance.
- F. Multi-Mode Fiber Patch Cords: Preassembled single fiber, multi-mode 62.5/125 micron/ULTRA grade jumper cord with connectors each end, length 3 meters. Provide one patch cord for each terminated/assigned fiber patch panel port plus 10%, with ST to ST or ST to SC connectors as required (verify).
- G. Singlemode Fiber Patch Cords: Preassembled singlemode patch cord with pull-proof connectors each end, length 3 meters. Provide one patch cord for each terminated/assigned fiber patch panel port plus 10%, with ST to ST or ST to SC connectors as required (verify).

2.07 EQUIPMENT MOUNTING AND ACCESSORIES

- A. Equipment Racks, Wall: Steel or aluminum one piece wall bracket with hinged swing out panel mount feature, 19 inches wide by 6 inch nominal deep.
- B. Equipment Cabinets, Wall: Wall mounted, vented side panels, hinged steel door with lock, 48H x 21W x 20D inch minimum, hinged swing out panel mounting frame with EIA provisions for rack mounted 19 inch wide equipment. Provide with integral 250 CFM minimum ventilation fan and two equipment shelves and mounting hardware. Locks shall be keyed to match branch circuit panelboards. Finish: grey or black enamel.
- C. Power Supplies: Rack mounted, 120 VAC, line interactive, uninterruptible power supply (UPS) with surge protection and filtering, (6) NEMA 5-15R receptacle outlets (minimum), USB connectivity, status display for On Line/On Battery/Replace Battery/Overload, and low battery/on battery alarms. VA rating indicated. APC Smart UPS SUA series or approved.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Comply with product manufacturer installation instructions. Conform to requirements of TIA/EIA 568 and TIA/EIA 569 for specified Category.
- B. Locate telephone jacks above data jacks at outlets where both type are installed.
- C. Label cross connect terminals sequentially using a numeric or alpha-numeric identification plan submitted for approval. Label cable at each end with a permanent cable marker to match the corresponding terminal number. Label each station jack using polyester film adhesive pre-labeled markers to indicate corresponding terminal number.
- D. Conceal wiring in suspended ceiling spaces, attic spaces, and in wall construction. Utilize conduit rough-in specified in Section 27 05 28 and shown on drawings. Install cable in neat parallel runs within cable trays and down to cross-connect hardware without rolls, twists, or loops.
- E. Install cables continuous without splicing. Install open cable above accessible suspended ceilings parallel and perpendicular to building lines. Bundle cables with nylon tie wraps and support cable in tray, conduit sleeves, or from structure using specified J hooks at intervals not to exceed 4 ½ feet. Where bundled cable exceeds 6 cables, provide separate voice and data bundles, 48 cables maximum per bundle.
- F. Leave 10 feet of cable slack at MDF/IDF. Leave 12 inch cable slack at outlets.
- G. Seal conduit sleeves thru fire rated construction using silicone foam system, Chase-Foam CTC PR-855, 3M CP 25, or Dow Corning RTV.
- H. Maintain a minimum 6 inch separation from parallel power wiring. Do not share bore or knock out holes thru wall studs and other structural members with power wiring.
- I. Bond together all equipment racks to room cable tray and to communications service ground using #1/0 AWG conductor minimum. Comply with Section 26 05 26 for grounding materials.
- J. Voice network shall utilize dual base T wiring for termination of each station cable to dual voice jacks. Data PDS shall provide termination of each station cable to a single 8-position /8-conductor data jack. Color coding and pin number termination sequence for each PDS shall conform to established standards approved by Architect/Engineer.
- K. Provide fiber optic cable within protective non-metallic raceway system. Install raceway to within 18 inches of fiber termination.
- L. Provide required telecommunication wiring between fire alarm transmitter and telephone service demarcation point. Verify requirements with fire alarm system provider. Allow for (2) RJ31 jacks with dedicated Category 6 or better station cable terminated at a shared headend cross connect block reserved for analog telephone service interface.
- M. Provide required telecommunication wiring between intrusion alarm transmitter and telephone service demarcation point. Verify requirements with intrusion alarm system provider. Allow for (2) RJ31 jacks with dedicated Category 5 or better station cable terminated at a shared headend cross connect block reserved for analog telephone service interface.

3.02 TESTING

- A. UTP Cabling:

1. Perform continuity test on each wire/pair prior to cover. Verify no open circuits, short circuits, or accidental grounds exist.
2. The system shall be certified to meet or exceed the specifications as set forth in TIA/EIA TSB40 and TIA/EIA 606-A for specified Category compliance. Certifications shall include the following parameters for each pair of each cable installed:
 - a. Wire Map (pin to pin connectivity)
 - b. Length (in feet)
 - c. Attenuation to Crosstalk Ratio (ACR)
 - d. DC Loop Resistance
 - e. Ambient Noise
 - f. Near-End Crosstalk (NEXT)
 - g. Equal-Level Far-End Crosstalk (ELFEXT)
 - h. Return Loss (RL)
3. Use test equipment such as the Ideal LANTEK 6 or approved equal to measure all essential cable parameters specified by TIA/EIA and UL thru Category 6. Provide a written record of these tests.
4. Correct malfunctions when detected and proceed with testing. Record test results on a "UTP Cable Test Results" form showing frequency tested and PASS/FAIL results.

B. Fiber Optic Cabling:

1. OTDR Acceptance Tests: Test fiber optic cable for continuity, normalized fiber loss, and overall length verification, using an Optical Time Domain Reflectometer (OTDR). Attenuation measurements in dB/km shall be performed for each fiber at 850 nm and 1300 nm wavelength. Perform tests of cable both on reel when delivery of cable is taken, and after cable is installed and before connectorizing. Attenuation of multi-mode fibers shall be no greater than 3.0 dB/km at 850 nm and no greater than 1.0 dB/km at 1300 nm. Installed cables with any damaged fibers shall be removed and replaced at Contractor expense.
2. Visual Inspection Reports: Visual inspection of each field installed fiber optic connector shall be documented to include report on end face quality, polish, and informational comments.
3. Optical Loss Tests: Fibers shall be loss tested in both directions at 850 nm and 1300 nm wavelengths after connectorization. Acceptable attenuation shall be any value less than the fiber attenuation plus 1 dB (0.5 dB per connector).
4. Use test equipment such as the Ideal FIBERTEK or approved equal to measure all essential parameters specified. Provide a written record of these tests.
5. Correct malfunctions when detected and proceed with testing. Record test results on a "Fiber Optic Cable Test Results" form showing PASS/FAIL results.

3.03 DOCUMENTATION

- A.** Documentation includes the following and shall be delivered to the Architect/Engineer within 20 working days after the wiring is completed.
1. Certification documents and test results.
 2. Record drawings.
 3. Permanent ID record at each MDF and IDF location.

END OF SECTION

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY

SECTION 28 16 00 INTRUSION ALARM SYSTEM WITH ACCESS CONTROL

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. Project includes the relocation of existing monitoring station from current guard location to new guard house, including extending wiring, devices, and power supplies as indicated in drawings.

1.02 RELATED SECTIONS

- A. Section 26 01 00, Electrical General Requirements.
- B. Section 26 04 00, Existing Systems.
- C. Section 26 05 00, Basic Materials and Methods.
- D. Section 26 05 26, Grounding and Bonding.
- E. Section 28 23 00, Video Surveillance (CCTV) System.

1.03 QUALIFICATIONS

- A. Installers: Trained, experienced, and licensed technicians of company having minimum three years experience in the installation of telecommunications systems shall perform the work.
- B. Authorized factory representative of the system being installed shall supervise installation, programming, testing, and adjustment of the system.
- C. Vendor shall have service staff on 24 hour call, 7 days a week to respond to warranty deficiencies during the warranty period and for future needs after the warranty period expires. Response shall be within 6 hours of notification from Owner to Alarm company.

PART 2 - PRODUCTS

2.01 BASIC MATERIALS

- A. Conductors:
 - 1. 120 Volt Circuits: As specified in Section 26 05 00 for 600 volt.
 - 2. 12 Volt DC Circuits: 22-gauge minimum, color coded, multi-conductor copper cable with overall foil shield and PVC jacket. Wire size shall be increased as required to meet voltage drop and circuit resistance characteristics of the system.
 - 3. Outside plant cable shall be UL listed for the purpose.
- B. Boxes, Conduit, Raceway, Device Plates: Comply with Section 26 05 00.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Arrange with Owner to relocate existing monitoring & control equipment to new location.

3.02 INSTALLATION

- A. Equipment and Devices:

- 1. Relocate PC's and test.
 - 2. Verify alarm system control, remote arm/disarm key station(s), and access control to be operational.
 - 3. Provide programming of the digital communicator as required to restore signals.

- B. Wiring:

- 1. Comply with requirements of Section 26 05 00, except minimum conduit size shall be 3/4 inch. Exposed wiring is permitted only in existing construction where wiring cannot be fished.

3.03 TESTING

- A. Test conductors for continuity prior to cover.
- B. Test complete system including each detector, contact, and key pad, access control station and demonstrate satisfactory operation in presence of Owner and his representatives. Furnish all equipment, two-way radios, etc., required for testing.

3.04 INSTRUCTION

- A. Demonstrate operation, maintenance and programming of system to Owner's personnel prior to Contract Closeout. Allow one two hour session scheduled at convenience of Owner.
- B. Demonstrate operation, control, trouble shooting, maintenance, and testing of system.

END OF SECTION

**SECTION 28 23 00
VIDEO SURVEILLANCE (CCTV) SYSTEM**

PART 1 - GENERAL

1.01 SUMMARY OF WORK

- A. Project includes the relocation of existing monitoring station from current guard location to new guard house, including extending wiring to new location, power supplies, relocation of owner's computers and monitors, and additional items required as indicated in drawings.

1.02 RELATED SECTIONS

- A. Section 26 01 00, Electrical General Requirements.
- B. Section 26 04 00, Existing Systems.
- C. Section 26 05 00, Basic Materials and Methods.
- D. Section 26 05 26, Grounding and Bonding.
- E. Section 28 16 00, Intrusion Alarm System.

1.03 QUALIFICATIONS

- A. Installer: Authorized installer of specified products with service facilities within 50 miles of Project, and having minimum three years experience in installation of CCTV systems.

PART 2 - PRODUCTS

2.01 EXISTING SYSTEM

- A. Evolve.

2.02 BASIC MATERIALS AND ACCESSORIES

- A. Cable:
 - 1. CCTV: RG-59/U coaxial copper conductor cable, 75 ohm impedance, polyethylene insulation, dual shield (bi-foil with aluminum braid).
 - 2. Low Voltage Power: 18 gauge minimum for indoor cameras, 14 gauge minimum for outdoor cameras, twisted pair, 300 volt rated. May be integral with CCTV cable.
 - 3. Indoor Cable: UL listed, NEC type CM, PVC jacket overall.
 - 4. Outdoor Cable: UL listed, NEC type CM, PVC jacket overall, water blocking construction, and suitable for installation below grade in conduit.
- B. Connectors: Standard BNC Type.
- C. Boxes, Conduit, Raceway, Device Plates: Comply with Section 26 05 00.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Arrange with Owner to relocate existing monitoring & control equipment to new location.

3.02 INTERFACE WITH OTHER PRODUCTS

- A. Interface installation of closed circuit television system with intrusion alarm system.
 - 1. Transmit alarm upon loss of video signal on any channel.
 - 2. Initiate recording upon intrusion alarm.

3.03 DEMONSTRATION

- A. Demonstrate system operation and provide two hours of instruction to Owner Personnel prior to Contract Closeout.

END OF SECTION

SECTION 28 31 00
ADDRESSABLE FIRE ALARM SYSTEM

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Building fire detection and alarm system. Relocate existing fire alarm control panel from its current location in the security off to the new exterior guard house. Extend wiring and provide additional devices as required for new control panel location. Bidder design.

1.02 RELATED SECTIONS

- A. Section 26 01 00, Electrical General Requirements.
- B. Section 26 04 00, Existing Systems.
- C. Section 26 05 00, Basic Materials and Methods.
- D. Section 26 05 26, Grounding and Bonding.

1.03 REGULATORY REQUIREMENTS

- A. Conform to requirements of Washington State Fire Marshal's office and local Fire Marshal.
- B. Conform to requirements of following publications in addition to requirements of 26 01 00:
 - IFC International Fire Code
 - NFPA 72 National Fire Alarm Code
 - Local fire alarm code adopted by the jurisdiction

1.04 SYSTEM DESCRIPTION

- A. Fire Alarm System: Supervised, non-coded, addressable, using Style 4 (Class B) signaling line circuit (SLC) intelligent loop wiring for initiating and monitoring, and Class B (two wire with end-of-line device) for signaling.
- B. Existing System: Metasys by Johnson Control. Provide equipment, devices, controller, annunciation and wiring to maintain the existing fire alarm system and for upgrades required to accommodate new work, relocating control panel to new location.
- C. Alarm Sequence of Operation: Actuation of any manual or automatic initiating device results in system ALARM which includes the following operations:
 - 1. Display alarm status information at control panel and remote annunciator.
 - 2. Audible and visual alarm signals operate continuously until initiating devices are restored to normal and control panel is reset. If alarm silence switch is activated, alarm LED annunciation continues. New alarm resounds signals.
 - 3. Alarm signal is transmitted to remote Central Station.
 - 4. Relays activate to initiate HVAC shut down, release door hold open devices, close smoke dampers, and operate elevator and stairwell pressurization fans.

- D. Trouble Sequence of Operation: Grounded circuit, open circuit, power failure, or system failure results in system TROUBLE which includes the following operations:
 - 1. Display trouble status information by zone at the control panel. Audible trouble signal operates continuously until activation of silence switch.
 - 2. Trouble signal is transmitted to remote Central Station.
- E. Sprinkler Supervision: Closing OSY, PIV, or zone valves, or abnormal air pressure for dry systems results in a system supervisory which includes the following operations:
 - 1. Display supervisory status information at the control panel. Audible trouble signal operates continuously until activation of silence switch.
 - 2. Sprinkler supervisory signal is transmitted to remote Central Station.
- F. Duct Detector Supervision: Actuation of any smoke duct detector results in supervisory which includes the following operations:
 - 1. Display supervisory status information at the control panel. Audible trouble signal operates continuously until activation of silence switch.
 - 2. Duct detector supervisory signal is transmitted to remote Central Station.
- G. Zoning: As approved by authority having jurisdiction. Use final room names, room number, and area designations as verified with the Owner.

1.05 SYSTEM PARAMETERS

- A. Design: Comply with requirements of the International Fire Code, International Building Code, and local fire alarm code as adopted and supplemented by authority having jurisdiction and applicable for the Building Occupancy, by Group and Division, indicated in the Construction Documents. Location of control panel, remote annunciator, and door hold open devices are indicated on the Electrical Plans. Desired location of equipment and minimum requirements for signaling and initiating devices are indicated on the Electrical Plans. Provide additional devices as required. Upgrade/modify existing system to accommodate new Work.
- B. Pre-bid Coordination: Obtain and review all construction documents prior to bidding as required to verify site conditions, floor plans, building sections, ceiling types, building construction, mechanical systems, building equipment and other conditions that will affect the fire alarm system design. Verify fire alarm design and system requirements with local authority having jurisdiction.
- C. Fire Suppression System(s): Building has a water based fire suppression system.
- D. Device Compatibility: All alarm, initiating, and accessory devices provided shall be listed in the device compatibility document available from the manufacturer for the fire alarm control panel installed.
- E. Detectors: Unless otherwise indicated, provide detectors as follows:
 - 1. Smoke Detectors: Photo-electric or ionization type.
 - 2. Heat Detectors:
 - a. Indoor high ambient temperature areas (e.g. boiler rooms, kitchens, attics, ceiling spaces, etc.): rate anticipation heat detectors.
 - b. Other locations: combination rate of rise and fixed temperature heat detectors.

- F. Outdoor Installation: Equipment and devices installed outdoors shall be weatherproof and otherwise suitable for the application.
- G. Audible Signaling Devices: Spacing, locations, and system design shall provide alarm audibility of not less than 15 db above ambient noise levels. Horn devices installed in individual rooms under 900 square feet shall be small area type.
- H. Visual Signaling Devices: The following building areas and spaces are to be considered public areas subject to requirements for ADA visual signal devices: Halls, corridors, toilets, rest rooms, conference rooms, open offices, reception areas, break rooms, work rooms, waiting areas, and entries. Spacing, location, and candela rating shall comply with alarm notification visibility requirements of NFPA and ADA.
- I. Access: Provide service access to detectors not readily accessible and to sampling tubes of duct smoke detectors.
- J. Provide identification sticker on end of line (EOL) devices.
- K. Wiring Method: Provide conductors installed in conduit. Open cabling not approved.
- L. Device Locations: Subject to review and approval by Architect/Engineer during shop drawing review. Changes in device locations may be directed and shall be accommodated subject to Code compliance.
- M. Transient Voltage Surge Suppression (TVSS): Provide TVSS protection on outside plant fire alarm circuits.

1.06 SYSTEM MONITORING

- A. Maintain existing transmission to fire department.
- B. Charges for 24 hour Central Station monitoring shall be paid by Owner.

1.07 TEMPORARY FIRE ALARM SYSTEM

- A. Comply with requirements of Fire Marshal for areas scheduled to be occupied during construction. The facility will be occupied and continue normal operations during the construction work. Comply with requirements of Fire Marshal regarding temporary alarm system and/or fire watch during construction. See section 26 04 00 for additional requirements.

1.08 SUBMITTALS

- A. Submit qualifications specified under Part 1 of this section.
- B. Submit product data for all items specified under Part 2 of this section.
- C. Provide shop drawings of existing system and new work as required by Fire Marshal. Include graphic annunciator plaque, wiring diagrams, system layout and battery calculations. Indicate wire color coding and termination points for control panel, remote annunciator, and each type of device. Show equipment and device locations, size, type, quantity, and routing of interconnecting wiring, end of line locations, and zoning.
- D. Submit product data and shop drawings to Fire Marshal for review and approval in addition to Architect/Engineer submittal requirements.

- E. Submit record drawings along with reports specified under Testing.

1.09 OPERATION AND MAINTENANCE DATA

- A. Include data for complete system in Operation and Maintenance Manuals.

1.10 QUALIFICATIONS

- A. Company: Have minimum five (5) years experience in the installation of fire alarm systems and capable of providing 24 hour repair service with 2 hour response time.
- B. Shop Drawing Preparation: Technician possessing a current Certification in Engineering Technologies (NICET) Level III certification shall design and prepare the fire alarm system shop drawings unless otherwise approved by the AHJ.
- C. Installers: Trained technicians possessing a current specialty electrician certificate of competency issued by the State of Washington and National Institute for Certification in Engineering Technologies (NICET) Level II certification shall perform the work.
- D. Authorized factory representative of the system being installed shall supervise installation, testing, and adjustment of the system.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Johnson Control.
- B. Notifier.
- C. As approved by owner.

2.02 CONTROL PANEL

- A. Fire Alarm Control Panel (FACP): Existing Metasys by Johnson Control. Modify/upgrade existing control and batteries to accommodate new work. Provide new initiating circuits, signaling circuits, and auxiliary relays as required. Expander panel(s) may be added to accommodate new signaling devices.
- B. Power Supply: 120 volt AC power input, 24 volt DC system operation. Include transient surge protection, automatic battery charger and 24 volt rechargeable, maintenance free, sealed lead-acid batteries capable of operating system under alarm condition for five minutes after a 60 hour interruption of 120 volt AC power.
- C. Initiating Circuits: Supervised programmable input/output circuits (500 point minimum capacity) with 80 character minimum LCD status display and keypad.
- D. Smoke Alarm Verification Circuit: Delays alarm and resets smoke detectors allowing second (verified) alarm initiation. Adjustable alarm delay 1-60 seconds; adjustable verification period 1-120 seconds.
- E. Signal Circuits: Supervised signal modules with march time feature and trouble LED indication. Provide signal controller(s) for synchronizing strobes to flash together. Provide

sufficient size and quantity so that no signal circuit is loaded more than 75% of listed capacity.

- F. Audio Communications: UL 864 and UL 1711; Supervised modules as required to provide oscillator tone and voice communications through system alarm speakers. Include audio master control, oscillator control switches, speaker circuit manual control switches, pre-amp monitors, power amplifiers, hand held paging microphone, and approved recorded message announcement system. Provide amplifier(s) as required for speaker system operating capacity plus 125% minimum spare capacity. Provide flush mounted remote microphone/audio control station where indicated.
- G. Panel Status Indicators: LED annunciation of normal power, battery power, battery trouble, ground detection, system trouble, alarm silence, and trouble silence. Audible signal annunciation of any alarm or trouble condition or system.
- H. Operating Controls: Lamp test, panel reset, alarm silence, trouble silence, and Drill. Operating controls shall be enabled by key switch or shall be located behind locking cabinet door.
- I. History File: Minimum 400 event capacity in non-volatile memory. Include provisions to allow RS232 interfaces with remote personal computer and printer (2 ports minimum).
- J. Signal Transmission: Provide output connections for addressable alarm, trouble, and supervisory signal transmission via the alarm transmitter.
- K. Auxiliary Relays: As required, with 120 VAC rated contacts; include for HVAC fan shutdown, electro-magnetic door holders, elevator pressurization fan operation, smoke dampers, and elevator recall sequencing.

2.03 REMOTE ANNUNCIATOR

- A. Modify or replace existing as required to accommodate new Work. Change graphics to indicate new zones and building additions.
- B. Option: Where approved by the AHJ, remote annunciation may be deleted if system alarm is transmitted, received, and reported to the fire department by zone.

2.04 GRAPHIC PLAQUE

- A. White plexiglass with dark contrast graphics and painted or anodized metal frame (finish selected by Architect/Engineer). Show one-line building layout by floor with zone configuration approved by Fire Marshal. Provide adjacent to each control panel and remote annunciator.

2.05 INITIATING DEVICES

- A. Manual Stations: UL 38; addressable, single or dual action, downward pull lever, key reset without break-glass feature.
- B. Heat Detectors: UL 521; addressable combination rate-of-rise and fixed temperature 135 deg F rated, self restoring rate-of-rise element, low profile addressable twist lock base, LED status indicator, listed for 2500 square feet. In high ambient areas provide 190 deg F fixed temperature rated detectors listed for 625 square feet.
- C. Smoke Detectors, Photo-Electric Type: UL 268; addressable light scattering photodiode principle of operation, LED status indicator, test feature, integral 135 deg F fixed temperature sensor, addressable twist-lock base, supervised 2-wire operation.

- D. Smoke Detectors, Ionization Type: UL 268; addressable dual chamber, LED status indicator, test feature, adjustable sensitivity, addressable twist- lock base, supervised 2-wire operation.

2.06 SIGNALING DEVICES

- A. Alarm Speakers, Indoor: UL 1480; high fidelity voice/tone re-entrant loudspeaker, low profile housing, 400 to 4000Hz frequency range or better, 25V or 70V field selectable input, multi-tap power selection up to 2 watts minimum, rated 77 dB (UL) or better at 10 feet and 1/4 watt. Provide integral alarm strobe where indicated. Housing color shall be white or red as selected by Owner.
- B. Alarm Strobes: UL 1971; lamp and flasher, field selectable intensity settings, with clear lens and visible FIRE markings on device housing. Provide standard or high candela intensity strobes as required for location and spacing of devices. Housing color shall be white or red as selected by Architect. Strobes shall be synchronized to flash together.
- C. Ceiling mounting signaling devices may be installed in lieu of wall mounted subject to location, spacing, and intensity rating complying with alarm notification audibility and visibility requirements of NFPA and ADA.

2.07 AUXILIARY DEVICES AND ACCESSORIES

- A. SLC Interface devices: Remote addressable module for monitoring status of alarm initiating circuit devices or to provide remote control (pilot duty) from the SLC loop.
- B. Signal Expander: Independent 4-circuit power supply with battery back-up, 120 VAC input, 24 VDC output. 1.5 amp minimum output each circuit.
- C. Audio Power Booster: Independent 2 or 4-circuit audio power supply with synchronized strobe power and battery back-up, 120 VAC, as required. Wheelock SPB series or approved.
- D. Batteries for Equipment Power Supplies: Provide maintenance free, rechargeable type, as recommended by equipment manufacturer. Batteries provided shall not be older than 60 days from date of manufacture.

2.08 CODED TRANSMISSION

- A. Digital Communicator: Fire Marshal approved, UL listed, digital communicator for alarm system reporting complete with power supply, dual phone line monitoring, line seizure, supervisory feature, battery back-up, low battery reporting, and required phone cable for connection to two (2) phone jacks. Communicator shall be integral with the fire alarm control panel.
- B. Alarm Transmitter: Fire Marshal approved, UL listed, wireless radio frequency (RF) or GSM transmission system complete with power supply, transceiver module, antenna, battery back-up, battery charger, low power reporting, failure reporting, mounting hardware, coaxial cable. Transmission format shall provide full addressable alarm, trouble and supervisory data and be compatible with the approved Central Station. Provide a NEMA 1 surface mounted cabinet with locking hinged door to house all transmitter components. Wireless transmitters shall be furnished with remote antenna where required for proper system operation.

2.09 MATERIALS

- A. Conductors for 120 Volt Circuits: Building wire as specified in Section 26 05 00.

- B. Conductors for 24 Volt DC Circuits: Comply with NFPA 70, Article 760 for insulation requirements. Solid copper conductor, minimum #14 AWG for signal circuits and #16 AWG for initiating circuits. Jacketed twisted pair, copper conductor, with shielding as recommended by alarm system manufacturer for SLC intelligent loop wiring. Outside plant cable shall UL listed for the purpose.
- C. Conduit: As specified in Section 26 05 00, metallic only.
- D. Device and Junction-Boxes: As specified in Section 26 05 00, except surface boxes shall be furnished by alarm system manufacturer to match devices. Boxes shall be red in color. Device and junction boxes located outside of buildings shall be tamper proof. Outdoor boxes shall be weatherproof.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Coordinate with the existing Monitoring Station to verify type of transmission system to be provided. Wireless transmission system type shall be as selected by Owner where more than one option is available. Where approved wireless transmission service is not available, arrange with Owner's telephone system installer to provide two phone lines terminated at the FACP digital communicator with required telephone jacks.
- B. Coordinate and arrange with the Monitoring Station to verify wireless signal strength at the project site as required to verify wireless service availability.
- C. After building structure is in place and prior to completion of rough-in, meet with the inspecting authority on site to review system requirements and location of devices and equipment using the approved shop drawings. The purpose of this meeting is to avoid additional devices and other required changes that are often identified during final inspection.

3.02 EXISTING SYSTEM

- A. See Section 26 04 00, Existing Systems, for additional requirements.

3.03 INSTALLATION

- A. Install system in accordance with manufacturer's instructions. Provide all necessary programming and adjustment of system equipment to make operational. Provide setup and programming of the audio communications system to include an approved pre-recorded message as required by the Fire Marshal.
- B. Wiring methods shall comply with requirements of Section 26 05 00. Exposed wiring is not permitted in finished spaces. Wiring shall be dedicated to the fire alarm system consistently color coded per shop drawings. Wiring shall not share conduits with other systems.
- C. Provide recessed backboxes for semi-flush installation of devices where construction permits, otherwise provide surface boxes.
- D. Mounting Heights: Install wall mounted equipment and devices, measured to center of device above finished floor, unless otherwise indicated on shop drawings approved by the Authority Having Jurisdiction (AHJ).

SECTION 28 31 00
ADDRESSABLE FIRE ALARM SYSTEM

Manual Stations	48 inches to top
Alarm Signaling Devices and Remote Alarm Lights	80 inches to bottom
Remote Annunciator and Graphic Plaques	60 inches to bottom

- E. Detectors shall not be installed until finish work and construction clean up of all trades is complete, and area is ready for occupancy.
- F. Fire Protection Monitoring and Signal Power: Provide addressable interface modules, conduit, wire and connections to fire sprinkler flow switches, sprinkler valve tamper switches, pressure switches, electric sprinkler alarm bell, kitchen hood fire dampers, and to kitchen hood extinguishing system alarm contacts. Include 24 VDC power for sprinkler alarm bell furnished under Section 21 10 00. Coordinate number and location of alarm and supervisory connections with fire protection shop drawings.
- G. Adjust sensitivity for each smoke detector based on the application and type of space being protected as recommended by the product installation instructions.
- H. SLC Interface: Provide addressable interface modules for all non-addressable initiating devices and equipment furnished under other sections.
- I. Primary Power Supply: Provided dedicated branch circuit(s) for fire alarm control, transmitter, and NAC auxiliary power supplies. The location of the circuit disconnecting means shall be permanently identified at each cabinet. Where the circuit disconnecting means is located at the panelboard branch circuit breaker, provide a red pad locking attachment.
- J. Wireless Transmitter: Locate and install wireless transmitter in vicinity of the Fire Alarm Control Panel (FACP) as approved by the Fire Marshal. Provide required wiring and connections between the FACP communicator and the transmitter for addressable alarm, trouble, and supervisory transmission. Where wireless signal strength is not sufficient for use of an integral antenna at the transmitter, install a remote antenna at an Architect/Engineer approved location as required.
- K. Alarm speakers: Adjust speaker taps meet decibel and intelligibility requirements of NFPA. Connect speakers for 70 volt operation. Add addition speakers where required by Fire Marshal.
- L. TVSS: Provide transient voltage surge protection on each outside plant fire alarm system signaling, notification, initiating, and control/interface circuit. Locate TVSS with 15 feet of the fire alarm control panel for dedicated inter-building circuit home runs. Locate TVSS within 15 feet of building entrance for indoor circuits extending outdoors (e.g. PIV tamper). Bond TVSS to the building grounding electrode system using #10 AWG minimum copper ground conductor.
- M. Pathway Identification: J-boxes, outlets and conduit covers shall be identified red in color. Conduit in accessible attic and ceiling spaces, and where surface mount in electrical, telecomm and mechanical spaces, shall be identified red in color every 8 feet or fraction thereof, along its length.

3.04 TESTING

- A. Test system in accordance with NFPA 72 and Fire Marshal requirements.
- B. During testing verify device address descriptions match device type, location description, and zoning assignments shown on record drawings. Submit address log and correction report and confidence test report with record drawings.

3.05 **DEMONSTRATION AND INSTRUCTIONS**

- A. Demonstrate operation, maintenance and programming of system to Owner's personnel prior to Contract Closeout. Allow one four hour session scheduled at convenience of Owner.
- B. Use operation and maintenance manuals as basis of instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- C. Demonstrate operation, control, trouble shooting, maintenance, and testing of system.

END OF SECTION

REPORTS

June 30, 2020

Jon Kulju
Project Manager
City of Tacoma Public Works

Re: Greater Tacoma Convention Center conditions.

Mr. Kulju,

The Greater Tacoma Convention Center was constructed in 2002-2004. It is our belief all building codes and regulations were followed at the time of construction. It is also our belief that there are no hazardous materials or unsafe existing conditions the contractor(s) of the upcoming guardhouse project will encounter.

Our goal is to have a safe and accident free project with minimal surprises along the way. If an existing condition is discovered that presents a challenge to this goal, the Greater Tacoma Convention Center will partner with the contractor to remediate that challenge.

We look forward to the onsite start of this project and partnering with a contractor who is ready to help us take the next step in securing our facility.

Sincerely,



Matt Balk
Operations Manager
Tacoma Venues & Events

P A R T III

APPENDIX

A - EQUITY IN CONTRACTING SUPPORTING DOCUMENTS

1. TACOMA MUNICIPAL CODE

2. EIC PROGRAM REGULATIONS

B - CITY OF TACOMA INSURANCE REQUIREMENTS

C- PLAN SET

G001 COVER SHEET

G002 SITE PLAN

G020 SCHEDULES

A100 FLOOR PLAN

A300 ELEVATIONS AND SECTIONS

E0.01 LEGEND, NOTES & ABBREVIATIONS

E1.01 EXHIBIT ONE-LINE RISER DIAGRAM

E1.03 EMERGENCY POWER ONE-LINE RISER DIAGRAM

E3.30 3RD FLOOR POWER PLAN

E3.31 ENLARGED POWER PLAN

E3.40 4TH FLOOR POWER PLAN

E3.50 5TH FLOOR POWER

E7.00 DETAILS

APPENDIX - A

EQUITY IN CONTRACTING SUPPORTING DOCUMENTS

1. TACOMA MUNICIPAL CODE

2. EIC PROGRAM REGULATIONS

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.
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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.

- 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."
- C. "City" means all Departments, Divisions and agencies of the City of Tacoma.
- D. "Contract" means any type of legally binding agreement regardless of form or title that governs the terms and conditions for procurement of Public Works and Improvements and/or Non-Public Works and Improvements Supplies and Services. Contracts include the terms and conditions found in Specifications, Bidder or Respondent Submittals, and purchase orders issued by the City. A "Contract" as used in this chapter shall include an agreement between the City and a non-profit entity to perform construction-related services for Public Works. A "Contract" does not include: (1) awards made by the City with federal/state grant or City general funds monies to a non-profit entity where the City offers assistance, guidance, or supervision on a project or program, and the recipient of the grant awards uses the grant moneys to provide services to the community; (2) sales transactions where the City sells its personal or real property; (3) a loan transaction where the City is acting as a debtor or a creditor; (4) lease, franchise; (5) agreements to use City real property (such as Licenses, Permits and Easements) and, (6) banking and other financial or investment services.
- E. "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.

F. “Goals” means the annual level of participation by MWBEs and SBEs 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 for individual Contracts may be adjusted as provided for in this chapter and shall not be construed as a minimum for any particular Contract or for any particular geographical area.

G. “MWBE Certified business” (or “MWBEs”) means a business that meets the criteria set forth in Section 1.07.050 of this chapter and has been certified as meeting that criteria by the Community and Economic Development Department Program Manager.

H. “SBE Certified Business” (or “SBEs”) means a business that meets the criteria set forth in Section 1.07.050 of this chapter and has been certified as meeting that criteria by the Community and Economic Development Department-SBE Program Manager.

I. “SBE Program Manager” means the individual appointed, from time to time, by the City’s Community and Economic Development Director to administer the Program Regulations.

J. “Program Regulations” shall mean the written regulations and procedures adopted pursuant to this chapter for procurement of Supplies, Services and Public Works.

K. “Non-Public Works and Improvements” means all competitively solicited procurement of Supplies and/or Services by the City not solicited as Public Works.

L. “Person” means individuals, companies, corporations, partnerships, associations, cooperatives, any other legally recognized business entity, legal representative, trustee, or receivers.

M. “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.

N. “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.

O. “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.

P. “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.

Q. “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.

R. “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.

S. “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.

T. “Tacoma Public Utilities Service Area” means any ZIP code in which Tacoma Public Utilities maintains infrastructure or provides retail services.

(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 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. 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 rules and 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 MWBE and SBE goals set forth herein. The Program Regulations shall become effective following public notice and an opportunity to comment by the public.

C. The Program Regulations adopted pursuant to this section are for the administrative and procedural guidance of the officers and employees of the City and are further expressions of the public policy of the City. The Program Regulations, when adopted, shall not confer an independent cause of action or claim for relief cognizable in the courts of the state of Washington or the United States of America to any third parties, and such provisions shall not be used as the basis for a lawsuit in any court of competent jurisdiction challenging the award of any contract by the City.

(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 Certification.

A. The Program Manager shall approve a business as a Certified Business if all of the following criteria are satisfied:

1. The business is certified as a SBE, MBE, WBE, or MWBE through the state of Washington's Office of Minority & Women Business Enterprises; and
2. The company can demonstrate that it also meets at least one of the following additional requirements:
 - a. The personal residence of the owner is located within the City of Tacoma or Tacoma Public Utilities Service Area, or
 - b. The company's business offices are located in any county of the Tacoma Public Utilities Service Area or any county adjacent to Pierce County, or
 - c. When the work is performed outside of Pierce County, the company's business offices may be located in an adjacent county in which the work is performed, or
 - d. Such additional information as the Program Manager or designee may require.

When another governmental entity has an equivalent business classification process, the City may enter into an interlocal cooperative agreement for mutual recognition of certifications.

B. Appeals. The applicant may appeal any certification determination by the Program Manager under this chapter to the Director. The appeal must be made in writing and must set forth the specific reasons for the appeal. The Director shall make a decision on the appeal request within a reasonable time, which decision shall be final unless further appeal is made to the Hearing Examiner. In that event, the Hearing Examiner Rules of Procedure for Hearings, Chapter 1.23 TMC, shall be applicable to that appeal proceeding.

(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 MWBEs and SBEs in the provision of supplies, services, and public works procured by the City. Cumulative annual goals for the participation of MWBEs and SBEs in City contracts shall be based on the number of qualified MWBEs and SBEs operating within the Tacoma Public Utilities Service Area. The dollar value of all contracts awarded by the City to MWBEs and SBEs in the procurement of supplies, services, and public works shall be counted toward the accomplishment of the applicable goal.

2. Application of Annual Goals to Contracts. The Program Manager shall consult with City departments/divisions to establish department/division specific goals for competitively solicited contracts in accordance with this chapter and the Program Regulations.

B. Waivers. City departments/divisions or the Program Manager may request to waive one or more of the requirements of this chapter as they apply to a particular contract or contracts. Waivers 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 and waiver must be documented by the department/division awarding the contract.

2. Not Practicable: Compliance with the requirements of this chapter would impose an unwarranted economic burden or risk to the City after consideration of existing budgetary approvals.

3. Sole source: The supplies, services, and/or public works are available from only one source, and subcontracting possibilities do not reasonably exist as determined by the finance purchasing manager.

4. Government purchasing. The City is a party to or included in a federal, state or inter-local government purchasing agreement as approved by the finance purchasing manager.

5. Lack of certified contractors: An insufficient number of qualified contractors exist to create utilization opportunities.

6. Best interests of the City: Waiver of goals is in the best interests of the City due to unforeseen circumstances, provided that said circumstances are set forth in writing by the requestor.

C. Review of Waivers. A waiver determination by the finance purchasing manager may be reviewed by the Board of Contracts and Awards (C&A Board). The C&A Board may also review a request to reduce or waive the utilization requirements based on Not Practicable or Best Interests of the City circumstances. The C&A Board shall determine whether compliance with such requirements 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. If the determination of the C&A Board does not resolve the matter, a final determination shall be made by the City Council or Public Utility Board, as the case may be.

(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 a supplies, services, or public works and improvements contracts shall be evaluated for attainment of the MWBE and SBE requirements established for that contract in accordance with this chapter and the Program Regulations.

B. The determination of MWBE and SBE usage and the calculation of MWBE or SBE requirements per this section shall include the following considerations:

1. General. The dollar value of the contract awarded by the City to a MWBE or SBE in the procurement of supplies, services, or public works shall be counted toward achievement of the respective goal.

2. Supplies. A public works and improvements contractor may receive credit toward attainment of the MWBE and/or SBE requirement(s) for expenditures for supplies obtained from an MWBE or SBE; provided such MWBE or SBE assumes the actual and contractual responsibility for delivering the supplies with its resources. The contractor may also receive credit toward attainment of the MWBE or SBE goal for the amount of the commission paid to a MWBE or SBE resulting from a supplies contract with the City; provided the MWBE or SBE performs a commercially useful function in the process.

3. Services and Public Works subcontracts. Any bid by a certified MWBE and/or SBE or a bidder that utilizes a certified MWBE and/or SBE shall receive credit toward requirement attainment based on the percentage of MWBE and/or SBE usage demonstrated in the bid. A contractor that utilizes an MWBE and/or SBE subcontractor to provide services or public works

shall receive a credit toward the contractor's attainment of the respective requirement based on the value of the subcontract with that firm.

4. Brokers, Fronts, or Similar Pass-Through Arrangements. MWBEs and/or SBEs acting as brokers, fronts, or similar pass-through arrangements (as such terms are defined in the Program Regulations) shall not count toward the requirement attainment unless the activity reflects normal industry practices and the broker performs a commercially useful function.

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. An MWBE and/or SBE firm may self-count utilization on such bids if they will perform the work for the scope the requirement is based upon.

a. If the low bidder meets the requirements, the bid shall be presumed the lowest and best responsible bid for contract award.

b. any bidder that does not meet the MWBE and/or SBE requirements shall be considered a non-responsible bidder unless the bidder receives a waiver from the Program Manager or C&A Board.

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. 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 MWBE or SBE 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 MWBE or SBEs projected to be used must be approved in advance by the Program Manager. Substitution of one MWBE or SBE with another shall be allowed where there has been a refusal to execute necessary agreements by the original MWBE or SBE, 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 MWBE or SBE is available as a substitute and that failure to secure participation by the MWBE or SBE identified in the solicitation is not the fault of the respondent, substitution with a non-MWBE or non-SBE 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 MWBEs or SBEs, 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 MWBEs or SBEs, and shall include the right of the City to inspect such records.

(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 MWBE and SBE utilization

levels, waivers, proposed modifications to the program, and such other matters as may be specified 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)

1.07.100 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 Remedies.

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; and/or
5. Recommend appropriate action including, but not limited to, disqualification of eligibility for future contract awards by the City (debarment) per Section 1.06.279 TMC;

B. Prior to exercise of any of the foregoing remedies, 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. 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 through and until December 31, 2024, unless the City Council shall determine at an earlier date that the requirements of this chapter are no longer necessary. If this chapter has not been repealed by July 1, 2024, the City Council shall determine by the end of that year whether substantial effects or lack of opportunity of MWBEs and/or SBEs 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.

(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)

City of Tacoma

Equity In Contracting Program Regulations

City of Tacoma Equity In Contracting Regulations Manual

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Introduction

This document serves as the administrative manual for the Equity in Contracting policy that is described in Tacoma Municipal Code (TMC) Chapter 1.07.040(B). The manual will explain how compliance, monitoring, oversight, requirement-making, bid incentives, and enforcement actions will be administered. The document will be regularly updated. For any questions related to this document, please contact the Equity in Contracting (EIC) office at (253)591-5075 or SBEOffice@cityoftacoma.org.

Goals/Requirements on Contracts

A. Requirements

1. Public Work

- a. Minority Business Enterprise (MBE), Women Business Enterprise (WBE), and Small Business Enterprise (SBE) requirements are placed on all Public Work projects.
- i. MBE, WBE, and SBE requirements are **mandatory**. As such, any bidder that does not meet any requirement shall be considered non-responsive by the Equity in Contracting office.
- ii. If a bidder wishes to request a waiver, they must identify the request on the Equity in Contracting Waiver Request Form complete with the reason(s) why.
 1. Waiver types are listed under the “Waivers” section B.

Contractors are also subject to the City’s ordinances and regulations pertaining to having an affirmative action program and prohibiting discrimination. If needed, please contact the Equity in Contracting Office at 253-591-5075 for assistance. The list of City of Tacoma SBE subcontractors is available at

<https://cityoftacoma.org/cms/One.aspx?portalId=169&pageId=112505>. The list of MBE, WBE, and SBE certified firms from the Washington State Office of Minority and Women Owned Business Enterprises (OMWBE) can be found at: <https://omwbe.diversitycompliance.com/>

All SBE goals may be met by using DBE’s or SBE’s from the OMWBE list or the City of Tacoma SBE list. Please contact the Equity in Contracting Office for questions or to verify a firms status.

Contract Compliance

A. Benefits

The City of Tacoma must monitor compliance for all contracts that have requirements related to Equity in Contracting policies. Adequate monitoring allows the City to audit ongoing contracts for compliance, make necessary changes to the Equity in Contracting Regulations Manual based on real data, and to pro-actively monitor any possible discrimination on City of Tacoma-funded contracts.

B. Requirements

1. All contracts that have requirements related to the Equity in Contracting policy must utilize two cloud-based software solutions:
 - a. “B2GNow” for prime-contractor and sub-contractor payment compliance.
 - b. “LCP Tracker” for certified payroll compliance.
2. To access both systems, please use the following link:
<https://cityoftacoma.sbecompliance.com/?TN=cityoftacoma>

3. For support using these software solutions, please contact the Equity in Contracting office at (253)591-5075.

C. Key Performance Indicators

1. B2GNow
 - a. Ethnicity and Gender Summary
 - i. Subcontractors Only
 - ii. With Primes
 - b. Prompt Payment Analysis
 - c. Prime Contractor Performance on Active Contracts
 - d. Contract Awards Summarized by Department
2. LCP Tracker
 - a. Apprentice Hours
 - i. By Trade
 - ii. By Contractor
 - b. Employment By Area
 - i. Zip Code
 - ii. Council Districts
 - c. Employment By Ethnicity

Waivers

A. Benefits

There are times where the City may desire to waive a requirement from a contract. The following waivers, also identified in the Purchasing Policy Manual, give the City flexibility to waive requirements when the situation makes sense for it.

B. Requirements

1. Emergency
 - a. Must be documented and requested by the department/division awarding the contract.
2. Not Practicable
 - a. Must be documented and requested by the department/division awarding the contract.
3. Sole Source
 - a. Must be confirmed by the Finance Purchasing Manager.
 - b. Preliminary check to be made by Equity in Contracting division explicitly for potential MBEs, WBEs, and SBEs.
4. Government Purchasing
 - a. Must be confirmed by the Finance Purchasing Manager.
5. Lack of Certified Contractors
 - a. Must be documented and confirmed by the Equity in Contracting division.
 - b. The division will look up the available contractors by scope of work from the OMWBE roster and/or WEBS.
 - c. The list produced by this research shall be documented with other files for the contract in question.
 - d. If there are not more than 3 available contractors, there will not be a requirement placed on the contract for that scope of work.
6. Best Interests of the City
 - a. Must be documented and requested by the department/division awarding the contract.

C. Compliance

1. Waiver requests may be initiated by the contractor or the department owner.
 - a. When initiated by the contractor, the “Application for EIC Requirement Waiver” must be submitted to the EIC office.
 - i. The application will be reviewed by the office, and a determination will be made.
 - b. When initiated by the department owner, a request must be made in writing to the EIC office.
2. The waivers will be reviewed in accordance with 1.07.060(C).

D. Key Performance Indicators

1. Total quantity of Waivers
 - a. By type number
 - b. Type 5 will also need to document the NAICS code referenced.

Version History

The version history is marked by day.month.year.version nomenclature. A higher version number denotes a more recent version. For example, a 1.1.2020.1 version would denote the first version made in January 1st of 2020. A 1.1.2020.3 version would denote the third version made on January 1st of 2020. When referencing a specific contract, be sure to note that the version of the administrative manual matches that which was in the bid specifications.

Current Version

3.11.2020.1

Previous Version(s)

2.21.2020.1



City of Tacoma
Community & Economic Development
Office of Equity in Contracting
747 Market Street, Rm 900
Tacoma WA 98402
253-591-5075

EQUITY IN CONTRACTING UTILIZATION FORM

This form is to document **only** the EIC subcontractors or material suppliers that will be awarded a contract. This information will be used in calculating the **EVALUATED BID**. Additional forms may be used if needed.

- Prime contractors are encouraged to solicit bids from EIC approved firms.
- Be sure to include this form with your bid submittal in order to receive EIC credit.
- It is the prime contractor's responsibility to check the certification status of EIC subcontractors prior to the submittal deadline.

Bidder's Name: _____

Address: _____ City/State/Zip: _____

Spec. No. _____ Base Bid * \$ _____ **Complete company names and phone numbers are required to verify your EIC usage.**

a. Company Name and Telephone Number	b. MBE, WBE, or SBE (Write all that apply)	c. NAICS code(s)	d. Subcontractor Bid Amount (100%)	e. Material Supplier Bid Amount (20%)	f. Estimated MBE Usage Dollar Amount	g. Estimated WBE Usage Dollar Amount	h. Estimated SBE Usage Dollar Amount
i. MBE Utilization %	j. WBE Utilization %	k. SBE Utilization %					

By signing and submitting this form the bidder certifies that the EIC firms listed will be used on this project including all applicable change orders.

Type or Print Name of Responsible Officer / Title

Signature of Responsible Officer

Date

INSTRUCTIONS FOR COMPLETING EIC UTILIZATION FORM

The purpose of these instructions is to assist bidders in properly completing the EIC Utilization Form.

This form when submitted with your bid provides information to the City of Tacoma to accurately review and evaluate your proposed EIC usage.

1. * Base Bid is the prime contractor's bid, plus any alternates, additives and deductive selected by the City. Also, please refer to Items #10-12 below.
2. Column "a" – List all EIC companies that you will be awarding a contract to if you are the successful bidder.
3. Column "b" – Identify if this firm is being utilized as an MBE, WBE, or SBE. (Firms may count towards multiple requirements)
4. Column "c" – List the appropriate NAICS code for the scope of work, services, or materials/supplies for each subcontractor.
5. Column "d" – The bid amount must be indicated for **all** listed **EIC** that you plan on doing business with. This quote is the price that you and the subcontractor have negotiated prior to bid opening.
6. Column "e" – The bid amount must be indicated for **all** listed **EIC** that you plan on doing business with. This quote is the price that you and the material supplier have negotiated prior to bid opening.
8. Column "f" – Estimated MBE Usage Dollar Amount: For all MBE firms used, multiply the amount in Column "d" by 1.0 plus the amount in Column "e" by 0.20. Insert the total amount in this column.
9. Column "g" – Estimated WBE Usage Dollar Amount: For all WBE firms used, multiply the amount in Column "d" by 1.0 plus the amount in Column "e" by 0.20. Insert the total amount in this column.
10. Column "h" – Estimated SBE Usage Dollar Amount: For all MBE, WBE, or SBE firms used, Multiply the amount in Column "d" by 1.0 plus the amount in Column "e" by 0.20. Insert the total amount in this column.
11. Block "i" – The percent of actual MBE utilization calculated on the Base Bid only. (Divide the sum of Estimated MBE Usage Dollar Amount (Column "f") by your Base Bid (*) then multiply by 100 to get a percentage: \$ amounts from column "f" divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)
12. Block "j" – The percent of actual WBE utilization calculated on the Base Bid only. (Divide the sum of Estimated WBE Usage Dollar Amount (Column "g") by your Base Bid (*) then multiply by 100 to get a percentage: \$ amounts from column "g" divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)

13. Block "k" – The percent of actual SBE utilization calculated on the Base Bid only. (Divide the sum of Estimated SBE Usage Dollar Amount (Column "h") by your Base Bid (*) then multiply by 100 to get a percentage: \$ amounts from column "h" divided by Base Bid (*) x 100 = EIC usage as a percent of the Base Bid.)

It is the prime contractor's responsibility to check the status of EIC subcontractors prior to bid opening. Call the EIC Office at 253-591-5075 for additional information.

Application for Waiver of EIC Requirements

Section 1: Basic Information			
Contractor's Name:		EIC Requirements	
Street Address:		MBE %	WBE %
City, State, ZIP Code:			
Contact E-mail Address:			
Contact Telephone No.:			
Section 2: Type of EIC Waiver Requested			
MBE Waiver: <input type="checkbox"/> Total	<input type="checkbox"/> Partial	If partial waiver, please enter the revised MBE percentage:	
WBE Waiver: <input type="checkbox"/> Total	<input type="checkbox"/> Partial	If partial waiver, please enter the revised WBE percentage:	
SBE Waiver: <input type="checkbox"/> Total	<input type="checkbox"/> Partial	If partial waiver, please enter the revised SBE percentage:	
Please explain the reason for the waiver request:			
Section 3: Supporting Documentation			
Provide the following documentation as evidence of your efforts to meet the EIC requirements set forth in the contract and in support of your waiver application:			
<input type="checkbox"/> Attachment A. List of the general circulation, trade and MWBE/SBE-oriented publications and dates of publications soliciting for certified MWBE/SBE participation as a subcontractor/supplier and copies of such solicitation.			
<input type="checkbox"/> Attachment B. List of the certified MWBEs/SBEs appearing in the State of Washington Office of Minority and Women Business Enterprise (OMWBE) directory that were solicited for this contract. Provide proof of dates or copies of the solicitations and copies of the responses made by the certified MWBEs/SBEs. Describe the specific reasons that responding certified MWBEs/SBEs were not selected.			
<input type="checkbox"/> Attachment C. Descriptions of the contract documents/plans/specifications made available to certified MWBEs/SBEs by the contractor when soliciting their participation and steps taken to structure the scope of work for the purpose of subcontracting with or obtaining supplies from certified MWBEs.			
<input type="checkbox"/> Attachment D. Description of the negotiations between the contractor and certified MWBEs/SBEs for the purposes of complying with the EIC requirements of this contract.			
<input type="checkbox"/> Attachment E. Identify dates of any pre-bid, pre-award or other meetings attended by the contractor, if any, scheduled by the City of Tacoma with certified MWBEs/SBEs whom the City of Tacoma determined were capable of fulfilling the EIC requirements set in the contract.			
<input type="checkbox"/> Attachment F. Other information deemed relevant to the request.			
Section 4: Signature and Contract Information			
By signing and submitting this form, the contractor certifies that a good faith effort has been made to promote MWBE/SBE participation pursuant to the EIC requirements set forth under the contract. Failure to submit complete and accurate information may result in a finding of noncompliance, non-responsibility, non-responsiveness, and a suspension or termination of the contract.			
Prepared by (signature): _____		Date: _____	
Name and title of preparer (print): _____			

Instructions for Completing and Submitting an Application for a Waiver of EIC Requirements

Section 1.07 of the Tacoma Municipal Code requires the City to set requirements for participation by Minority and Women-owned Business Enterprises (MWBE) and/or Small Business Enterprise (SBE) on many types of contracts. Prior to the contract award, separate goals are established for MBE, WBE, and SBE utilization, expressed as a percentage of payments made under the contract. The regulations allow the City to impose penalties if contractors fail to meet the requirements established for the contract and also allow the City to grant waivers of requirements, either prior to a contract award or after the award has been made, provided the contractor demonstrates an inability to solicit participation despite good faith efforts to that end. In order for a waiver to be granted, the contractor must submit a completed “Application for Waiver of EIC Requirements” form, along with the required supporting documentation.

Section 1: Basic Information

Enter the contractor’s name, address, federal identification number, and the contract number in the spaces provided. Enter the MBE, WBE, and SBE utilization goals set forth in the solicitation or assigned contract.

Section 2: Type of Waiver Request

Check the type(s) of waiver requested. You may request a total or partial waiver of the EIC requirements. If you request a partial waiver any requirement, enter the revised goal for participation in the box provided. Use the space provided to provide a rationale for your waiver request. Consult the EIC Regulations Manual for the acceptable reasons waivers may be provided. You may attach additional sheets, if necessary.

Section 3: Supporting Documentation

Extensive documentation is required to demonstrate good faith efforts to comply with the EIC requirements. See the form for details on the required documentation.

Section 4: Signature and Contact Information

The waiver application must be signed by someone authorized to discuss the waiver with the Equity in Contracting office and Procurement. By signing the waiver application, the contractor certifies that a good faith effort has been made to promote MWBE/SBE participation pursuant to the EIC requirements set forth under the contract. Failure to submit complete and accurate information may result in a finding of non-compliance, non-responsibility, non-responsiveness, and a suspension or termination of the contract.

Note: Unless total waivers for all three of the MBE, WBE, and SBE participation have been granted, the contractor is required to submit all reports and documents – including compliance reports – pursuant to the provisions set forth in the contract, to evidence compliance with the requirements.

APPENDIX - B

CITY OF TACOMA INSURANCE REQUIREMENTS



CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

The Contractor (Contractor) shall maintain at least the minimum insurance set forth below. By requiring such minimum insurance, the City of Tacoma shall not be deemed or construed to have assessed the risk that may be applicable to Contractor under this Contract. Contractor shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits and/or broader coverage.

1. GENERAL REQUIREMENTS

The following General Requirements apply to Contractor and to Subcontractor(s) of every tier performing services and/or activities pursuant to the terms of this Contract. Contractor acknowledges and agrees to the following insurance requirements applicable to Contractor and Contractor's Subcontractor(s):

- 1.1. City of Tacoma reserves the right to approve or reject the insurance provided based upon the insurer, terms and coverage, the Certificate of Insurance, and/or endorsements.
- 1.2. Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by City of Tacoma.
- 1.3. Contractor shall keep this insurance in force during the entire term of the Contract and for Thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.
- 1.4. Insurance policies required under this Contract that name "City of Tacoma" as Additional Insured shall:
 - 1.4.1. Be considered primary and non-contributory for all claims.
 - 1.4.2. Contain a "Separation of Insured provision and a "Waiver of Subrogation" clause in favor of City of Tacoma.
- 1.5. Section 1.4 above does not apply to contracts for purchasing supplies only.
- 1.6. Verification of coverage shall include:
 - 1.6.1. An ACORD certificate or equivalent.
 - 1.6.2. Copies of all endorsements naming the City of Tacoma as additional insured and showing the policy number.
 - 1.6.3. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.
- 1.7. Liability insurance policies, with the exception of Professional Liability and Workers' Compensation, shall name the City of Tacoma and its officers, elected officials, employees, agents, and authorized volunteers as additional insured.
 - 1.7.1. No specific person or department should be identified as the additional insured.
 - 1.7.2. All references on certificates of insurance and endorsements shall be listed as "City of Tacoma".
 - 1.7.3. The City of Tacoma shall be additional insured for both ongoing and completed operations using Insurance Services Office (ISO) form CG 20 10 04 13 and CG 20



CITY OF TACOMA

INSURANCE REQUIREMENTS FOR CONTRACTS

37 04 13 or the equivalent for the full available limits of liability maintained by the Contractor irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract and irrespective of whether the Certificate of Insurance describes limits lower than those maintained by the Contractor.

- 1.8. Contractor shall provide a Certificate of Insurance for each policy of insurance meeting the requirements set forth herein when Contractor provides the signed Contract for the work to City of Tacoma. Contractor shall provide copies of any applicable **Additional Insured, Waiver of Subrogation, and Primary and Non-contributory endorsements. Contract or Permit number and the City Department must be shown on the Certificate of Insurance.**
- 1.9. Insurance limits shown below may be written with an excess policy that follows the form of an underlying primary liability policy or an excess policy providing the required limit.
- 1.10. Liability insurance policies shall be written on an "occurrence" form, except for Professional Liability/Errors and Omissions, Pollution Liability, and Cyber/Privacy and Security
- 1.11. If coverage is approved and purchased on a "Claims-Made" basis, Contractor warrants continuation of coverage, either through policy renewals or by the purchase of an extended reporting period endorsement as set forth below.
- 1.12. The insurance must be written by companies licensed or authorized in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best's Key Rating Guide www.ambest.com.
- 1.13. Contractor shall provide City of Tacoma notice of any cancellation or non-renewal of this required insurance within Thirty (30) calendar days.
- 1.14. Contractor shall not allow any insurance to be cancelled or lapse during any term of this Contract, otherwise it shall constitute a material breach of the Contract, upon which City of Tacoma may, after giving Five (5) business day notice to Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith; with any sums so expended to be repaid to City of Tacoma by Contractor upon demand, or at the sole discretion of City of Tacoma, offset against funds due Contractor from City of Tacoma.
- 1.15. 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.
- 1.16. 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 has changed.



CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

- 1.17. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made by City of Tacoma to Contractor.
- 1.18. 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).
- 1.19. Failure by City of Tacoma to identify a deficiency in the insurance documentation provided by Contractor or failure of City of Tacoma 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.
- 1.20. If Contractor is a State of Washington or local government and is self-insured for any of the above insurance requirements, a certification of self-insurance shall be attached hereto and be incorporated by reference and shall constitute compliance with this Section.

2. CONTRACTOR

As used herein, "Contractor" shall be the Supplier(s) entering a Contract with City of Tacoma, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise.

3. SUBCONTRACTORS

It is Contractor's responsibility to ensure that each subcontractor obtain and maintain adequate liability insurance coverage. Contractor shall provide evidence of such insurance upon City of Tacoma's request.

4. 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.

4.1 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. The Commercial General Liability Insurance policy shall be written on an Insurance Services Office form CG 00 01 04 13 or its equivalent. Products and Completed Operations shall be maintained for a period of three years following Substantial Completion of the Work related to performing construction services.

This policy shall include product liability especially when a Contract solely is for purchasing supplies. The Commercial General Liability policy shall be endorsed to include:

- 4.1.1 A per project aggregate policy limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

4.2 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



CITY OF TACOMA

INSURANCE REQUIREMENTS FOR CONTRACTS

equivalent. Contractor must also maintain an MCS 90 endorsement or equivalent and a CA 99 48 endorsement or equivalent if "Pollutants" are to be transported.

4.3 Workers' Compensation

4.3.1 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. The Contractor must comply with their domicile State Industrial Insurance laws if it is outside the State of Washington.

4.4 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.

4.5 Pollution Liability Insurance

Contractor shall maintain a Pollution Liability or Environmental Liability Insurance providing coverage, including investigation and defense costs, for bodily injury and property damage, including loss of use of damaged property or of property that has been physically damaged or destroyed.

Such coverage shall provide both on-site and off-site cleanup costs and 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 with limits not less than One Million Dollars (\$1,000,000) each occurrence and Two Million Dollars (\$2,000,000) aggregate.

This policy shall include Environmental Resource Damage coverage and Hazardous Substance Removal. If such coverage is provided on a "claims-made" basis, the following additional conditions must be met:

4.5.1 The policy must contain no retroactive date, or the retroactive date must precede the commencement date of this Contract.

4.5.2 The extended reporting period (tail) must be purchased to cover a minimum of Six (6) years beyond completion of work.

4.6 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.

4.7 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.

4.8 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



CITY OF TACOMA

INSURANCE REQUIREMENTS FOR CONTRACTS

Tacoma shall be included as a named insured (not named as additional insured) on the policy. Builder's Risk Insurance policy shall:

- 4.8.1 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.
- 4.8.2 Be on an ISO Special Form Causes of Loss or equivalent and shall insure against the perils flood, earthquake, theft, vandalism, malicious mischief, and collapse.
- 4.8.3 Include coverage for temporary buildings, debris removal, and damage to materials in transit or stored off-site.
- 4.8.4 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.
- 4.8.5 Contain a Waiver of Subrogation provision whereby each insured waives their subrogation rights to the extent the loss is covered by this insurance.
- 4.8.6 Grant permission to occupy, allowing the building or structure to be partially occupied prior to completion, without detrimental effect to the coverage provided.
- 4.8.7 Include coverage for the testing and startup of the building's operating systems.
- 4.8.8 Include coverage for City of Tacoma's loss of use or business interruption arising out of a covered loss which delays completion.
- 4.8.9 Include resultant damage coverage for loss due to faulty 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.

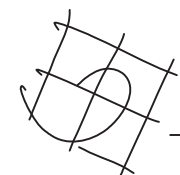
4.9 Other Insurance

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.

APPENDIX - C

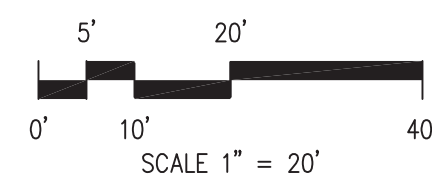
PLAN SET

PLotted By: CJ LAMONY
DATE: 04/29/20
JOB NO: A19-099
DRAWING NO: G002
SHEET: 1 OF 1
PROJECT: GREATER TACOMA CONVENTION CENTER
SUBJECT: SITE PLAN



SITE PLAN

SCALE: 1" = 20'-0"



FP-01

299.51'

S. 17TH ST.

MARKET ST.

PARCEL No.
2015060012

COURT C

(COURT 'C' IS APPROX. TWO STORIES BELOW MARKET STREET.)

365.03'

119.69'

PROPERTY LINE AT FACE OF (E)
STRUCTURE ALL FOUR SIDES

TOP OF (E) CONCRETE
PARKING GARAGE
LEVEL WITH MARKET
STREET.

(E) LOADING DOCK, GTCC (PARTIAL
PLAN SHOWN.

7'-4 1/2"

(E) RAMP UP TO
LOADING DOCK

53'-8 3/4"

(E) COOLING AND
GENERATOR ENCLOSURE

(E) BUILDING BRIDGES
OVER COURT C

GENERAL NOTES:

1. PARCEL NUMBER: 2015060012
2. PROPOSED GUARD HOUSE IS SITED ON TOP OF EXISTING PARKING STRUCTURE.
3. THE SITE HAS NO SETBACK REQUIREMENTS AND THE EXISTING STRUCTURE HAS ZERO SETBACKS.
4. REFER TO DRAWING FOR PROPOSED SETBACK DIMENSIONS
5. THE TOP OF THE EXISTING PARKING STRUCTURE IS RELATIVELY FLAT, BUT SLOPES TO (E) DRAINS. THE SITE AROUND THE (E) PARKING STRUCTURE SLOPES TO THE EAST. NO WETLANDS. PRESENT.
6. THE FULL SITE IS PAVED AND DRIVEWAY / CURB CUTS AS SHOWN.

GREATER TACOMA
CONVENTION CENTER

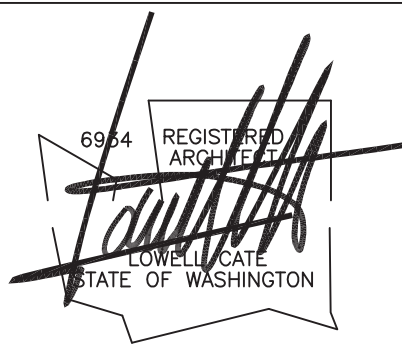
PARCEL No.
2015060012



Helix
design group



AMERICAN INSTITUTE OF ARCHITECTS



HELIX DESIGN GROUP, INC.

SITE PLAN

GUARD
HOUSE

G.T.C.C.
TACOMA, WASHINGTON

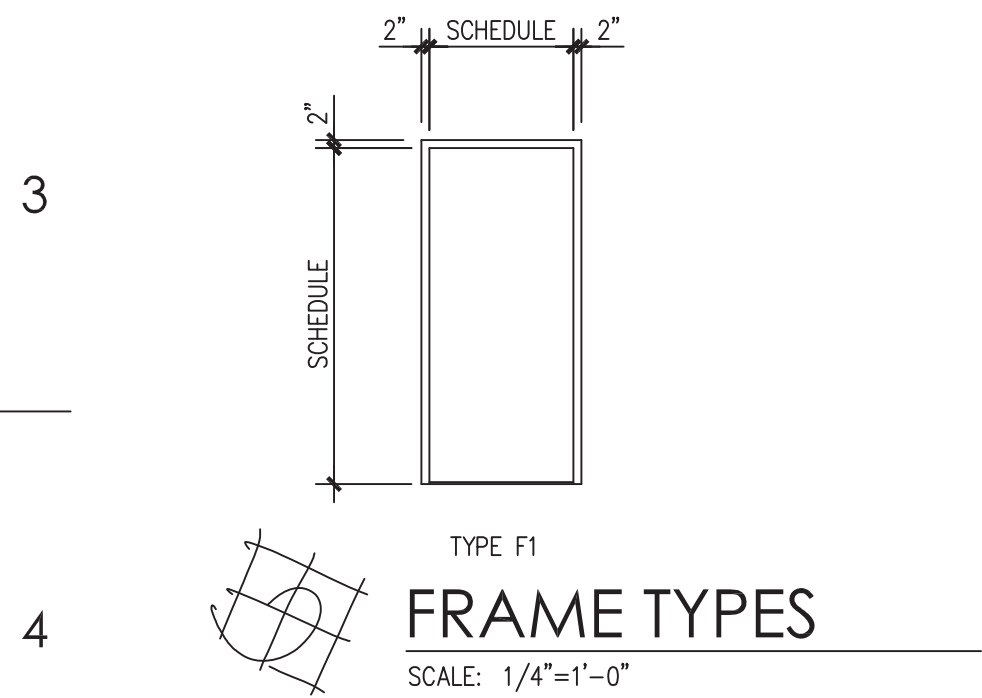
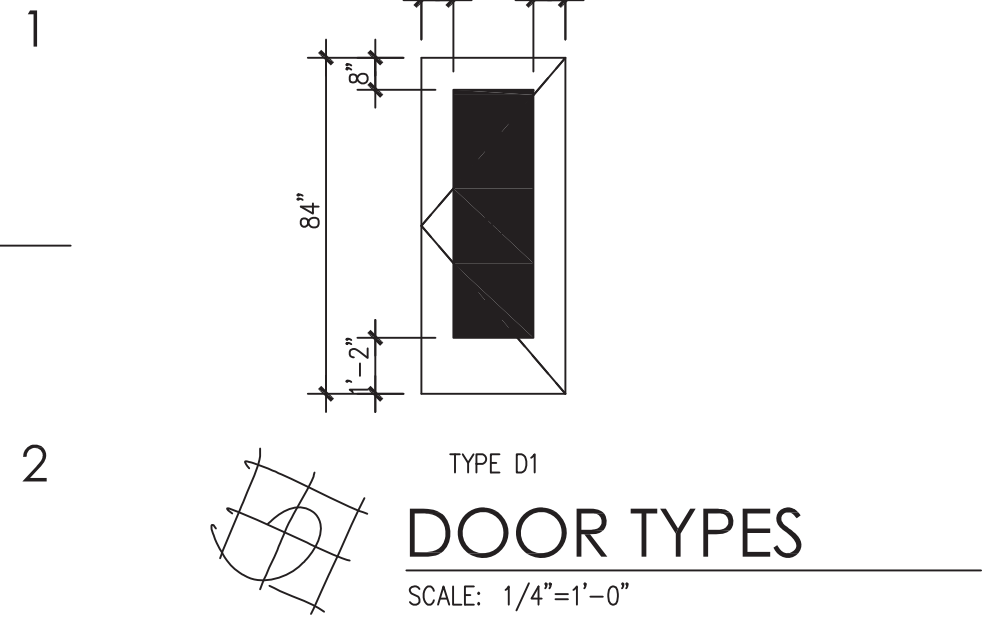
REVISION DATE

DATE 04.29.20 JOB NO. A19-099

BID SET

DRAWING NO.

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any means without permission in writing from Helix Design Group



ROOM FINISH SCHEDULE									
NO.	ROOM NAME	FLOOR		BASE	CEILING		WALL		NOTES
		MATERIAL	FINISH		MATERIAL	FINISH	MATERIAL	FINISH	
100	GUARD HOUSE	MTL	RUB	RUB	ACT	FF	GWB	PT	① ②
SCHEDULE NOTES					GENERAL SCHEDULE NOTES				
① INTERIOR FINISHES OF GUARD HOUSE BY GUARD HOUSE MANUFACTURER, REFER TO SPECIFICATION SECTION 13 34 23.					1. REFER TO "COLOR AND MATERIALS" TABLE FOR COLORS AND FINISHES.				
② WALL FINISH OF ELECTRICAL/COMM. PANEL WALL BY GENERAL CONTRACTOR. FINISHES TO MATCH THOSE PROVIDED WITH PREFABRICATED GUARD HOUSE.					2. "PAINT" (PT) IS A GENERIC TERM USED IN DOCUMENTS. REFER TO PROJECT MANUAL, SECTION 09 90 00, "PAINTS AND COATINGS" FOR SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAINT" REFERS TO PAINTS, STAINS, SEALERS AND OTHER APPLIED COATINGS.				
					3. PROVIDE ROLLER BLINDS AT ALL WINDOW LOCATIONS.				

DOOR SCHEDULE											
NO.	DOOR				RATING	HARDWARE GROUP	FRAME				NOTES
	SIZE (w x h)	TYPE	MATERIAL	FINISH			MATERIAL	FINISH	TYPE	GLAZING	
100	3'-0" X 7'-0"	D1	MTL	PT	INSUL.	N/A	MTL	PT	F1	-	①
SCHEDULE NOTES						GENERAL SCHEDULE NOTES					
① DOOR, FRAME AND HARDWARE BY GUARD HOUSE MANUFACTURER						1. REFER TO PROJECT MANUAL, SECTION 13 24 23, "PREFABRICATED GUARD HOUSE FOR HARDWARE AND GLAZING REQUIREMENTS					
						2. "GLAZING" FOR GLAZING TYPES.					
						3. REFER TO "COLOR AND MATERIALS" TABLE FOR COLORS AND FINISHES.					
						4. "PAINT" (PT) IS A GENERIC TERM USED IN DOCUMENTS. REFER TO PROJECT MANUAL, SECTION 09 90 00, "PAINTS AND COATINGS" FOR SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAINT" REFERS TO PAINTS, STAINS, SEALERS AND OTHER APPLIED COATINGS.					

STANDARD ABBREVIATIONS											
ACT	ACOUSTICAL CEILING TILE	D.S.	DOWNSPOUT	GFRG	GLASS FIBER REINFORCED GYPSUM	MTL	METAL	SLR	SEALER		
ADJ	ADJUSTABLE	DW	DISHWASHER			N.I.C.	NOT IN CONTRACT	SS	STAINLESS STEEL		
ALUM	ALUMINUM	EA	EACH	GL	GLASS	NO.	NUMBER	STL	STEEL		
AWF	ACOUSTICAL WALL FABRIC	EL.	ELEVATION	GLB	GLUE LAMINATED BEAM	N.T.S.	NOT TO SCALE	SV	SHEET VINYL		
BB	BACKERBOARD	E.P.	ELECTRICAL PANEL	GWB	GYPSUM WALLBOARD	O.C.	ON CENTER	TB	TACKBOARD		
BD	BOARD	EQ	EQUAL	GYP	GYPSUM	O.H.	OVERHEAD	TBB	TILE BACKERBOARD		
BLKG	BLOCKING	EQUIP	EQUIPMENT	H	HEIGHT	OPNG	OPENING	THK	THICK		
BOT	BOTTOM	(E)	EXISTING	HB	HORIZONTAL BLIND	OPP	OPPOSITE	T.O.B.	TOP OF BEARING		
C	COMPACT	EXT	EXTERIOR	H.B.	HOSE BIB	PFT	PORCELAIN FLOOR TILE	T.O.F.	TOP OF FLOOR		
CAB	CABINET	FF	FACTORY FINISH	HC	HOLLOW CORE	PLAM	PLASTIC LAMINATE	TRTD	TREATED		
CB	CHALKBOARD	FIN	FINISH	H.C.	HANDICAPPED	PLY	PLYWOOD	T.S.	TUBE STEEL		
CL	CENTER LINE	F.I.C.	FURNISHED AND INSTALLED BY CONTRACTOR	HM	HOLLOW METAL	PS	PROJECTION SCREEN	TWF	TACKABLE WALL FABRIC		
CLR	CLEAR	F.I.O.	FURNISHED AND INSTALLED BY OWNER	HOR	HORIZONTAL	PT	PAINT	TYP	TYPICAL		
CER	CERAMIC	FLR	FLOOR	HR	HOUR	QT	QUARRY TILE	U.N.O.	UNLESS NOTED OTHERWISE		
CHRL	CHAIR RAIL	F.O.	FURNISHED BY OWNER	HT	HEIGHT	R	RADIUS	UNFIN	UNFINISHED		
CLG	CEILING	F.O.I.C.	FURNISHED BY OWNER INSTALLED BY CONTRACTOR	INT	INTERIOR	(R)	RELOCATED	VCT	VINYL COMPOSITION TILE		
CMU	CONCRETE MASONRY UNIT	F.O.S.	FACE OF STRUCTURE	JAN	JANITOR	RB	RUBBER BASE	VP	VENEER PLASTER		
CONC	CONCRETE	FP	FIREPROOFING	JT	JOINT	REF	REFRIGERATOR	W	WIDTH		
COORD	COORDINATE	F.P.	FLAG POLE	LBS	POUNDS (WEIGHT)	REQD	REQUIRED	W/	WITH		
C.O.S.	CENTER OF STRUCTURE	F.P.	FLAG POLE	LG	LAMINATED GLASS	RF	RUBBER FLOORING	WAIN	WAINSCOT		
OPT	CARPET	F.D.	FLOOR DRAIN	LIN	LINOLEUM	S	SOUND	WB	WHITEBOARD		
CT	CERAMIC TILE	F.E.	FIRE EXTINGUISHER	MAS	MASONRY	(S)	SALVAGED	WD	WOOD		
D	DEPTH	F.H.	FIRE HYDRANT	MAX	MAXIMUM	SC	SOLID CORE	WG	WIRE GLASS		
(D)	DEMOLISH	FT	FEET / FOOT	MB	MARKERBOARD	SCHD	SCHEDULE	WH	WATER HEATER		
DBL	DOUBLE	(F)	FUTURE	MDF	MEDIUM DENSITY FIBERBOARD	SDT	STATIC DISSIPATED TILE	W/O	WITHOUT		
D.F.	DRINKING FOUNTAIN	GALV	GALVANIZED	MIN	MINIMUM	SG	SAFETY GLASS	WOM	WALK OFF MAT		
DN	DOWN	GB	GRAB BAR	MIN.	MINUTE	SIM	SIMILAR	WP	WORK POINT		

COLORS AND MATERIALS SCHEDULE			
DIVISION 3 - CONCRETE			
SYMBOL	MATERIAL	MANUFACTURER	COLOR / PATTERN / TYPE
CONC-1	CONC.RAMPS & STEPS	-	LIGHT BROOM FINISH+
CONC-2	CONCRETE FLOORS	-	HARD TROWEL FINISH

DIVISION 5 - METALS			
SYMBOL	MATERIAL	MANUFACTURER	COLOR / PATTERN / TYPE
-	GALV. MTL HANDRAILS	-	PT-1
-	GALV. MTL BOLLARDS	-	PT-1

DIVISION 6 - WOOD AND PLASTIC			
SYMBOL	MATERIAL	MANUFACTURER	COLOR / PATTERN / TYPE
PL-1	PLASTIC LAMINATE	NEVAMAR	COLOR BY OWNER, CABINETS
SSM-1	SOLID SURFACE MATERIAL	DUPOINT CORIAN	CARBON CONCRETE. COUNTER TOPS,

DIVISION 7 - THERMAL AND MOISTURE PROTECTION			
SYMBOL	MATERIAL	MANUFACTURER	COLOR / PATTERN / TYPE
ACM-1	ALUM COMPOSITE	APOLIC	COLOR TO MATCH EXISTING BUILDING'S ACM PANELS
-	ALUMINUM GUTTERS & DOWN SPOUTS		FINISH TO MATCH ACM PANELS

DIVISION 8 - OPENINGS			
SYMBOL	MATERIAL	MANUFACTURER	COLOR / PATTERN / TYPE
D-1	METAL		PT-1
F-1	METAL		PAINT TO ACM
HDW-1	STAINLESS STEEL		SATIN FINISH
WW-1	METAL		PAINT TO MATCH ACM
GL-1	INSULATED GLAZING		CLEAR GLASS WITH FINISH PER SPECIFICATIONS.

DIVISION 9 - FINISHES			
SYMBOL	MATERIAL	MANUFACTURER	COLOR / PATTERN / TYPE
ACT-1	SUSPENDED ACOUSTIC CEILING TILES	ARMSTRONG	WHITE / 2'x2' REGULAR EDGE
RUB-1	RUBBER FLOORING	ROPPE	LIGHT BROWN/DIMENSIONS RUBBER TILE/SOLID
RB-1	RUBBER BASE	ROPPE	LIGHT BROWN/ 6" COVE BASE
PT-1	PAINT	SHERWIN WILLIAMS	"URBAN BRONZE"/ SW 7048 / SEMI-GLOSS
PT-2	PAINT	SHERWIN WILLIAMS	MATCH ACM PANEL SYSTEM
PT-3	INTERIOR PAINT	SHERWIN WILLIAMS	"SHELL WHITE"/ SW8917/ EGG SHELL
m			

DIVISION 10 SPECIALTIES			
SYMBOL	MATERIAL	MANUFACTURER	COLOR / PATTERN / TYPE
SIGN	EXTERIOR ID SIGNS		CLEAR ANODIZED ALUMINUM. 3/8" PLATE
m			

DIVISION 12 FURNISHINGS			
SYMBOL	MATERIAL	MANUFACTURER	COLOR / PATTERN / TYPE
-	ROLLER SHADES	MECHOSHADE SYSTEM	DENSE VERTICAL WEAVE SHADECLOTH SERIES 1000, COLOR BY OWNER FROM STANDARD COLORS

COLORS AND MATERIALS SCHEDULE NOTES	
<> -	

FLOOR PLAN LEGEND

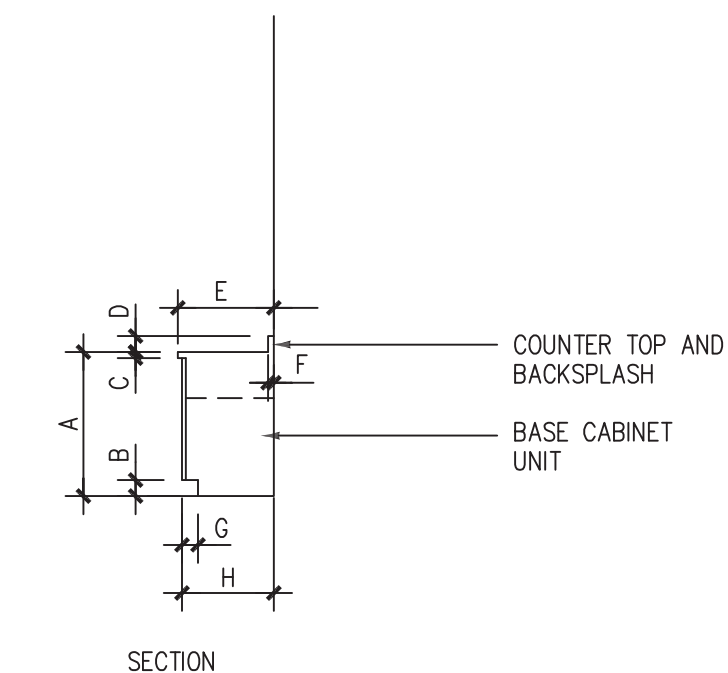
DESCRIPTION	SYMBOL AND TEXT
ROOM IDENTIFICATION room name room number	RMNAME1 100
DOOR door number, min door strike side clearance distances	1'-6" MIN 1'-0" MIN 6" TYP
INTERIOR ELEVATION elevation number sheet number	3A 10A XXXX 5A 7A
WINDOW	
ELEVATION surface type designation T.O.B. = top of bearing T.O.F. = top of floor	EL. 0.00 T.O.F.
AREA DRAIN Existing floor to drain	A.D.
SLOPE OF EXISTING DECK Arrow Indicates General Direction of Surface Drainage Parallel to Guard Booth for Reference	
FIRE EXTINGUISHER Wall Mounted Cabinet, O.F.C.I	F.E.
ELECTRICAL PANEL recessed panel	E.P.
HOSE BIB Existing	H.B.
ACCENT WALL wall accent color	PT-A
DOWNSPOUT refer to plan for size and locations	D.S.

DESCRIPTION	SYMBOL AND TEXT
WALL TYPE 1 PREFABRICATED WALL SYSTEM	
WALL TYPE 2 6" METAL STUDS @ 16" O.C.	

SYMBOL	NOTE
F01	BLOCK OUT CONCRETE PAD TO RECEIVE DS AT TWO LOCATIONS.
F02	SLOPE LANDING TO DRAIN TOWARDS STEPS, 1/4 : 12 MAX.
F03	CONC. BROOM FINISH, ADA RAMP, 36" CLEAR WIDTH, 1 1/2" DIA. BARRIER RAIL ONE SIDE. TOP RAIL 36" ABOVE RAMP, BOTTOM RAIL CENTERED 4" ABOVE RAMP SURFACE. EXTEND RAIL 12" BEYOND RAMP / STAIR, TYP. ALL RAILS ARE GALV. FINISH WITH SURFACE MOUNT BASE PLATES.
F04	11" CAST IN PLACE CONCRETE TREAD, RISERS OF EQ. HEIGHT WITH ABRASIVE SAFETY STRIP
F05	CUSTOM CABINETS AND 30" TALL ACCESSIBLE,SOLID SURFACE COUNTER TOPS BY GUARD BOOTH MANUFACTURER
F06	RUBBER PEMKO TRANSITION AT BOTTOM OF RAMP, FIRST 12" OF RAMP.
F07	(E) CHARGING RACK BY OWNER

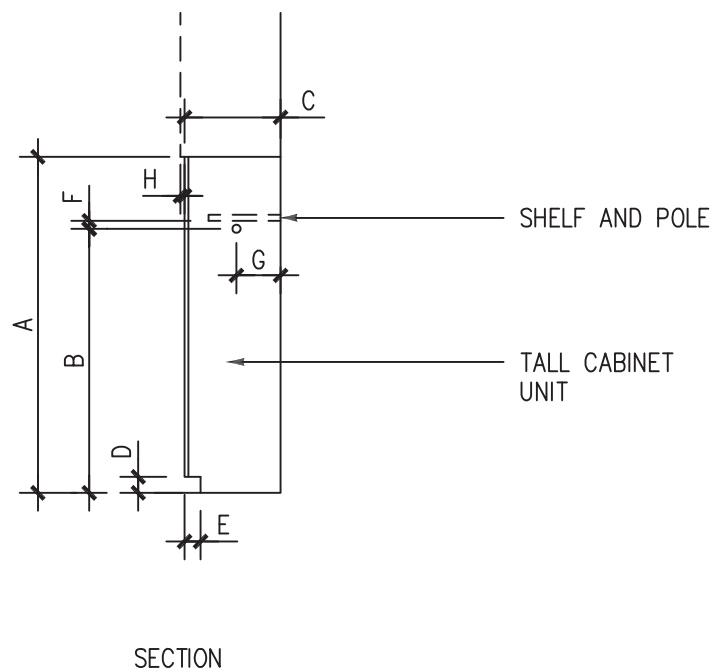
BASE CABINETS

SCALE: 1/4"=1'-0"



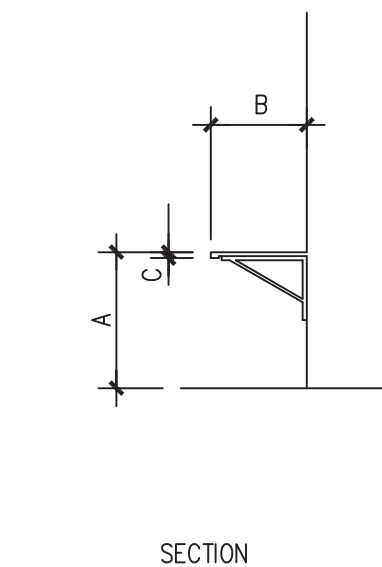
TALL CABINETS

SCALE: 1/4"=1'-0"

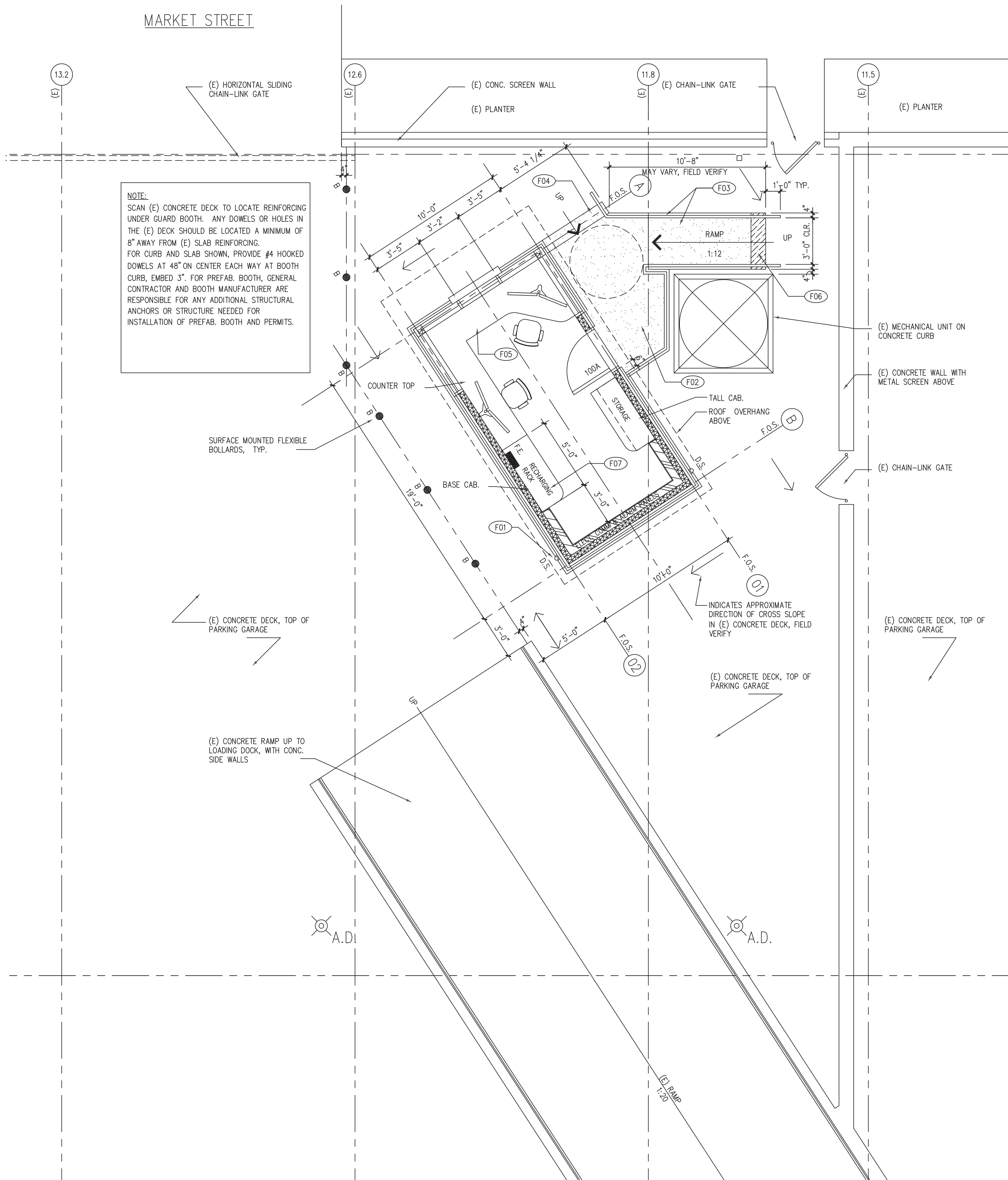


COUNTER TOP

SCALE: 1/4"=1'-0"

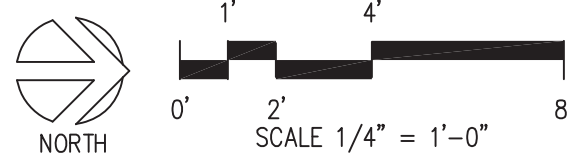


MARKET STREET

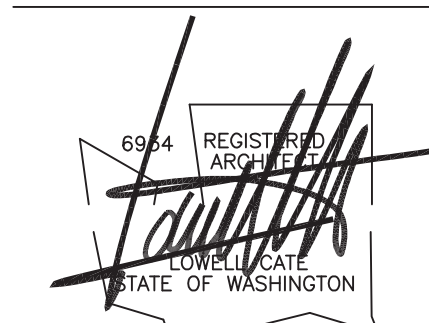


FLOOR PLAN

SCALE: 1/4"=1'-0"



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 PLOTTER: HP
 PLOT: CITY OF TACOMA A19-099 CON. CTR. GUARD HOUSE (01 DRAWINGS) 02 CON. PILOT SET A19-099 - ADDING

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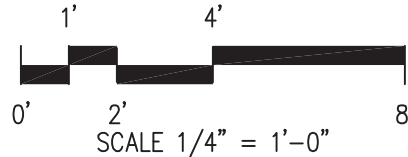
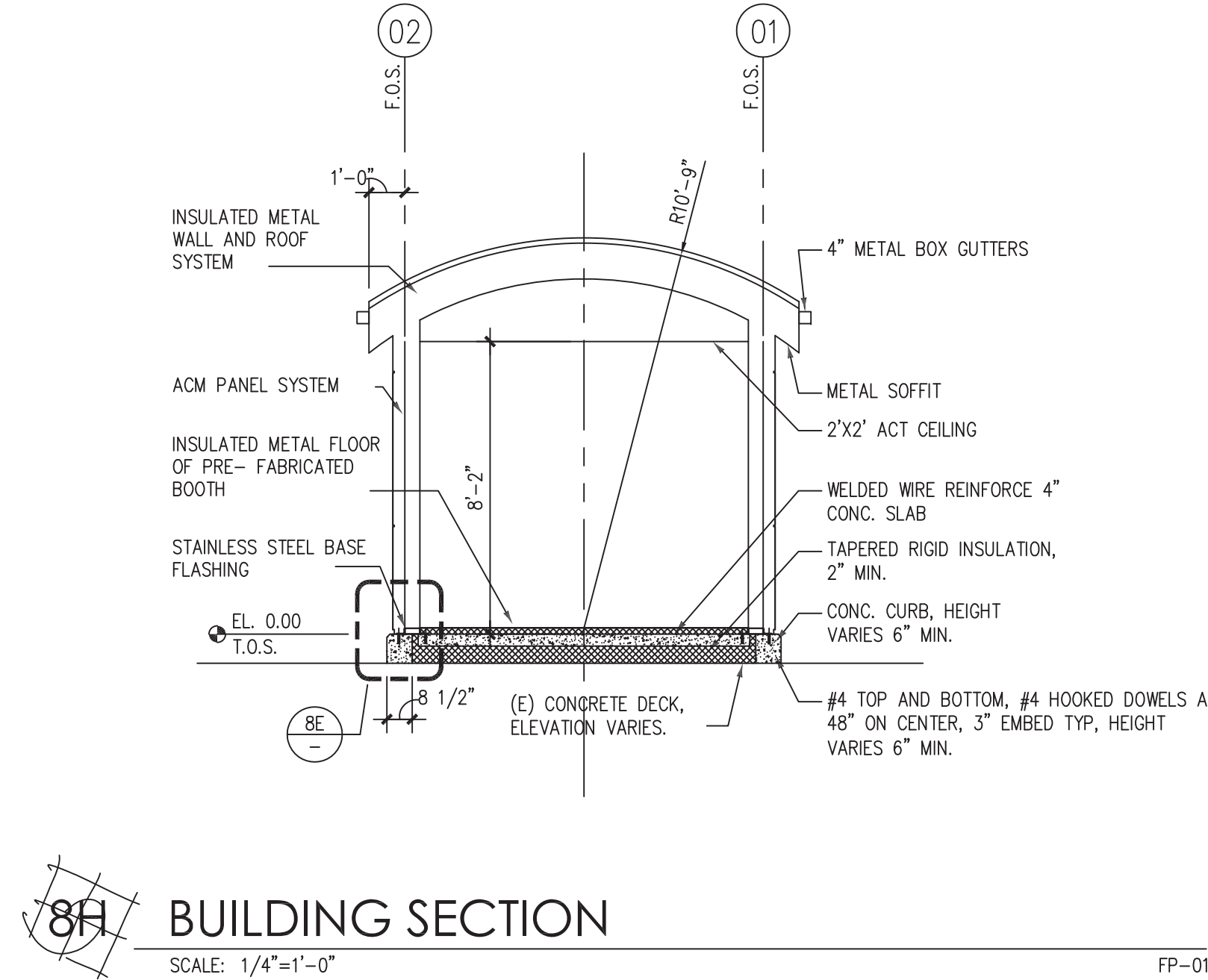
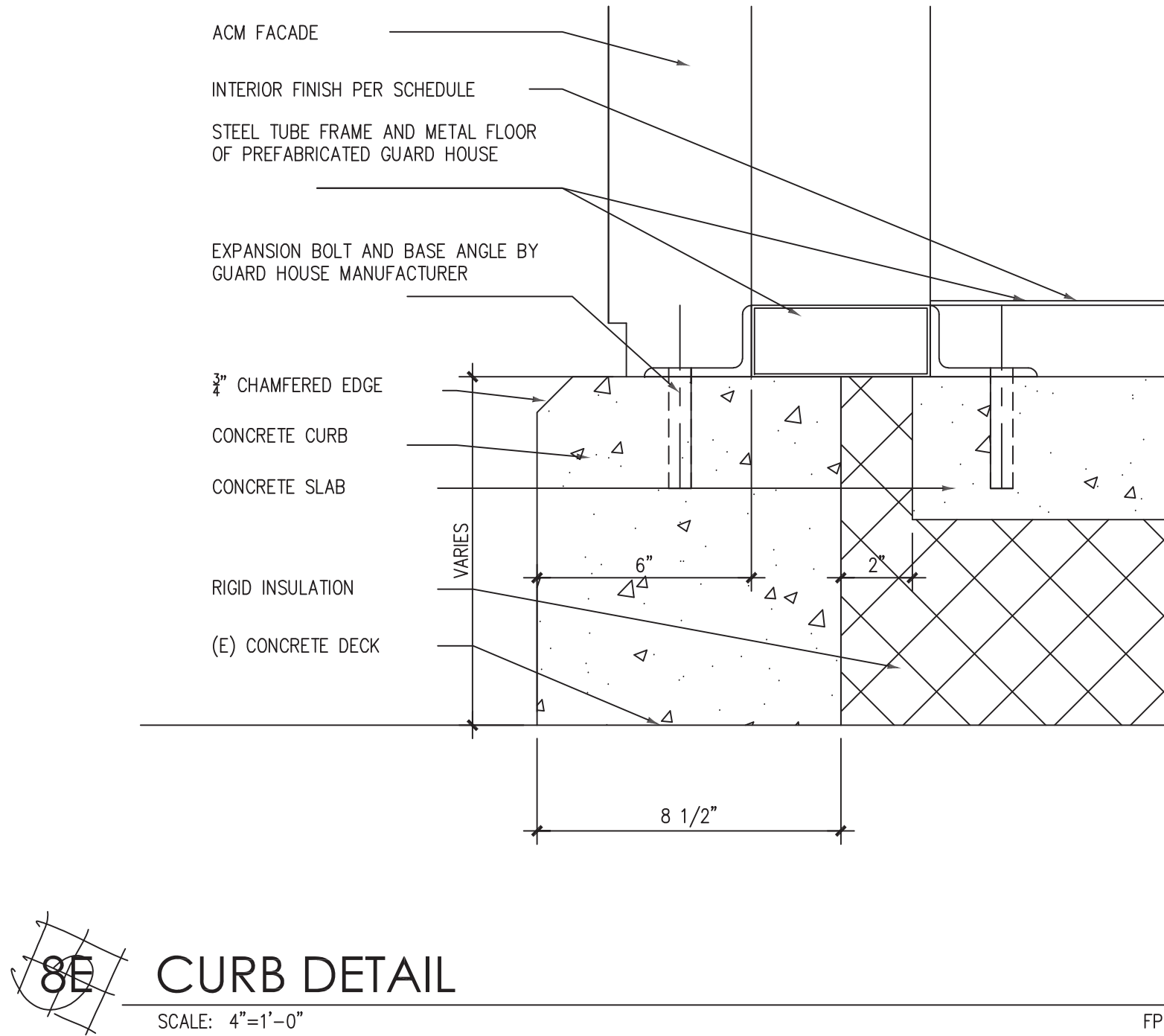
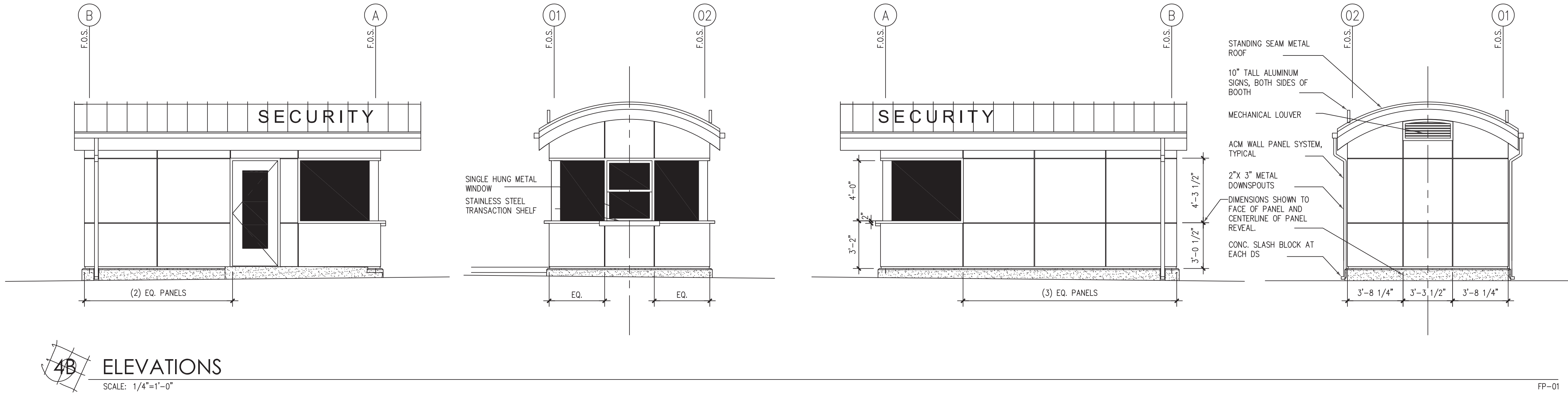
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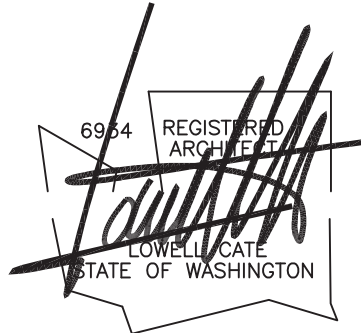
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AMERICAN INSTITUTE OF ARCHITECTS



HELIX DESIGN GROUP, INC.

ELEVATIONS
AND
SECTIONS

GUARD
HOUSE

G.T.C.C.

TACOMA, WASHINGTON

REVISION DATE

DATE JOB NO.
04.29.20 A19-099

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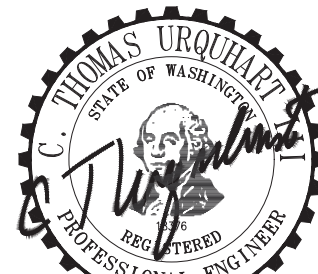
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AMERICAN INSTITUTE OF ARCHITECTS



SIGNED
April 29, 2020

HELIX DESIGN GROUP, INC.

GUARD HOUSE

G.T.C.C.

TACOMA, WASHINGTON

REVISION DATE

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DATE: 04-29-20 JOB NO. A19-099

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ABBREVIATIONS (SOME ABBREVIATIONS MAY NOT BE USED ON DRAWINGS)	
ABBREV	DESCRIPTION
A or AMP	AMPERES
AIC	AMPERE INTERRUPTING CAPACITY
ARCH	ARCHITECTURAL
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
DIA	DIAMETER
DIV	DIVISION
DRC	DIGITAL ROOM CONTROLLER
DWG	DRAWING
ELEC	ELECTRIC
EMT	ELECTRICAL METALLIC TUBING
EXST or (E)	EXISTING
FA	FIRE ALARM
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE CONDUIT
GND	GROUND
HP	HORSEPOWER
HZ	HERTZ
J-BOX	JUNCTION BOX
KVA	KILOVOLT AMPERES
KW	KILOWATTS
LTG	LIGHTING
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPS
MCM or KCM	THOUSAND CIRCULAR MILS
MDP	MAIN DISTRIBUTION PANELBOARD
MDS	MAIN DISTRIBUTION SWITCHBOARD
MIN	MINIMUM
MOP or MOCP	MAXIMUM OVERCURRENT PROTECTION
N or NEUT	NEUTRAL
NTS	NOT TO SCALE
ø or PH	PHASE
PNL	PANEL
RM	ROOM
SP	SINGLE POLE
STD	STANDARD
SW	SWITCH
SWBD	SWITCHBOARD
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
V	VOLTS
VA	VOLT AMPERES
W	WATTS
W/	WITH
WP	WEATHER PROOF

ELECTRICAL LEGEND (SOME SYMBOLS MAY NOT BE USED ON DRAWINGS)			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
DISTRIBUTION			
	PANELBOARD – SURFACE	 # – IDENTIFYING NUMBER # – IDENTIFYING NUMBER # – IDENTIFYING NUMBER B – SHEET WHERE DETAIL SHOWN 	POWER DUPLEX RECEPTACLE (NEMA 5–20R) SUBSCRIPT: IG ISOLATED GROUND WC WATER COOLER REF REFRIGERATOR COP COPIER HWD HOT WATER DISPENSER MWO MICROWAVE OVEN P PEDESTAL WP WEATHERPROOF C CEILING DW DISHWASHER IWB INTERACTIVE WHITE BOARD TV VIDEO DISPLAY OUTLET. REFER TO ARCHITECTURAL DETAILS FOR MOUNTING HEIGHT
	PANELBOARD – EXISTING (SURFACE PANEL SHOWN)		
	PANELBOARD – FLUSH		
	SWITCHBOARD OR MCC (DRAWN TO SCALE)		
	DISCONNECT SWITCH		
	FUSED DISCONNECT SWITCH		
	DRY TYPE TRANSFORMER		
	CROSS LINES INDICATE NUMBER OF CONDUCTORS IF MORE THAN TWO WIRE CIRCUIT. LONG DENOTES NEUTRAL. DOT DENOTES GROUND. DOTTED HASH MARK INDICATES ISOLATED GROUND. CONDUIT IS 1/2" AND CONDUCTOR IS #12 AWG UNLESS OTHERWISE NOTED OR SCHEDULED. ONLY BRANCH CIRCUIT HOMERUNS ARE INDICATED WITH CONDUCTOR COUNT. SEE GENERAL ELECTRICAL NOTES.		
	WIRING CONCEALED IN CEILING OR WALL		
	WIRING CONCEALED UNDERGROUND OR BELOW FLOOR		
	WIRING EXPOSED		
	WIRING HOMERUN		
	CONDUIT UP, DOWN		
	FLEXIBLE WIRING CONNECTION		
LIGHTING			
	EMERGENCY FIXTURE – TWIN HEAD		
LIGHTING CONTROL			
	SINGLE POLE TOGGLE SWITCH		
	SWITCH SUBSCRIPTS: 2 DOUBLE POLE 3 THREE WAY 4 FOUR WAY D DIMMER EP EXPLOSION PROOF K KEY OPERATED LV LOW VOLTAGE LVM LOW VOLTAGE MASTER M MANUAL MOTOR STARTER W/OVERLOADS MC MOMENTARY CONTACT P SWITCH W/PILOT LIGHT T TIMER WP WEATHERPROOF a, b, c MULTIGANG SWITCH STATION		
FIRE ALARM			
	SYMBOL FOR FIRE ALARM CONTROL PANEL		
	REMOTE ANNUNCIATOR		
	MANUAL STATION		
	HORN SPEAKER WITH VISUAL SIGNAL (STROBE)		
	SMOKE DETECTOR		

GENERAL ELECTRICAL NOTES:

- BRANCH CIRCUIT NOTES:
 - VERIFY BRANCH CIRCUIT WIRE COUNT BEFORE PULLING CONDUCTORS. PROVIDE REQUIRED CONDUCTORS TO EACH OUTLET AND DEVICE FOR PHASE, NEUTRAL AND EQUIPMENT GROUND BASED ON CIRCUIT DESIGNATIONS SHOWN AND AS OTHERWISE INDICATED ON PLANS OR NOTE BELOW.
 - FOR ALL LIGHTING CIRCUITS, CONTINUE NEUTRAL CONDUCTOR TO SWITCH OUTLET LOCATIONS.
 - PROVIDE MANUFACTURER APPROVED PIN INSERT STYLE HANDLE TIES BETWEEN SINGLE POLE CIRCUIT BREAKERS SERVING BRANCH CIRCUITS SHARING A COMMON NEUTRAL.
- MINIMUM CONDUIT SIZE FOR HOMERUNS AND FOR CONDUIT INSTALLED OUTDOORS SHALL BE 3/4 INCH.
- REFER TO ARCHITECTURAL ELEVATIONS FOR LOCATION AND MOUNTING HEIGHT OF WIRING DEVICES. REPORT CONFLICTS TO ARCHITECT/ENGINEER FOR RESOLUTION.
- VERIFY BOX REQUIREMENTS OF EQUIPMENT FURNISHED UNDER DIVISION 26, 27 & 28.
- FIRE ALARM SYSTEM IS BIDDER DESIGN. FIRE ALARM SYSTEM IS EXISTING JOHNSON CONTROL METASYS. PROVIDE NEW FIRE ALARM CONTROL PANEL IN NEW GUARD HOUSE AND DEMO EXISTING. MODIFY AND EXTEND EXISTING SYSTEM AS REQUIRED TO NEW PANEL LOCATION. PORTIONS OF EXISTING RACEWAY SYSTEM MAY BE REUSED. PROVIDE J–BOXES AND FIRE ALARM CABLING AS REQUIRED. TWO COMPLETE PLANS AND SPECIFICATIONS FOR THE FIRE ALARM SYSTEM INSTALLATION OR MODIFICATION SHALL BE SUBMITTED TO AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL PRIOR TO SYSTEM INSTALLATION. MAINTAIN FIRE WATCH WHILE SYSTEM IS OFFLINE.

PHASING NOTES:

- INSTALL ALL WIRING AND PATHWAYS COMPLETE TO GUARD HOUSE.
- INSTALL LOW VOLTAGE SYSTEMS WIRING AND NEW CONTROLLERS.
- INSTALL TELECOMMUNICATIONS SYSTEMS COMPLETE.
- AFTER GUARD HOUSE IS OPERATIONAL CUT OVER REMAINING LOW VOLTAGE SYSTEMS FOR ACCESS CONTROL, CCTV, FIRE PUMP CONTROL AND ELEVATOR CONTROL. RELOCATE COMPUTERS AND MONITORS. TEST SYSTEM. COORDINATE WITH OWNER FOR A DAY WHEN NO EVENTS ARE TAKING PLACE.
- CUT OVER FIRE ALARM TO NEW PANEL. TEST. COORDINATE WITH OWNER FOR A DAY WHEN NO EVENTS ARE TAKING PLACE.

CURRENT LOW VOLTAGE VENDOR CONTACT INFORMATION:

FIRE ALARM JOHNSON CONTROL: 208–623–3617	CARRIE GALLAGHER CARRIE.L.GALLAGHER@JCI.COM
--	--

ELEVATOR SCHINDLER: 206–291–3002	JESSE SELLAND JESSE.SELLAND@SCHINDLER.COM
--	--

SHEET LIST TABLE	
SHEET #	SHEET TITLE
E0.01	LEGEND, NOTES & ABBREVIATIONS
E1.01	EXHIBIT ONE–LINE RISER DIAGRAM
E1.03	EMERGENCY POWER ONE–LINE RISER DIAGRAM
E3.30	3RD FLOOR POWER PLAN
E3.31	ENLARGED POWER PLAN
E3.40	4TH FLOOR POWER PLAN
E3.50	5TH FLOOR POWER PLAN
E7.00	DETAILS

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Job Number: 19-115

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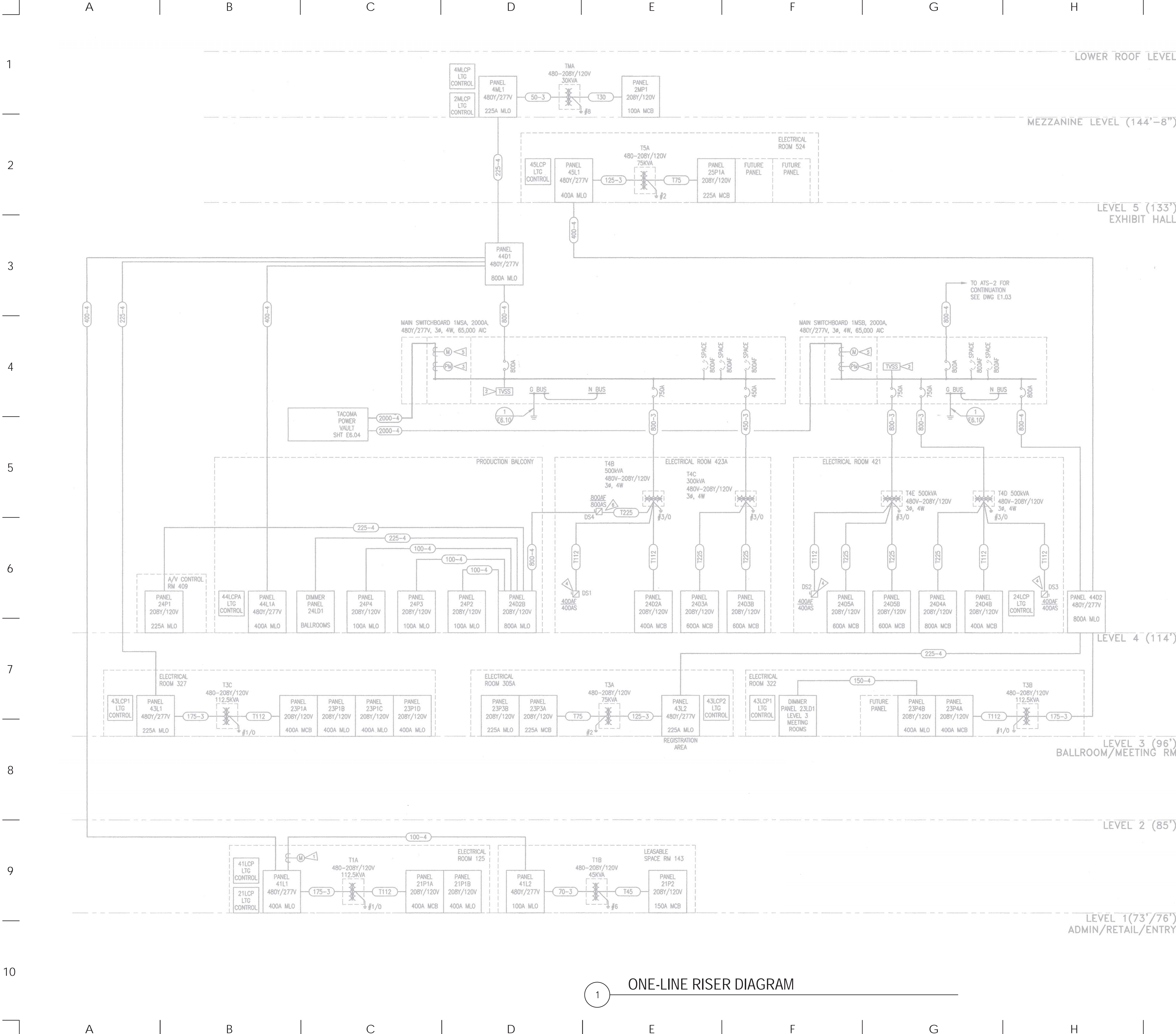
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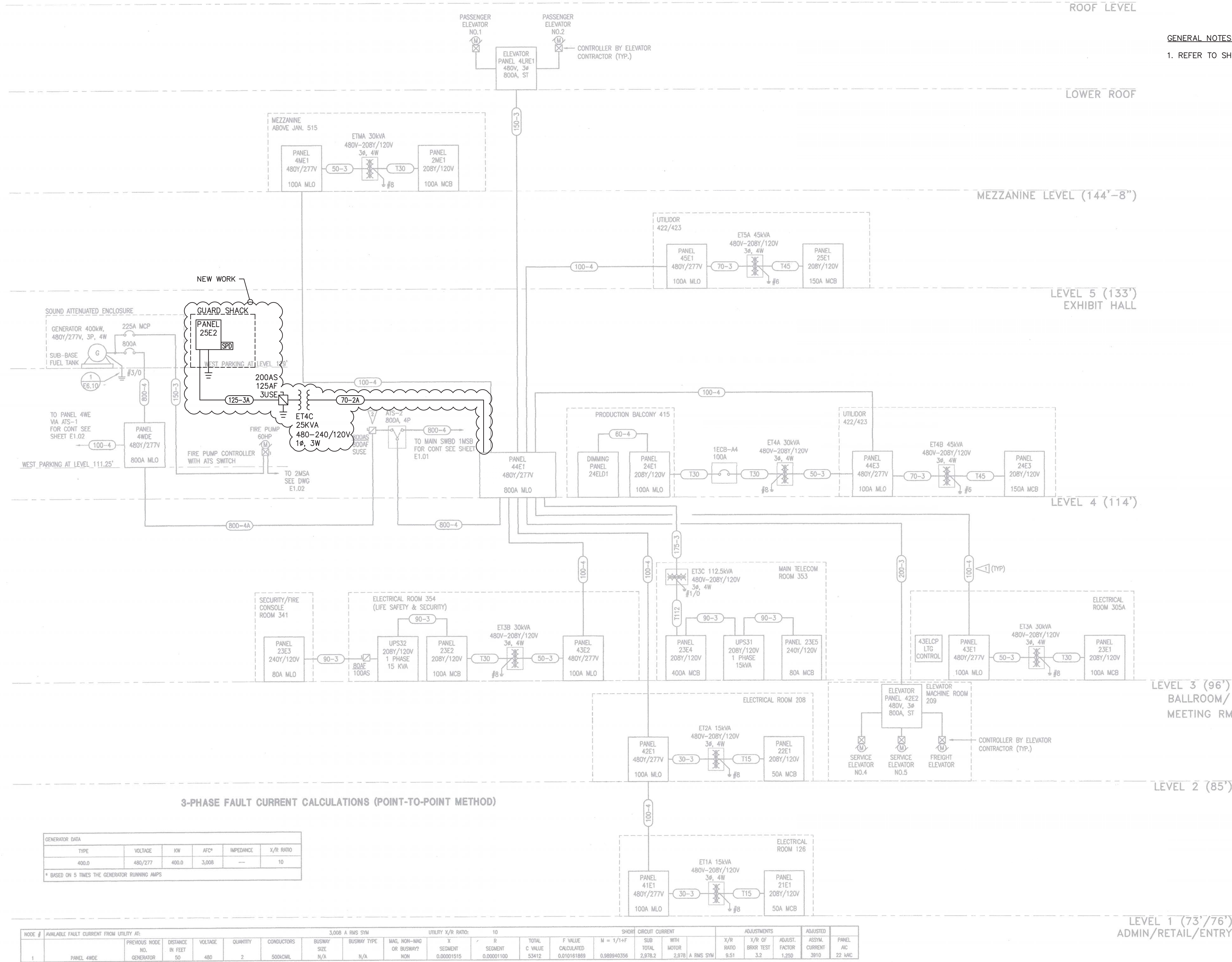
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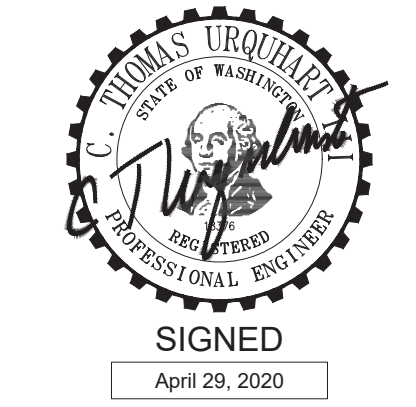
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GENERAL NOTES:
 1. REFER TO SHEET E1.01 FOR FEEDER SCHEDULE.



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EMERGENCY
 POWER ONE-LINE
 RISER DIAGRAM

GUARD
 HOUSE

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3RD FLOOR POWER PLAN

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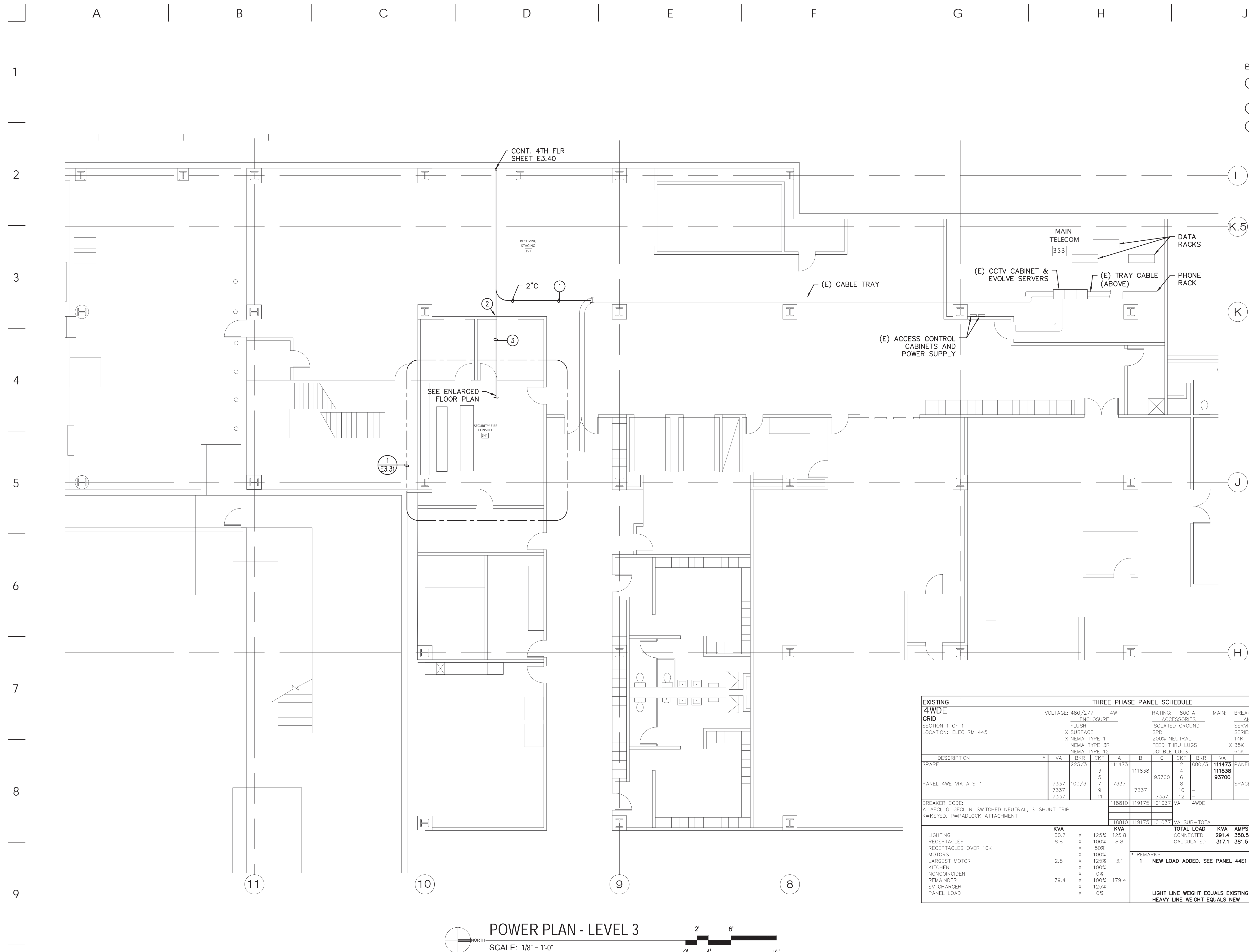
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POWER PLAN - LEVEL 3

SCALE: 1/8" = 1'-0"

EXISTING

4WDE

GRID

SECTION 1 OF 1

LOCATION: ELEC RM 445

VOLTAGE: 480/277

4W

ENCLOSURE

FLUSH

X SURFACE

X NEMA TYPE 1

NEMA TYPE 3R

NEMA TYPE 12

RATING: 800 A

ACCESSORIES

ISOLATED GROUND

SPD

200% NEUTRAL

FEED THRU LUGS

DOUBLE LUGS

MAIN: BREAKER

A/C ASSEMBLY

SERVICE RATED

SERIES RATED

14K

X 35K

85K

DESCRIPTION	*	VA	BKR	CKT	A	B	C	CKT	BKR	VA	DESCRIPTION
SPARE		225/3	1	11147/3		111838		2	800/3	111473	PANEL 44E1 VIA ATS-2
			3	5				4		111838	
			5				93700	6		93700	
PANEL 4WE VIA ATS-1		7337	100/3	7	7337			8	-		SPACE
		7337		9		7337		10	-		
		7337		11			7337	12	-		
BREAKER CODE:						118810	119175	101037	VA 4WDE		
A=AFCI, G=GFCI, N=SWITCHED NEUTRAL, S=SHUNT TRIP											
K=KEYED, P=PADLOCK ATTACHMENT											
						118810	119175	101037	VA SUB-TOTAL		
						KVA					
LIGHTING		100.7	X	125%		125.8					
RECEPTACLES		8.8	X	100%		8.8					
RECEPTACLES OVER 10K			X	50%							
MOTORS			X	100%							
LARGEST MOTOR		2.5	X	125%	3.1						
KITCHEN			X	100%							
NONCONCURRENT			X	0%							
REMAINDER		179.4	X	100%	179.4						
EV CHARGER			X	125%							
PANEL LOAD			X	0%							
						* REMARKS					
						1 NEW LOAD ADDED. SEE PANEL 44E1					

LIGHT LINE WEIGHT EQUALS EXISTING

HEAVY LINE WEIGHT EQUALS EXISTING

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E3.30

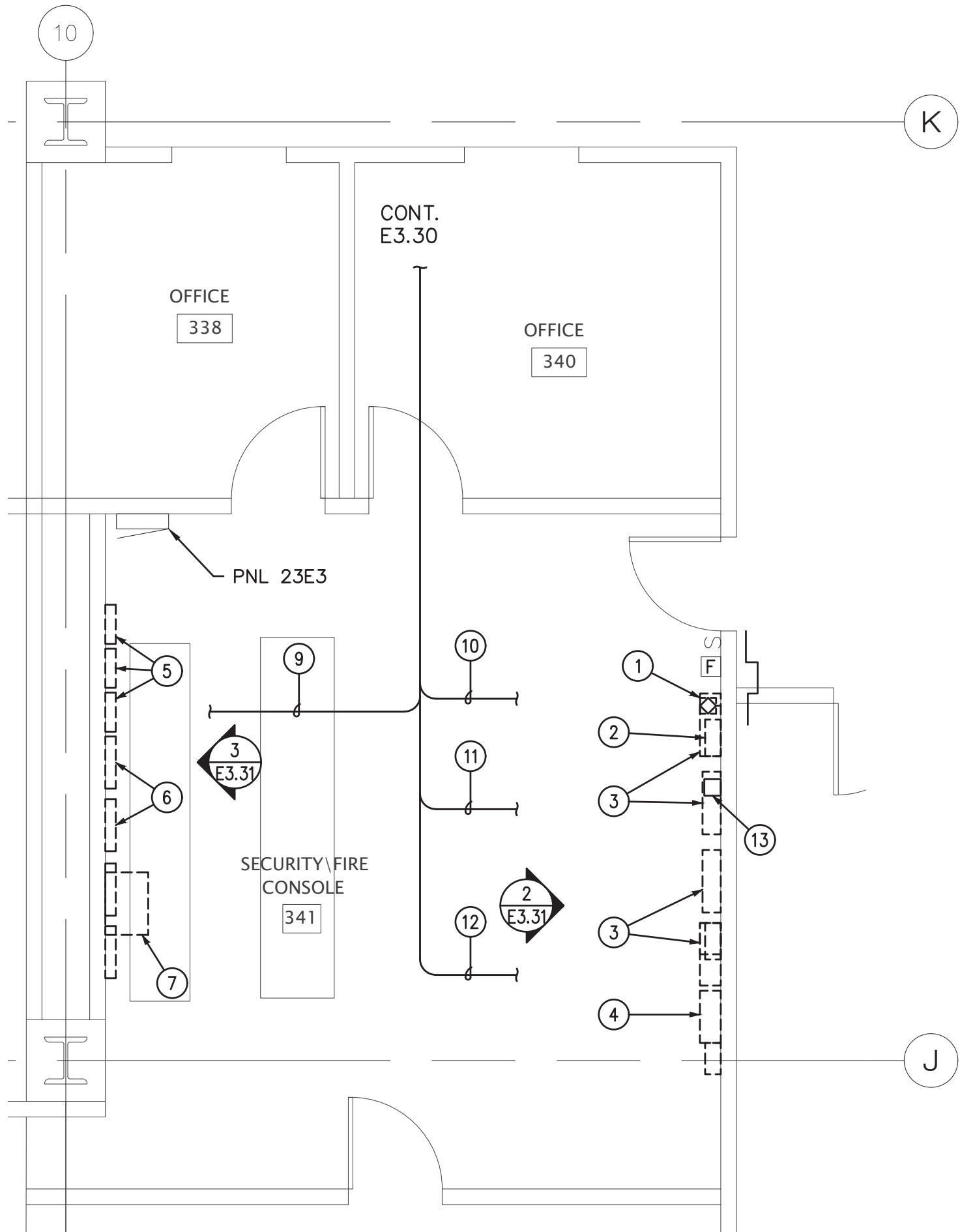
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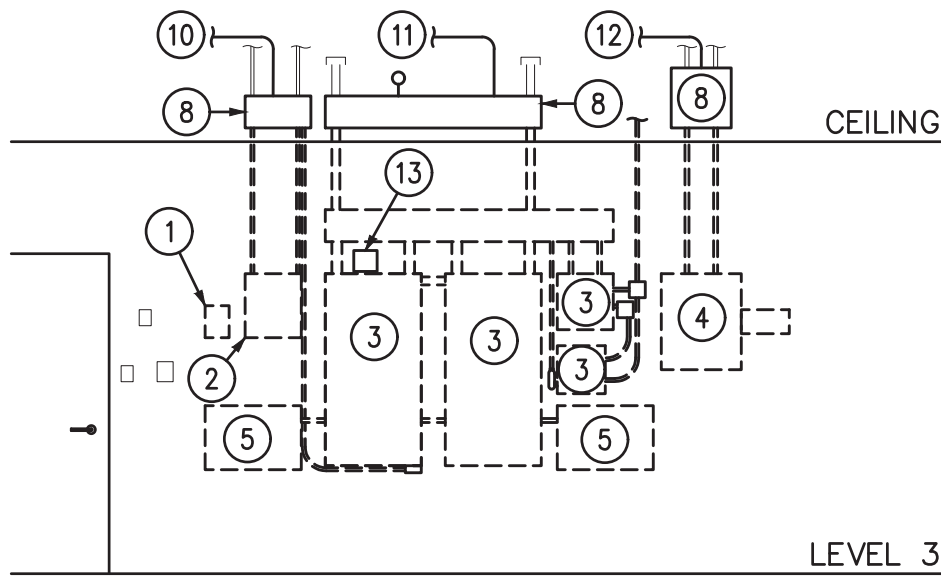
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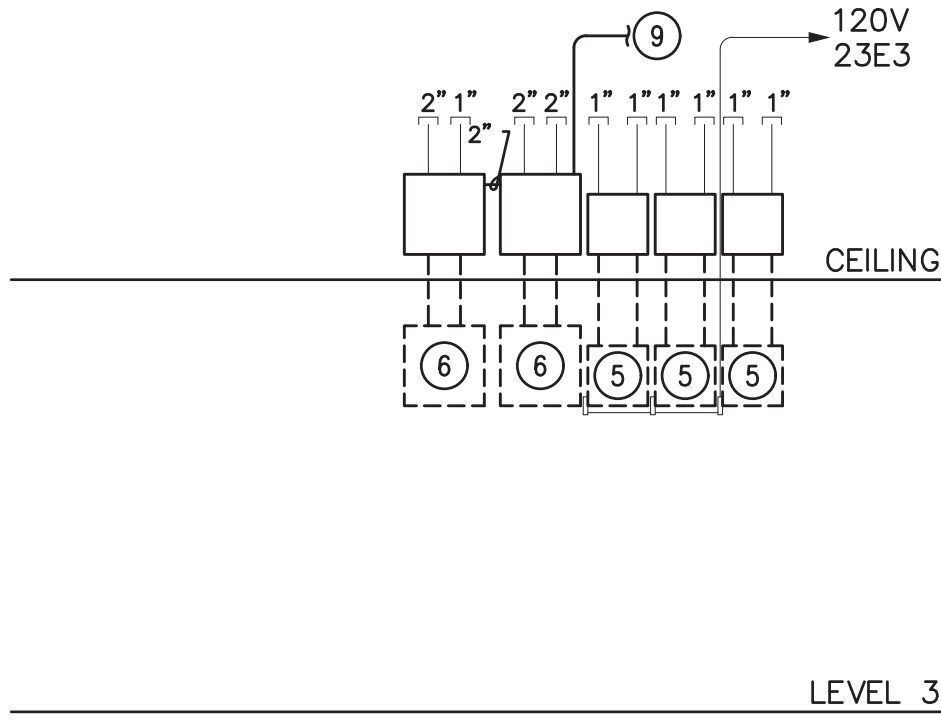
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1
 SECURITY ROOM PLAN
 SCALE: 1/4" = 1'-0"



2
 SECURITY ROOM WALL ELEVATION - NORTH
 SCALE: N.T.S.



3
 SECURITY ROOM WALL ELEVATION - SOUTH
 SCALE: N.T.S.

GENERAL NOTES:

1. SEE SHEET E0.01 FOR PHASING REQUIREMENTS.

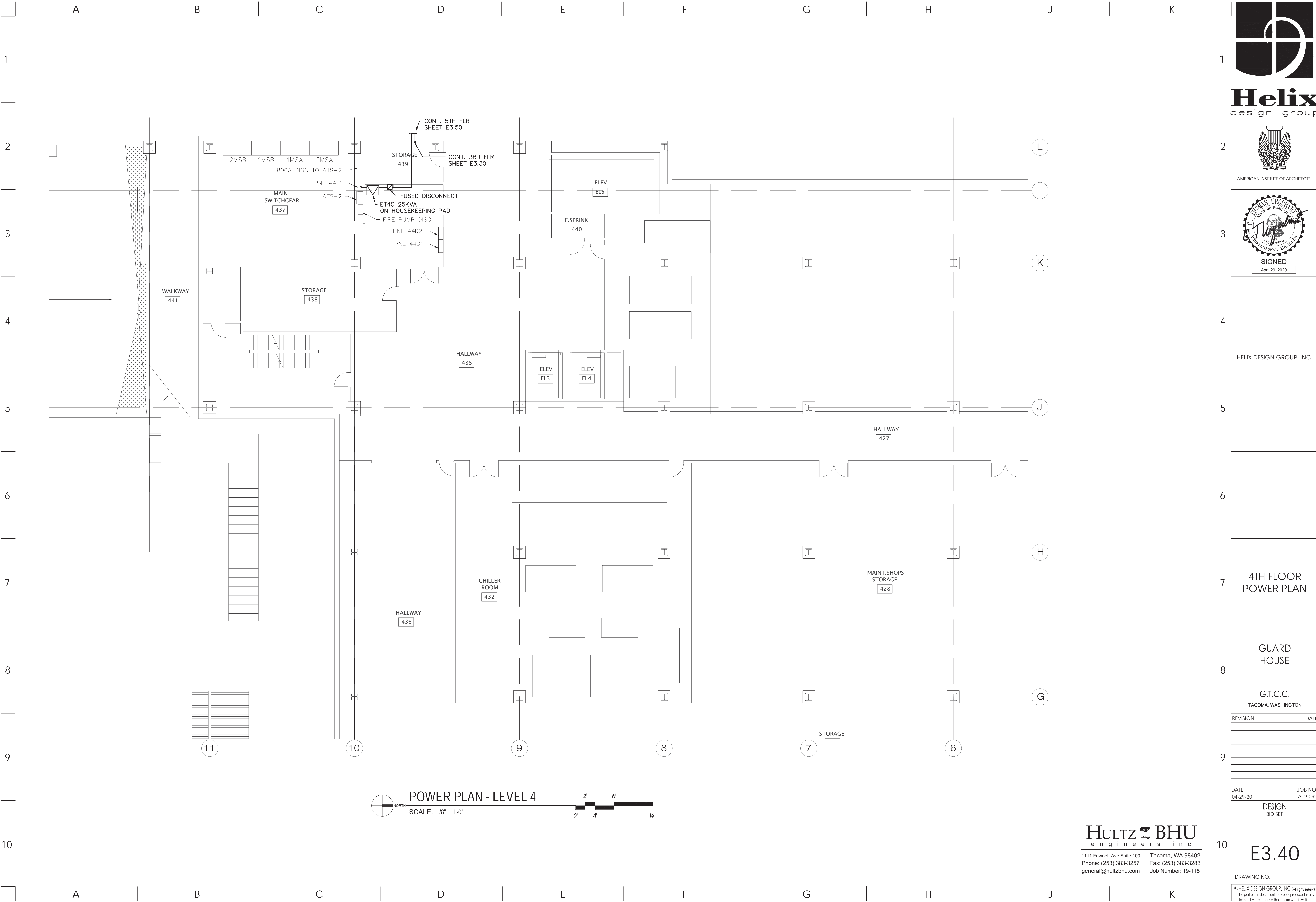
PLAN NOTES:

- ① GENERATOR ANNUNCIATOR: RELOCATED TO NEW GUARD HOUSE. KEEP SAFE FROM DAMAGE. REMOVE CABLING FROM PATHWAY BACK TO GENERATOR. PROVIDE BLANK COVER PLATE OVER EXISTING FLUSH BACK BOX.
 ② FIRE PUMP CONTROL PANEL: RELOCATED TO NEW GUARD HOUSE AFTER NEW WIRING IS INSTALLED. EXTEND WIRING FROM NEW J-BOX ABOVE CEILING.
 ③ FIRE ALARM CONTROL: REMOVE AFTER NEW FIRE ALARM CONTROL PANEL IS INSTALLED IN NEW GUARD HOUSE AND READY TO BE OPERATIONAL. EXTEND WIRING FROM NEW J-BOX ABOVE CEILING.
 ④ ELEVATOR CONTROL PANEL: KEEP SAFE FROM DAMAGE. RELOCATE TO NEW GUARD HOUSE AFTER NEW WIRING IS INSTALLED.
 ⑤ POWER SUPPLIES: RAISE CABINETS & POWER CONNECTION TO ABOVE CEILING. MODIFY WIRING AS REQUIRED.
 ⑥ CCTV CONTROL PANELS: RAISE CABINET TO ABOVE CEILING. MODIFY WIRING AND CABLES.
 ⑦ SERVERS FOR CCTV & ACCESS CONTROL AND MONITORS. RELOCATE TO NEW GUARD HOUSE.
 ⑧ PROVIDE NEW J-BOXES ABOVE CEILING AS REQUIRED. INTERCEPT EXISTING WIRING AND EXTEND TO NEW GUARD HOUSE.
 ⑨ (CATV) 2"C - CABLES PER CATV CONTRACTOR. ASSUME (8) CAT6A CABLES PLUS PULL LINE
 ⑩ (FIRE PUMP CONTROL) 1 1/4"C - (14) #12 THWN.
 ⑪ (FIRE ALARM) 2 1/2"C - CABLES PER FIRE ALARM SHOP DRAWINGS. ASSUME 34 4/C FIRE ALARM CABLE PLUS PULL LINE
 ⑫ (ELEVATOR CONTROL) 1 1/4"C - CABLES PER ELEVATOR CONTRACTOR. ASSUME (2) 4/C #14 SHIELDED, (2) CAT 6A, 4#14THWN, PULL LINE.
 ⑬ MONITORING STATION DISABLE SWITCH. RELOCATE TO NEW GUARD HOUSE.

LOAD CALCULATION - EXISTING UTILITY METER 480/277 VOLTS			
Description		Remarks	
Utility Metered 12 Month Peak KW Demand		776.00 KW	Aug-19
Power Factor		0.9	
12 Month Peak KVA		862.22 KVA	
Demand Factor		125%	NEC 220.87
Adjusted Demand		1077.78 KVA	
New Load Added		15.37 KVA	TRANSFORMER ET4C
Total Load		1093.15 KVA	
		1314.89 AMPS	

EXISTING 44E1		THREE PHASE PANEL SCHEDULE												
GRID		VOLTAGE: 480/277 4W				RATING: 800 A		MAIN: LUG						
SECTION 1 OF 1		ENCLOSURE				ACCESSORIES		AIC ASSEMBLY						
LOCATION: MAIN SWITCHGEAR RM 437		FLUSH				ISOLATED GROUND		SERVICE RATED						
		X SURFACE				SPD		SERIES RATED						
		X NEMA TYPE 1				200% NEUTRAL		14K						
SIEMENS		NEMA TYPE 3R				FEED THRU LUGS		35K						
		NEMA TYPE 12				DOUBLE LUGS		X 65K						
CODE	DESCRIPTION	*	VA	BKR	CKT	A	B	C	CKT	BKR	VA	DESCRIPTION	*	CODE
	ELEVATOR 4LRE1		12740 12740 12740	300/3	1 3 5	51040			2 4 6	300/3	38300 38300 38300	ELEVATOR 42E2		
	PROVISIONS			250A	7 9 11	0			8 10 12	175/3		PANEL 23E4 VIA ET3C		
OPT	PANELS 42E1 & 41E1		17990	100/3	13	25180			14	100/3	7190	PANEL 4ME1		OPT
OPT			15300		15		21270		16		5970			OPT
OPT	PANEL 43E1		12630		17			17840	18		5210			OPT
OPT			5170	100/3	19	20480			20	100/3	15310	PANEL 44E3		OPT
OPT			5330		21			18420	22		13090			OPT
OPT	PANEL 43E2		3960		23			17060	24		13100			OPT
OPT			200	100/3	25	7020			26	100/3	6820	PANEL 45E1		OPT
OPT			8300		27		14300		28		6000			OPT
OPT	PROVISIONS		6300		29			7760	30		1460			OPT
				125A	31	7753			32	70/2	7753	PANEL 25E2 VIA ET4C		1
					33		6808		34		6808			
					35			0	36					
	PROVISIONS			125A	37	0			38	125A		PROVISIONS		
					39		0		40					
					41			0	42					
BREAKER CODE: A=AFCI, G=GFCI, N=SWITCHED NEUTRAL, S=SHUNT TRIP K=KEYED, P=PADLOCK ATTACHMENT						111473	111838	93700	VA	44E1				
						111473	111838	93700	VA	SUB-TOTAL				
										</				

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April 29, 2020

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4TH FLOOR
POWER PLAN

GUARD
HOUSE

G.T.C.C.
TACOMA, WASHINGTON

REVISION	DATE

DATE	JOB NO.
04-29-20	A19-099

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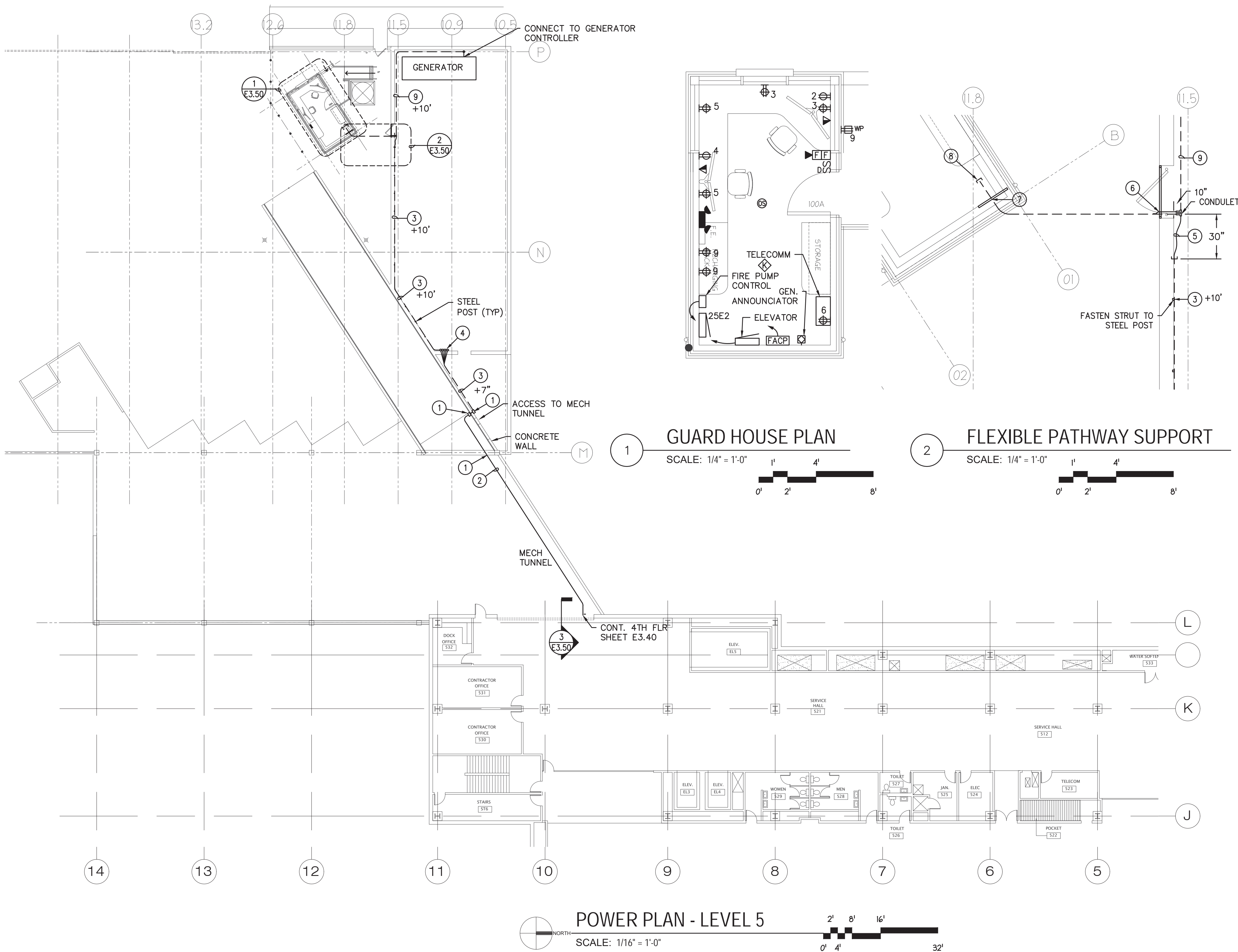
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GENERAL NOTES:

1. SEE SHEET E0.01 FOR PHASING REQUIREMENTS.

PLAN NOTES:

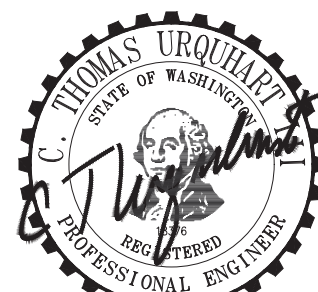
- 1 CORE DRILL AND THEN SEAL AROUND CONDUIT.
- 2 ROUTE CONDUITS THROUGH MECH TUNNEL. PROVIDE SUPPORTS & SECURE PER CODE.
- 3 RACK CONDUITS VERTICALLY ON WALL W/ DEEP UNITSTRUT & STRAPS.
- 4 ROUTE CONDUITS HORIZONTAL THROUGH GAP BELOW STEEL WALL & ABOVE 3'-6" CONCRETE WALL THEN UP TO 10' HEIGHT.
- 5 PROVIDE 30" FLEXIBLE SEALTIGHT.
- 6 PROVIDE UNISTRUT RACK W/ SPAN BETWEEN WALL OPENING AT TIP AND BOTTOM. PROVIDE ROLLER SUPPORTS UNISTRUT #P2474 FOR EACH CONDUIT.
- 7 ENTER ATTIC SPACE OF GUARD HOUSE. PROVIDE UNISTRUT SUPPORT SO CONDUIT SPAN IS 10 FEET OR LESS. SEAL CONDUIT ENTRIES INTO ATTIC.
- 8 ROUTE CONDUIT TO LOW VOLTAGE SYSTEMS.
- 9 1"C-(1) CAT6 OR 16 #14 FROM GENERATOR TO ANNUNCIATOR PANEL IN GUARD HOUSE. VERIFY CONDUCTOR WITH GENERATOR MANUFACTURER.



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5TH FLOOR
POWER PLAN

GUARD
HOUSE

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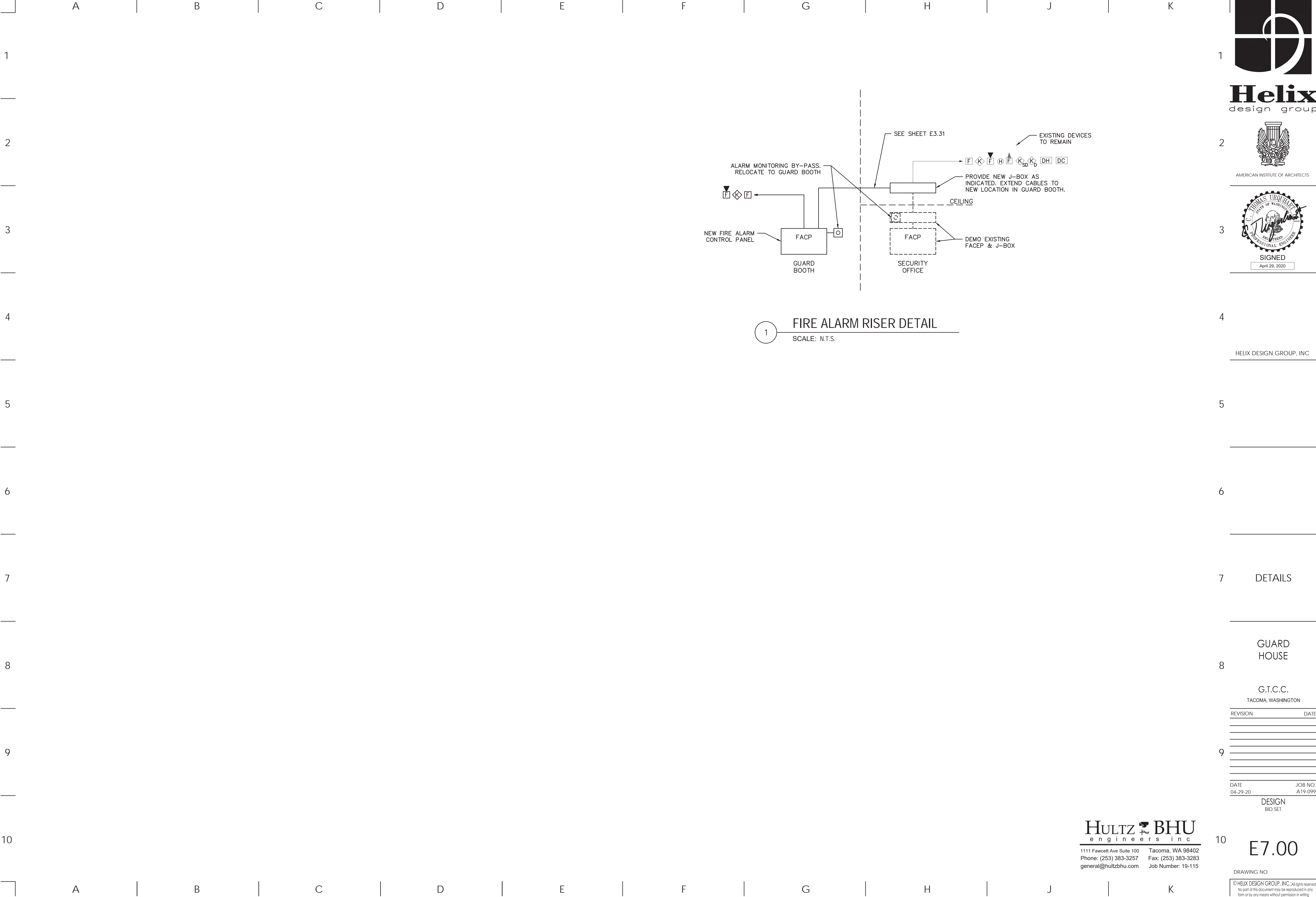
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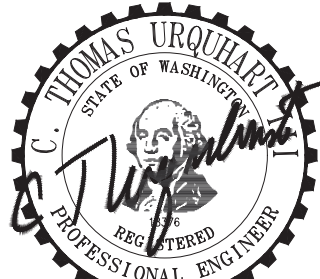
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