Exhibit B

SECTION 00 51 00

WAGE RATES

PART 1 - GENERAL

1.01 SUMMARY

A. The State of Washington prevailing wage rates applicable for this public works project, which is located in King County, may be found at the following website address of the Department of Labor and Industries: https://secure.lni.wa.gov/wagelookup/

B. Based on the bid submittal deadline for this project, the applicable effective date for prevailing wages for this project is **JULY 2024**. A copy of the applicable prevailing wage rates are also available for view at the office of the Owner, located at 17425 Ballinger Way NE, Lake Forest Park, WA 98155. Upon request, the Owner will mail a hard copy of the applicable prevailing wages for this project.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 00 90 00

GENERAL CONDITIONS

PART 1 - GENERAL

1.01 ALTERATION OR MODIFICATION OF SPECIFICATIONS AND PLANS

A. No alteration or modification of the terms and conditions of the Contract will be binding unless outlined in detail in a separate written addendum, and then only when properly signed and attested by the City.

1.02 ADDITIONS OR DELETIONS

A. The City reserves the right to add or delete work from this Contract, subject to appropriate adjustments to the contract price.

1.03 NOTICE TO PROCEED

A. The Notice to Proceed will be given after the Contract has been executed and approved by the City or, where applicable, by State or Federal agencies responsible for funding any portion of the Project. The Contract Time allowed for Substantial Completion of the Work shall begin within 10 calendar days after the date the Notice to Proceed is issued. The Contractor shall not commence the Work until the Notice to Proceed has been given by the City.

1.04 HOURS OF WORK

A. Contractor shall work within the allowed work hours in the City of Lake Forest Park:

Monday – Friday 7:00 a.m. to 8:00 p.m.

Saturday and holidays 9:00 a.m. to 6:00 p.m.

Sundays No Construction.

Holidays: no construction will be allowed on New Year’s Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day.

1.05 CONSTRUCTION TIME LIMIT

A. All of the work and materials contemplated to be included in this Project shall be completed within the time as stated in Contract ("Contract Time"). Contractor agrees to pursue completion of the Project at all reasonable times and to discontinue only if delayed by inclement weather. In the event that Contractor shall fail to proceed with the contemplated work for more than ten working days, Contractor shall be deemed to have abandoned the Project, and the City may elect to terminate the Contract and thereafter proceed to complete the Contract through its own forces or through an independent third party. In such event the Contractor herein shall be responsible for all expenses reasonably incurred by the City in completing the work. The contractor will also be responsible for all legal, engineering or other costs caused by the Contractor's abandonment, failure or refusal to complete the Project within the time provided.

1.06 DELAYS & EXTENSION OF TIME

A. The Contractor herewith specifically waives claims for damages for any hindrance or delay, excepting unreasonable delays caused by the City. In Lieu thereof, the Contractor will be granted equitable extensions of time for which liquidated damages will not otherwise be claimed by the City under the following circumstances:

1. A delay caused the Contractor by any suit or other legal action against the City will entitle the Contractor to an equivalent extension of time, unless the period of such delay exceeds ninety (90) calendar days. When such period is exceeded, the City will, upon request of the Contractor, in writing, either negotiate a termination of the Contract or grant a further extension of time, whichever may at the time be in the best interests of the City.

2. Time lost due to inclement weather which could not have been anticipated by Contractor, subject to the approval of the City, will entitle the Contractor to an extension equivalent to the total time lost, whether it be a single continuous period or the accumulated total of several periods.

3. If the volume of the specified work, measured in dollars, is increased over the total value shown in the Contractor's Bid Proposal, at the time the award of the Contract is made, the Contractor will, if the City agrees, be granted an extension of time proportionately equal to the impact on the Contract Time caused by the increase in the total value.

4. Should other unforeseen conditions occur beyond the reasonable control of Contractor, or should performance of work under a Change Order make the work more complex or difficult than originally specified and shown on the Plans, and such work, in the Contractor's opinion, requires more time to execute than allowed by the Contract, the Contractor shall notify the City in writing prior to the performance of such work, setting forth in detail its estimate of the added time required for such work. The City will, if such estimate is approved, allow an equitable extension of the Contract Time.

B. Suspension of work by City

1. The City may order all or any of the Work suspended for such period as it deems proper because of unsuitable weather or such other conditions beyond the control of the Contractor that prevent satisfactory and timely performance of the Work, or because of the failure of the Contractor to perform any provisions of the Contract or orders given to him/her. The Contractor shall not suspend work unless ordered or authorized to do so by the City, and the Contractor shall immediately comply with such an order when given. The Contractor shall resume the suspended work when ordered by the City to do so.

2. Suspension of work by the City shall not be grounds for any claim by the Contractor for damages. The periods of suspension including but not limited to unsuitable weather conditions beyond the control of the Contractor that prevent satisfactory and timely performance of the Work, shall be allowed as non-working calendar days unless the City concludes that the Contractor could have performed the suspended work if he/she had diligently prosecuted the Work prior to such suspension, and the Contract completion date shall be extended by such number of calendar days of parts thereof. This time extension shall be the Contractor's sole remedy and the Contractor shall not be entitled to any damages for delay associated with such suspension of work. Any suspension due to the failure of the Contractor to carry orders or perform work shall not be grounds for allowance of time but shall be counted as work days and not relieve the Contractor from any responsibility assigned under the Contract.

3. Upon encountering asbestos or materials suspected of containing asbestos, the Contractor shall stop work in the subject area and not remove, cut, or repair said material, nor shall the contractor enter or work in any area suspected of containing asbestos with damaged covering material, until so directed by the City or as specified by the Contract. The Contractor shall make every effort to minimize the impact of any disruption or stoppage of work, and promptly notify the City's Representative.

1.07 CONTRACT RESTRICTION

A. Time of Completion: The work of this Contract shall commence within ten (10) days the Notice to Proceed and shall be fully completed within the specified number of calendar days in the Contract. It is hereby understood and mutually agreed, by and between the Contractor and the City, that the date of beginning and the time for completion as specified in the Contract to be done hereunder are ESSENTIAL CONDITIONS of this Contract. The Contractor agrees that said Work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the City, that the time for the completion of the Work described herein is a reasonable time for the completion

of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

1.08 LIMITATIONS REGARDING CONTRACTOR'S CLAIMS FOR DAMAGES

A. All claims to the City for all work and damages of any kind arising from this Contract, shall be limited to the maximum amount appropriated by the City for this Project. Funds for this Project are limited and are public funds derived through Federal, State, Utility and or City taxes or property assessments appropriated for this Project through the budgeting process. The City's decision to award this Project is based upon the supposition that all costs will be held within the appropriated amount. The total Project appropriation shall be as stated in the City budget authorizing the Work herein. In the event the Project funding or appropriation equals the amount under Contract and an irreconcilable dispute between the City and the Contractor which the Contractor views as a breach of contract by the City excusing the Contractor from further performance, the Contractor and the City may agree to increase the Project appropriation and preserve the rights of both parties to future settlements or final resolution by a court of law.

B. Contractor agrees to limit all claims for extra work or damages of any kind whatsoever relating to this Contract to prices established by the units and lump sums bid herein and/or direct costs as provided under the force account provisions of WSDOT APWA, Section 1-09.6. By acceptance of a contract for the work herein, Contractor waives all claims for payment of damages which include or are computed on total costs of job performance, extended overhead, or other similar methods which do not relate to the prices stated herein or are not specific as to the actual, direct costs of contract work as defined in the WSDOT APWA force account provisions.

C. The above stated limitations on claims for damages shall apply only to disputed claims and shall not be construed to apply to payments for extra work pursuant to mutually agreed change orders or force account work in accordance with Sections 1-04.4 and 1-09.6 of the WSDOT APWA Standard Specifications incorporated herein; and is specifically understood that the City shall be responsible to appropriate funds for all work performed in accordance with Section 1-04 of the WSDOT APWA Standard Specifications.

1.09 EQUIPMENT AND MATERIALS SPECIFIED

A. Within these Contract Documents, certain items are specified by brand, style, trade name, or manufacturer in order to set forth a standard of quality, and/or preference by the City. It is not the intent of these General Conditions to exclude other processes or materials of a type and quality equal to those designated. Whenever a manufacturer’s name, brand, or item designation is given, it shall be understood that the words “or equal” follow such name or designation whether in fact they do

so or not. The phrase “or equal” is not to be construed so as to mean that material, equipment will be approved as equal by the City; such approval shall not be effective unless and until the item has been specifically approved in advance and in writing by the City. No additional compensation or extension of time will be allowed the Contractor for any changes required to adopt substitute material or equipment therefore, the Contractor’s proposal, including any approved substitutions shall include all costs for any modifications to the Work which may be necessary for approval and adaptation of the proposed substituted equipment.

1.10 SAFETY MEASURES

A. All Work under this Contract shall be performed in a safe manner. The Contractor and all subcontractors shall observe all rules and regulations of the Washington State Department of Labor and Industries, rules and regulations of OSHA, WISHA or any other jurisdiction, and all other applicable safety standards. The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal working hours.

B. The City’s Project Manager’s review of the Contractor’s work plan, sequence, schedule or performance does not and is not intended to include review or approval of the adequacy of the Contractor’s safety measures in, on, or near the construction site. The Project Manager does not purport to be a safety expert, is not so engaged in that capacity under this Contract, and has neither the authority nor the responsibility to enforce construction safety laws, rules, regulations, or procedures, or to order the stoppage of Work for claimed violations thereof.

C. The Contractor shall exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property. All exposed moving parts of equipment capable of inflicting injury by accidental contact shall be protected with sturdy removable guards in accordance with applicable safety regulations.

1.11 CHANGES IN THE WORK

A. The City may, at any time, without notice to the sureties, and without invalidating this Contract, by order designated or indicated to be a change order or directive, make any change, including modifications to, additions to or deletions from the Work within the general scope of the Contract, including but not limited to changes:

1. In the Plans and Specifications;

2. In the quantities or performance of the Work;

3. In the City-furnished facilities, equipment, materials, services or site; or

4. Directing acceleration or suspension of the performance of the Work.

B. If the Contractor intends to assert a claim for a change in work he/she shall, within 10 calendar days after the furnishing of its notice, submit to the City a written statement setting forth the general nature and monetary and other impact of such order, unless this period is extended, in writing, by the City.

C. Approval of certain changes and overruns must be made by the City. Therefore, it is imperative that changes or overruns be anticipated to allow enough time for approval prior to commencing the affected work.

D. Changes in the Work may be authorized in accordance with the General Conditions; charges for the work covered by approved change orders shall be submitted by the Contractor on an approved breakdown sheet and, unless otherwise agreed, the costs shall be determined in the following manner:

1. Additive Changes: Include direct labor costs, including foreman; direct costs of materials and equipment to be entered into the work; ownership or rental costs of any equipment during the time of use on the extra work per the current blue book; insurance; social security, old age and unemployment contributions; industrial insurance; direct contributions to labor as fringe benefits; subcontractor's proposals; plus a maximum of 10% of the total of the items listed hereinbefore as overhead and profit, which shall include the cost of performance bonds, and the cost of all "offsite, extended, or unabsorbed" overhead. The markup for overhead and profit, including the cost of performance bonds, for work performed by major subcontractors including mechanical and electrical subcontractors, shall be limited to a maximum of 8%.

2. Deductive Changes: Include direct labor costs, including foreman; direct costs of materials and equipment to be entered into, or omitted from, the work; ownership or rental costs of any equipment during the time of use for the period of the change; insurance; social security, old age and unemployment contributions; industrial insurance; direct contributions to labor as fringe benefits; subcontractor's proposals; plus 8% of the total items listed hereinbefore as a factor for overhead and profit. The factor for overhead and profit which shall be deducted for the work of major subcontractors including mechanical and electrical subcontractors shall be 5%.

E. Subcontract Proposals: Where a proposal from a subcontractor is involved in a change in the Work, the Contractor shall require that the subcontractor's proposal for the extra work be governed by the same requirements that govern the Contractor's costs for the extra work.

F. The Contractor shall not be entitled to any claim for 'extended overhead' or 'unabsorbed overhead', or any off-site overhead.

G. Change Order Form: Use approved and provided by the City for change orders.

1.12 INCREASED OR DECREASED QUANTITIES

A. In the case of unit prices, when accepted quantities of Work vary from the original bid quantities, payment will be at the unit contract prices for accepted work unless the total quantity of any contract item increases or decreases by more than 25% of the original bid quantity.

1.13 ONE-YEAR WARRANTY

A. The Contractor shall and hereby does warranty the work for a period of one (1) year after the date of final acceptance by the City of the Work. The Contractor shall repair, remove and replace any and all such Work, together with any other Work which may be displaced in so doing, that is found to be defective in workmanship and/or materials within said one-year period, without expense whatsoever to the City, ordinary wear and tear and unusual abuse or neglect expected. In the event of failure to comply with the above-mentioned conditions within two (2) weeks after being notified in writing, the City is hereby authorized to proceed to have the defects remedied and made good at the expense of the Contractor who hereby agrees to pay the cost and charges thereof immediately on demand. Such action by the City will not relieve the Contractor of the warranties required by this section or elsewhere in the Contract.

B. If a Performance and Payment Bond is used rather than retainage, the bonds shall continue in full force and effect until Final Acceptance of the physical Work by the City.

C. If in the opinion of the City, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the City or to prevent interruption of the operation of the City, the City will attempt to give the notice required by this section. If the Contractor cannot be contacted or does not comply with the City's request for correction within a reasonable time as determined by the City, the City may, notwithstanding the provisions of this secton, proceed to make such correction, the cost of which shall be charged against the Contractor. Such action by the City will not relieve the Contractor of the warranties required by this section or elsewhere in the Contract.

1.14 METHODS AND EQUIPMENT

A. The methods and equipment adopted by the Contractor shall be such as will secure a satisfactory quality of Work and will enable the Contractor to complete the Work in the time agreed upon. The selection and use of these methods and equipment is the responsibility of the Contractor.

1.15 LICENSES, INSPECTIONS, PERMITS, AND TAXES

A. The Contractor shall procure all permits and licenses, required inspections, pay all charges, fees and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the Work.

1.16 WORKER'S BENEFITS

A. The Contractor shall make all payments required for unemployment compensation under Title 50 RCW and for industrial insurance and medical aid required under Title 51 RCW. If any payment required by Title 50 or Title 51 is not made when due, the City may retain such payments from any money due the Contractor and pay the same into the appropriate fund.

B. The Contractor shall include in the various items in the Bid Proposal all costs for payment of unemployment compensation and for providing either or both of the insurance coverage's. The Contractor will not be entitled to any additional payment for: (1) failure to include such costs, or (2) determinations made by the US Department of Labor or the Washington State Department of Labor and industries regarding the insurance coverage.

C. After Final Completion of all Work on the Project, the Contractor shall submit a "Request for Release" to the Washington State Department of Labor and industries on the form they provide. The "Request for Release" form of the Department of Labor and Industries is also for the purpose of obtaining a release with respect to the payments of industrial insurance and medical aid premiums.

1.17 POSSESSION

A. The City reserves the right to use and occupy any portion of the improvements which have been completed sufficiently to permit use and occupancy, and such use and occupancy shall not be construed as an acceptance of the Work as a whole or any part thereby. Any claims which the City may have against the Contractor shall not be deemed to have been waived by such use and occupancy.

1.18 RISK OF LOSS

A. The Contractor will assume all risk of loss of materials, equipment or other supplies through theft, fire, act of God, or any other cause until the final acceptance of the Project has been submitted by the Engineer, and approval thereof by the City, which approval shall constitute acceptance of the Project by the City, and risk of loss shall thereafter transfer to the City. No partial payment or advance by the City

shall change the risk of loss as herein provided.

1.19 APPLICABLE LAW AND FORUM

A. Except as hereinafter specifically provided, this Contract shall be governed by and construed according to the laws of the State of Washington. Any suit arising herefrom shall be brought in King County Superior Court, which forum shall have sole and exclusive jurisdiction and venue.

1.20 RETAINAGE

A. Retainage will be held back at 5% of each pay request. Retainage will be held in an account at the direction of the Contractor, per the forms included in these documents. Any costs associated with hold these funds in any account shall be borne by the Contractor. Retainage shall be available to the City to meet obligations which the Contractor incurs but does not meet, or to meet obligations to the City or City's Representative incurred through conditions of the Contract. Retainage does not relieve the Contractor of any obligations of the Contract, nor of any financial obligation which retainage is not sufficient to meet. Retainage or use of retainage shall not reduce the Contractor's requirements under this Contract.

1. Per RCW 60.28.051: "Upon completion of a contract, the state, county or other municipal officer charged with the duty of disbursing or authorizing disbursement or payment of such contracts shall forthwith notify the the department of revenue, the employment security department, and the department of labor and industries of the completion of contracts over thirty-five thousand dollars. Such officer shall not make any payment from the retained percentage fund or release any retained percentage escrow account to any person, until he or she has received from the department of revenue, the employment security department, and the department of labor and industries certificates that all taxes, increases, and penalties due from the contractor, and all taxes due and to become due with respect to such contract have been paid in full or that they are, in each department's opinion, readily collectible without recourse to the state's lien on the retained percentage."

2. Per RCW 60.28.011, requires the disbursing office must also observe a forty-five (45) day period from the date of semi-final acceptance, before the release of retainage to allow a reasonable period of public notification in order to place any liens or claims. The date of semi-final acceptance is the date the Council authorizes same.

B. It is the Contractor's responsibility to see that all subcontractors comply with the above. Progress payments will not be released until all subcontractors have complied.

C. If the Contractor wishes to set up an escrow account for retainage deposits, an escrow agreement must be submitted for review at least thirty (30) days prior to first deposit.

1.21 DISPUTE RESOLUTION

A. Should the parties be unable to resolve a dispute arising from the operation of the Contract, the parties agree to submit the dispute to binding arbitration as provided by chapter 7.04A RCW. The arbitrator shall be as selected by the parties or, if the parties are unable to agree, as appointed by a King County Superior Court judge; the prevailing party shall be awarded costs as a part of the decision of the arbitrator.

B. "Costs" shall include, without limiting the generality of such term, expense of investigation of any claim, consulting engineering expense, expense of depositions, exhibits, witness fees, including reasonable expert witness fees and reasonable attorney's fees, and also includes all such costs and fees incurred in connection with any appeals. The obligation of payment under this clause shall be incorporated in any decision rendered in such action.

1.22 NONDISCRIMINATION AND AFFIRMATIVE ACTION

A. Unless the Contractor is exempt by Presidential Executive Order 11246 as amended by Executive Order 11375, the Contractor agrees not to discriminate against any client, employee, or applicant for employment of services because of race, creed, color, national origin, sex, marital status, age, or the presence of any sensory, mental or physical handicap with regard to, but not limited to, the following: employment upgrading; demotion or transfer; recruitment or recruitment advertising; lay-offs or termination's; rates of pay or other forms of compensation; selection for training; rendition of services. It is further understood that any Contractor who is in violation of this clause or an applicable Affirmative Action Program shall be barred forthwith from receiving awards of any purchase order from the City of Lake Forest Park unless a satisfactory showing is made that discriminatory practices or noncompliance with applicable Affirmative Action Programs have terminated and that a recurrence of such acts is unlikely; this includes the compliance with Sections 503 and 504 of the Vocational Rehabilitation Act of 1973 and Sections 2012 and 2014 of the Vietnam Era Veterans Readjustment Act of 1984.

1.23 MINORITY AND WOMEN BUSINESS ENTERPRISE

A. Contractor agrees that he/she shall actively solicit the employment of minority group members. Contractor further agrees that he shall actively solicit bids for the subcontracting of goods or services from qualified minority businesses. Contractor further agrees to consider the grant of subcontracts to said minority bidders on the

basis of substantially equal proposals in the light most favorable to said minority businesses. Upon request Contractor shall furnish evidence of his/her compliance with these requirements of minority employment and solicitation.

END OF SECTION

DIVISION 01

General Requirements

SECTION 01 01 00

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. This Section covers the Scope of Work describing the construction activities that shall take place at the project site as included in the Contract Documents.

1.02 RELATED SECTIONS:

A. Section 00 90 00 – General Conditions

B. Section 01 74 19 - Construction Waste Material & Disposal

C. Section 02 41 13 – Site Utility Removal

D. Section 02 42 93 – Building Deconstruction

E. Section 02 82 00 – Asbestos Abatement

F. Section 02 83 00 – Lead in Construction

G. Section 02 84 16 – Universal & Other Regulated Waste Activities

H. Section 31 25 00 – Erosion and Sediment Control

I. Section 32 31 13 – Chain Link Fences and Gates

1.03 SCOPE OF WORK

A. This contract includes work as described below. The description is summarized and may not include specific reference to all incidental work elements required to complete the contract. Include all labor, materials, equipment and incidentals required for completion of the work as shown on the Drawings and specified herein.

B. Installation and maintenance of temporary erosion and sedimentation controls; deconstruction and salvage of Buildings 1-5, and 9, down to finish floor; and installation of chain link fence.

C. Project permits specific to deconstruction and salvage activities including Lake Forest Park Demolition Permit have been obtained by the Engineer. The Contractor shall comply with all applicable requirements and regulations. The contractor shall apply and acquire the required Right-of-Way Use Permit, Side Sewer Capping Permit, and any associated permits for removal of electrical services by Seattle City Light.

1.04 CONTRACTS

A. There will be one Contract for the project, which includes the Work described in the Project Manual and Drawings.

B. The Contractor shall provide all items, articles, materials, operations or methods listed, noted or scheduled on the Drawings and/or Project Manual, including all labor, equipment and incidentals necessary and required for proper and timely completion of the Work. The Contractor shall use new materials unless specifically noted or directed.

C. Work not specifically covered in the project manual and or drawings shall be performed in accordance with the King County Roads Standards 2016, the King County Surface Water Design Manual 2016, or City, County, State or National reference standards.

1.05 USE OF DOCUMENTS

A. Technical Specifications are enumerated in the Table of Contents of the Project Manual. The numbering of Sections is for identification only and may not be consecutive. The Contractor shall check his/her copies of the Specifications with the Table of Contents to verify that they are complete. The Contractor shall notify the Engineer of incomplete copies.

1.06 COPIES FURNISHED

A. The Contractor shall be furnished with the Project Manual in PDF Format. The Contractor may obtain additional partial or complete copies by request at the pre-construction meeting. The Contractor can request additional copies from the Engineer at the cost of reproduction.

1.07 RECORD OF EXISTING IMPROVEMENTS

A. The Contractor shall provide to the Engineer, a digital recording that thoroughly documents the existing conditions of the entire project site and immediate vicinity, specifically including but not limited to all perimeter edge conditions, driveways, sidewalks, and roads adjacent to the site, all landscape elements and features, utility structures, and structures and surfaces on the site not scheduled for removal or repair. The Contractor shall have a responsible representative perform the recording or hire a digital recording production consultant that specializes in this function, and alert the Engineer as to the scheduled time and date of the recording in the event that the Engineer exercises the option of being present. One copy of the completed digital record shall be submitted to the Engineer prior to beginning work. One copy of the digital record shall be kept on file with the Contractor.

B. The Contractor shall utilize digital media for the record, as approved by the Engineer. Either voice-over moderated digital video or digital still photos with captions are the required format options. Digital formats requiring proprietary software will not be accepted.

C. During the course of inspection and electronic documentation, the Contractor shall

identify existing improvements to remain that, in the opinion of the Contractor, are beyond any reasonable potential for repair. Should those improvements become damaged during the course of this Contract, then during the course of the inspection, the Contractor shall submit in writing for the Engineers concurrence, a list and description of all such existing improvements.

D. Where damage to existing improvements to remain that are not previously documented as described in paragraph 1.07.C above occurs, as a result of the execution of the Contract, the Contractor agrees to provide repair to, or replacement of, the improvement at the Contractor's expense, as described by the City of Seattle Standard Plans and Specifications (most recent edition) and/or the Seattle Department of Parks and Recreation Design Standards, regardless of the condition of the improvement prior to proceeding with the work.

1.08 CONTRACTOR USE OF PREMISES

A. Hours of Work

1. Refer to Section 00 90 00 GENERAL CONDITIONS for hours of work.

B. The Contractor shall lock the construction site daily using a City of Lake Forest Park supplied lock to allow city staff, emergency staff and maintenance crews to access the site. Contractor may use their own lock on a double lock configuration if desired.

C. Access

1. The Contractor and their subcontractors will be allowed on site only during the established working periods. The Contractor shall only use the designated location for site access.

2. The Contractor shall also address issues such as normal maintenance activities, service truck routes, special events, and other adjacent work that may be taking place.

D. Parking

1. The Contractor shall use available parking at City Hall, or the existing site driveway within the Project Limits as defined in the Contract Documents. No parking within the Town Center parking lot. City Hall parking lot is located directly in front of Lake Forest Park City Hall.

2. Keep all fire lanes clear and store no materials in City Hall parking areas unless specifically identified for such use on the contract drawings.

E. Staging

1. The Contractor shall use staging and storage areas as shown on the Contract Drawings.

F. Existing Facilities

1. Refer to Section 01 76 00 - Protection of Existing Facilities.

G. Contractor’s additional responsibilities while using the premises may include:

1. Maintaining pedestrian and vehicular access to and around existing facilities.

2. Not unreasonably encumbering site with materials or equipment.

3. Assuming full responsibility for protection and safekeeping of products stored on the premises.

4. Obtaining and paying for use of additional storage or work areas needed for operation.

5. Patching any damaged existing paving on adjacent properties.

6. Keeping roads and other areas clean of dirt and other debris.

1.09 STORAGE AND PROTECTION

A. Store products in accordance with manufacturer's instruction, seals and labels intact and legible.

1. Store products subject to damage by the elements in weather-tight enclosures.

2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.

3. Storage of hazardous materials and wastes shall be in accordance with local, State and Federal fire codes and regulations.

4. Note requirements on Materials Safety Data Sheets (MSDS).

B. Exterior Storage:

1. Store fabricated products above ground. Position on blocking or skids; prevent soiling or staining. Cover products subject to deterioration with impervious sheet coverings. Provide adequate ventilation to avoid condensation.

2. Store loose granular materials in well-drained areas on solid surfaces. Prevent mixing with foreign matter.

C. Do not store materials for other projects on site.

D. Waste Material Disposal: Refer to Section 01 74 19 - Construction Waste Material and Disposal.

1.10 SALVAGED MATERIALS

A. Salvage only those items that are noted in the Contract Documents and in Section 02 42 93 - Building Deconstruction for Building Salvage Schedule. The Engineer retains first right of refusal to all salvaged materials, equipment, and or products identified or not identified in the Contract Documents that are affected as part of the Contract Work.

1.11 DISPOSAL OF DEBRIS

A. Refer to Section 01 74 19 – Construction Waste Management and Disposal. All disposal of debris resulting from the Contract Work, unless specifically allocated to another scope of work, shall be the responsibility of the Contractor. This includes scheduling, costs and interference in the use of trash collecting, containers, trucks, etc. The Contractor is responsible for awareness of, understanding of, and compliance with all local, state and federal regulation regarding the disposal of any hazardous and non-hazardous wastes.

1.12 SAFETY AND ENVIRONMENTAL CONCERNS

A. The Contractor shall provide barricades, safety guards, temporary fencing, signage and/or other methods to secure unsafe conditions resulting from this construction. Contractor shall adhere to all safety regulations.

PART 2 - PROJECTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 02 70

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes administrative and procedural requirements for Measurement and Payment including unit prices.

B. Related Sections: The following sections contain requirements that relate to this section:

1. Section 01 02 80 - Modification Procedures

2. Section 01 40 00 - Quality Control

1.02 DEFINITIONS

A. Unit Prices are amounts proposed by bidders, stated on the Bid Form, as prices per unit of measurement for materials or services added to, or deducted from, the Contract Sum by appropriate modification, if the estimated quantities of Work required by the Contract Documents are increased or decreased.

1.03 PROCEDURES

A. Measurement and Payment:

1. For lump sum bid item payment procedures.

a. Provide cost breakdown of lump sum bid items over $20,000.

B. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, profit, and applicable taxes.

C. The Engineer reserves the right to reject the Contractor's measurement of work-in-place that involves use of established unit prices, and to have this work measured, at the Engineer's expense, by an independent surveyor acceptable to the Contractor.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 02 80

MODIFICATION PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY OF MODIFICATION PROPOSAL PROCEDURES:

A. Changes to the Work may be required due to field conditions, requests made by the Engineer, clarifications to the bid documents, or other needs that result in a change in the cost of the work and/or change in the number of contract days. The changes to the Work will be tracked individually as Modification Proposals (MP). Modification Proposals may either be prepared as a Field Directive, or as a request for pricing prior to proceeding with the work.

B. A change order will be issued for one or more MP's grouped into a single change order. Payment for changed work cannot be paid until the change order is finalized and signed by the City Project Manager.

C. The Modification Proposal shall clearly identify all labor, material, equipment, incidentals, including subcontractor's and supplier's invoices or quotes and Contractor's timecards. A reference from the latest approved schedule shall be attached justifying any time extension request. Mark ups for all overhead, profit, bond cost, B & O taxes, and insurance shall be added in accordance with the Engineer-approved "Mark-Up Agreement Form" (see Section 1.01.E below). The Modification Proposal form included at the end of this section will be used for directing the work to be done in one of the two manners described below.

D. The Contractor and Subcontractors (where required), shall provide a breakdown of labor costs including basic wage rates, fringe benefits, FICA, FUTA and SUCA add-ons. Where premium time is involved, the Contractor shall provide a breakdown of costs in the same detail.

E. Mark-ups for overhead and profit shall be in accordance with the mark-up rates negotiated by the Engineer and the Contractor prior to commencement of Construction.

1. General Company Overhead: Costs of the Contractor's home or corporate office necessary to run the business and to support the projects in the field. The Engineer may require that the general company overhead be supported with documentation of company financial information for the past two years.

2. Project Overhead: Indirect costs that cannot be identified with a specific construction activity but support the project as a whole. The Engineer may require documentation of actual costs accrued.

3. Profit: Net proceeds after expenses. The Engineer may require a detailed justification with supporting documentation of the company's financial

information for the past two years.

1.02 FIELD DIRECTIVE MODIFICATION PROPOSALS:

A. Changed conditions and/or unanticipated circumstances may require immediate revisions to Work which are essential and from which a delay would result in a time and/or cost penalty to the project. When such a condition exists, the Engineer's Construction Manager shall issue a written Field Directive to the Contractor on a form to be provided by the Engineer. The Field Directive will be identified with an MP number.

B. The Engineer's Construction Manager will provide direction for the Contractor identifying the necessary changes to be made.

C. When Field Directive Work is being done as a lump sum agreement, the Contractor shall provide pricing per 1.01C as needed to substantiate the lump sum amount within 15 days of the completion of the work, utilizing the "Modification Proposal Worksheet" provided by the Engineer..

D. When Field Directive Work is being done under Force Account pricing, a daily record of labor, materials, equipment use, subcontracted work, material disposal costs, and any other costs shall be kept. The Contractor shall use the "Daily Force Account Worksheet" (sample at the end of this section) provided by the Engineer for this purpose, and shall submit the completed form to the Engineer no later than the next Working Day.

1.03 LUMP SUM MODIFICATION PROPOSALS:

A. The Engineer may request priced proposals which either add or delete work prior to proceeding with any changes.

B. When requested, the Contractor shall provide pricing per 1.01.C of this section, utilizing the "Modification Proposal Worksheet" (sample at the end of this section) provided by the Engineer, for review and approval by the Engineer, prior to proceeding with the work.

1.04 CHANGE ORDERS:

A. A change order to the work will be issued including one or more Modification Proposals. The cumulative amount of adds and deducts along with the change in the number of days approved in each individual Modification Proposal shall be added to or deducted from the Payment and Performance. The change order shall incorporate the MP forms, and all required back up into a lump sum contract adjustment. Any change order that causes the modifications to the contract to exceed 25% of the original contract amount will require the Consent of Surety per instructions to bidders.

B. The payment for work performed under the change order cannot be made until the change order has been signed by the Director of Planning and Development Division.

C. If an individual change order exceeds 10% of the original contract amount and is over $50,000, a special review may be required by the Engineer. In such cases, the Engineer will notify the Contractor as to the special circumstance of the change.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 03 50

GENERAL PROJECT PROVISIONS

PART 1 - GENERAL

1.01 SUMMARY

A. The work described in this sections shall be accomplished in accordance with **Division 1 – General Requirements** of the Standard Specifications for Road, Bridge and Municipal Construction, 2022 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

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

C. The project-specific Special Provisions are not labeled as such. The GSPs are labeled under the headers of each GSP, with the date of the GSP and its source, as follows:

1. (May 18, 2007 APWA GSP)

2. (August 7, 2006 WSDOT GSP)

1.02 REFERENCE DOCUMENTS

A. Manual on Uniform Traffic Control Devices for Streets and Highways, currently adopted edition, with Washington State modifications, if any, and

B. Standard Plans for Road, Bridge and Municipal Construction, WSDOT/APWA, current edition

1.03 GENERAL PROVISIONS

1-01.3 Definitions

(March 13, 2012 APWA GSP)

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

Dates

Bid Opening Date

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

Award Date

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

Contract Execution Date

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

Notice to Proceed Date

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

Substantial Completion Date

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

Physical Completion Date

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

Completion Date

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

Final Acceptance Date

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

Supplement this Section with the following:

All references in the Standard Specifications, Amendments, or WSDOT General Special Provisions, to the terms “State,” “Department of Transportation,” “Washington State Transportation Commission,” “Commission,” “Secretary of Transportation,” “Secretary,” “Headquarters,” and “State Treasurer” shall be revised to read “Contracting Agency.”

All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location.”

All references to “final contract voucher certification” shall be interpreted to mean the final payment form established by the Contracting Agency.

The venue of all causes of action arising from the advertisement, award, execution, and performance of the contract shall be in the Superior Court of the County where the Contracting Agency’s headquarters are located.

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

Alternate
One of two or more units of work or groups of bid items, identified separately in the Bid Proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

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

Contract Documents
See definition for “Contract.”

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

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

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

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

1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders

Delete this Section and replace it with the following:

1-02.1 Qualifications of Bidder
(January 24, 2011 APWA GSP)

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

1-02.4(1) General

SUPPLEMENT THIS SECTION WITH THE FOLLOWING:

Minor variations and miscellaneous items may not be shown in the Plans. In accordance with the Standard Specifications, it shall be the Contractor's responsibility to examine the site, become familiar with all attendant conditions and determine the difficulties and work involved, and to accept the site in its existing condition at the time of the award of contract.

1-02.5 Proposal Forms

(June 27, 2011 APWA GSP)

DELETE THIS SECTION AND REPLACE IT WITH THE FOLLOWING:

The Proposal Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's name, address, telephone number, and signature; the bidder's D/M/WBE commitment, if applicable; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

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

1-02.6 Preparation of Proposal

(June 27, 2011 APWA GSP)

SUPPLEMENT THE SECOND PARAGRAPH WITH THE FOLLOWING:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.

5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid.

Delete the last paragraph, and replace it with the following:

The bidder shall make no stipulation on the bid form, nor qualify the bid in any manner. A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the bid form if any d/m/wbe requirements are to be satisfied through such an agreement.
A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the bid form if any d/w/mbe requirements are to be satisfied through such an agreement.

1-02.7 Bid Deposit
(October 1, 2005 APWA GSP)

SUPPLEMENT THIS SECTION WITH THE FOLLOWING:

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

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

1-02.13 Irregular Proposals
(MARCH 13, 2012 APWA GSP)

REVISE ITEM 1 TO READ:

1. A proposal will be considered irregular and will be rejected if:
a. The Bidder is not prequalified <u>when so required</u>;
b. The authorized proposal form furnished by the Contracting Agency is not used or is altered;
c. The completed proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
e. A price per unit cannot be determined from the Bid Proposal;
f. The Proposal form is not properly executed;
g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;

h. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification, if applicable, as required in Section 1-02.6;
i. The Bidder fails to submit written confirmation from each DBE firm listed on the Bidder's completed DBE Utilization Certification that they are in agreement with the Bidder's DBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provisions;
j The Bidder fails to submit DBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;
k. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
l. More than one proposal is submitted for the same project from a Bidder under the same or different names.

1-02.15 Pre Award Information
(October 1, 2005 APWA GSP)

REVISE THIS SECTION TO READ:

Before awarding any contract, the Contracting Agency 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 Contracting Agency 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 Authorized Representative,
6. Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located,
7. A copy of State of Washington Contractor's Registration, or
8. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

1-03.4 Contract Bond
(October 1, 2005 APWA GSP)

REVISE THE FIRST PARAGRAPH TO READ:

The successful bidder shall provide an executed contract bond for the full contract amount. This contract bond shall:
1. Be on a Contracting Agency-furnished form;
2. Be signed by an approved surety (or sureties) that:
a. Is registered with the Washington State Insurance Commissioner, and

b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Be conditioned upon the faithful performance of the contract by the Contractor within the prescribed time;
4. Guarantee that the surety shall indemnify, defend, and protect the Contracting Agency against any claim of direct or indirect loss resulting from the failure:
a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform the contract, or
b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond must be signed by the president or vice-president, unless accompanied by written proof of the authority of the individual signing the bond to bind the corporation (i.e., corporate resolution, power of attorney or a letter to such effect by the president or vice-president).

1-04.6 Variation in Estimated Quantities
(May 25, 2006 APWA GSP; may not be used on FHWA-funded projects)

Supplement this Section with the following:

The quantities for Bid Items #7, 8, 9 and 15 have been entered into the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original bid price, regardless of final quantity. These bid items shall not be subject to the provisions of 1-04.6 of the Standard Specifications.

1-05.4 Conformity With and Deviations from Plans and Stakes
The Contractor shall provide all surveying required to complete the project. The Contractor shall be responsible for setting, maintaining, and resetting all stakes for the Work. Calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility. All setting and resetting of monuments, property corners, and primary control, shall be completed by or under the direct supervision of a Washington State Registered Professional Land Surveyor (PLS). The PLS must be submitted for approval as a Subcontractor.
At the Contractor's request the Contracting Agency will provide the electronic CAD base files. Electronic files are provided for the Contractor's convenience and are not part of the Contract. Calculations shall be made from the Plans. The Contractor is advised to field verify the electronic files prior to their use in staking or other activities. If the signed and stamped Plans and electronic files differ, the signed and stamped Plans control. The Contractor shall not rely on the electronic files and no claim by the Contractor shall

be based on the electronic files or any difference between the electronic files and the signed and stamped Plans or site conditions.
The Contractor shall direct all questions regarding correct interpretation of provided data to the Authorized Representative. Failure to correctly interpret and utilize survey control data or Plans as provided by the Authorized Representative shall not constitute justification for a claim of extra Work. The Contractor shall immediately notify the Authorized Representative of any survey data discrepancy.
The Contractor shall maintain detailed survey records, including a description of the work performed on each shift, the methods utilized, and the control points used. The records shall be adequate to allow the survey to be reproduced. A copy of each day's record shall be provided to the Authorized Representative within three business days of Authorized Representative's request.
The meaning of words and terms used in this provision shall be as listed in "Definitions of Surveying and Associated Terms" current edition, published by the American Congress on Surveying and Mapping and the American Society of Civil Engineers.
The survey work shall include but not be limited to the following:

1. Primary and Secondary Control: Verify and use the primary horizontal and vertical control furnished by the Contracting Agency, and expand into secondary control by adding stakes and hubs as well as additional survey control needed for the project. Provide descriptions of secondary control to the Contracting Agency. The description shall include horizontal coordinates, station, offset and elevations of all secondary control points. Provide the Contracting Agency an electronic copy of the secondary control points. Vertical secondary control shall be established using spirit levels, not a GPS system.
2. The Contractor shall stake clearing limits and centerline stationing one week prior to commencement of on-site construction activities. The Contractor shall allow for at least two working days for the Authorized Representative to approve the layout after staking. The Contractor shall assume full responsibility for detailed dimensions, elevations, and excavation slopes measured from these stakes and marks, regardless of Authorized Representative's review and approval.
3. Limit of Work: Limit of Work shall be marked at major angle points and at intermediate points at approximately 40 foot intervals. Staking of limit of work is not required if the limits are defined by existing features (i.e. fence, edge of pavement) shown on the Plans and which will not be removed during construction. The limit of work shall generally be located 5 feet beyond the toe of the fill and 10 feet beyond the top of the cut unless otherwise shown on the Plans.
4. Monuments: The Contractor shall establish the location of monuments shown on the Plans. The Contractor shall be responsible for locating and preserving existing monuments within the right-of-way, which shall include existing property corners on the right-of-way lines. The Contractor shall maintain a complete and accurate reference of all survey markers, monuments, property corners, on this project. The Contractor shall inform the Authorized Representative when

monuments are discovered that were not identified in the Plans. All monuments shall be protected throughout the length of the project or be replaced at the Contractor's expense, unless marked on the Plans as to be removed and reset. In the event the Contractor disturbs or destroys any survey marker during the course of construction, not indicated to be removed/replaced on the Plans, the Contractor shall bear all costs of survey, resetting, legal claims, and filing state forms.

For monuments shown to be removed or destroyed on the Plans, the Contractor's PLS shall file all required permit forms with the Department of Natural Resources (DNR), as required by RCW 58.09.130 and WAC 332-120. The form "Application for Permit to Remove or Destroy a Survey Monument" shall be signed by the PLS, and submitted directly to DNR and the Contracting Agency, within one week of Notice to Proceed. No work affecting monumentation shall commence until DNR has approved the permit. The form "Completion Report for Monument Removal or Destruction" shall be signed by the PLS and submitted to DNR and the Contracting Agency upon completion of work affecting monuments.

The Contractor shall set the monument case and anchor pipe in accordance with Section 8-13.

5. For all other types of construction included in the Contract (including but not limited to fences, signing and landscaping), provide staking and layout as required to adequately locate, construct, and check the specific construction activity.

6. Determine and record the horizontal coordinates and top and bottom elevations of utilities encountered during excavations or potholing. Locate all surface utilities in the roadway prism prior to fill or any paving.

The Contractor shall establish all surveyed points by placing hubs and tacks with marked stakes in unpaved areas or P.K. nails with painted markings in paved areas. All surveying stakes shall be marked in accordance with WSDOT Standard Plan A-10.10-00.

The Contractor shall ensure a surveying accuracy within the following tolerances:

	Vertical	**Horizontal**
Slope Stakes	±0.1 foot	±0.10 foot
Subgrade Grade Stakes Set 0.04 foot Below Grade	±0.01 foot	±0.5 foot (parallel to alignment) ±0.1 foot (normal to alignment)
Surfacing Grade Stakes	±0.01 foot	±0.1 foot (parallel to alignment) ±0.1 foot (normal to alignment)

	Vertical	Horizontal
Roadway Paving Pins for Surfacing or Paving	±0.01 foot	±0.1 foot (parallel to alignment) ±0.05 foot (normal to alignment)

The Contracting Agency may spot-check the Contractor's surveying. These spot-checks shall not change the requirements for accuracy by the Contractor. If errors are found, or the Authorized Representative determines that the survey Work is insufficient for the project, the Contractor shall correct the errors and/or resolve insufficiencies, which may include removal and replacement of incorrectly installed improvements. All costs incurred to correct or complete the Work shall be at the Contractor's expense, in accordance with Section 1-05.7.

Payment

Payment will be made in accordance with Section 1-04.1 for the following bid item, when included in the proposal:

Surveying Lump Sum

The lump sum contract price for "Surveying" shall be full pay for all labor, equipment, materials, and supervision utilized to perform the Work specified, including any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts as described above, as shown on the Plans, and herein specified, including resetting markers and/or monuments purposely moved as part of the Work.

1-05.7 Removal of Defective and Unauthorized Work

(October 1, 2005 APWA GSP)

SUPPLEMENT THIS SECTION WITH THE FOLLOWING:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Authorized Representative, or fails to perform any part of the work required by the Contract Documents, the Authorized Representative may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Authorized Representative determines to be an emergency situation, the Authorized Representative may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency

situation is any situation when, in the opinion of the Authorized Representative, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Authorized Representative from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.

No adjustment in contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency's rights provided by this Section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the work as required.

1-05.11 Final Inspection

DELETE THIS SECTION AND REPLACE IT WITH THE FOLLOWING:

1-05.11 Final Inspections and Operational Testing
(October 1, 2005 APWA GSP)

1-05.11(1) Substantial Completion Date

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

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

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

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

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

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

If action to correct the listed deficiencies is not initiated within 7 days after receipt of the written notice listing the deficiencies, the Authorized Representative may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies pursuant to Section 1-05.7.
The Contractor will not be allowed an extension of contract time because of a delay in the performance of the work attributable to the exercise of the Authorized Representative's right hereunder.

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

1-05.15 Method of Serving Notices
(March 25, 2009 APWA GSP)
REVISE THE SECOND PARAGRAPH TO READ:

ALL CORRESPONDENCE FROM THE CONTRACTOR SHALL BE DIRECTED TO THE AUTHORIZED REPRESENTATIVE. ALL CORRESPONDENCE FROM THE

CONTRACTOR CONSTITUTING ANY NOTIFICATION, NOTICE OF PROTEST, NOTICE OF DISPUTE, OR OTHER CORRESPONDENCE CONSTITUTING NOTIFICATION REQUIRED TO BE FURNISHED UNDER THE CONTRACT, MUST BE IN PAPER FORMAT, HAND DELIVERED OR SENT VIA MAIL DELIVERY SERVICE TO THE AUTHORIZED REPRESENTATIVE'S OFFICE. ELECTRONIC COPIES SUCH AS E-MAILS OR ELECTRONICALLY DELIVERED COPIES OF CORRESPONDENCE WILL NOT CONSTITUTE SUCH NOTICE AND WILL NOT COMPLY WITH THE REQUIREMENTS OF THE CONTRACT.

1-05.16 Water and Power
(October 1, 2005 APWA GSP)

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

1-05.17 Oral Agreements
(October 1, 2005 AWPA GSP)

No oral agreement or conversation with any officer, agent, or employee of the Contracting Agency, either before or after execution of the contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the contract. Such oral agreement or conversation shall be considered as unofficial information and in no way binding upon the Contracting Agency, unless subsequently put in writing and signed by the Contracting Agency.

1-07.1 Laws to be Observed
(October 1, 2005 APWA GSP)

SUPPLEMENT THIS SECTION WITH THE FOLLOWING:

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

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

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

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

1-07.18 Public Liability and Property Damage Insurance

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

1-07.18 Insurance
(January 24, 2011 APWA GSP)

1-07.18(1) General Requirements

A. The Contractor shall obtain the insurance described in this section from insurers approved by the State Insurance Commissioner pursuant to RCW Title 48. The insurance must be provided by an insurer with a rating of A-: VII or higher in the A.M. Best's Key Rating Guide, which is licensed to do business in the state of Washington (or issued as a surplus line by a Washington Surplus lines broker). The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer (including financial condition), terms and coverage, the Certificate of Insurance, and/or endorsements.

B. The Contractor shall keep this insurance in force during the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated (see C. below).

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

D. The insurance policies shall contain a "cross liability" provision.

E. The Contractor's and all Subcontractors' insurance coverage shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or insurance pool coverage.

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

G. Upon request, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s).

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

I. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.

J. 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.

1-07.18(2) Additional Insured

All insurance policies, with the exception of Professional Liability and Workers Compensation, shall name the following listed entities as additional insured(s):
the Contracting Agency and its officers, elected officials, employees, agents, and volunteers.
The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, whether primary, excess, contingent or otherwise, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(3) describes limits lower than those maintained by the Contractor.

1-07.18(3) Subcontractors

Contractor shall ensure that each subcontractor of every tier obtains and maintains at a minimum the insurance coverages listed in 1-07.18(5)A and 1-07.18(5)B. Upon request of the Contracting Agency, the Contractor shall provide evidence of such insurance.

1-07.18(4) Evidence of Insurance

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein

when the Contractor delivers the signed Contract for the work. The certificate and endorsements must conform to the following requirements:

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

1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve the Contractor from liability in excess of such limits. All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible shall be the responsibility of the Contractor.

1-07.18(5)A Commercial General Liability

A policy of Commercial General Liability Insurance, including:

Per project aggregate
Premises/Operations Liability
Products/Completed Operations – for a period of one year following final acceptance of the work.
Personal/Advertising Injury
Contractual Liability
Independent Contractors Liability
Stop Gap / Employers' Liability

No explosion, collapse, or underground property damage, or ground disturbing activity is expected as part of this contract.

Such policy must provide the following minimum limits:
$2,000,000 Each Occurrence
$2,000,000 General Aggregate
$2,000,000 Products & Completed Operations Aggregate
$2,000,000 Personal & Advertising Injury, each offence

Stop Gap / Employers' Liability
$1,000,000 Each Accident
$1,000,000 Disease - Policy Limit
$1,000,000 Disease - Each Employee

1-07.18(5)B Automobile Liability
Automobile Liability for owned, non-owned, hired, and leased vehicles, with an MCS 90 endorsement and a CA 9948 endorsement attached if "pollutants" are to be transported. Such policy(ies) must provide the following minimum limit:
$1,000,000 combined single limit

1-07.18(5)C Workers' Compensation
The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the state of Washington.

1-08 Prosecution and Progress

Add the following new section:

1-08.0 Preliminary Matters
(May 25, 2006 APWA GSP)

Add the following new section:

1-08.0(1) Preconstruction Conference
(October 10, 2008 APWA GSP)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Authorized Representative and such other interested parties as may be invited. The purpose of the preconstruction conference will be:
1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To establish normal working hours for the work;
5. To review safety standards and traffic control; and
6. To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:
1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

ADD THE FOLLOWING NEW SECTION:

1-08.0(2) Hours of Work
(June 27, 2011 APWA GSP)

Except in the case of emergency or unless otherwise approved by the Contracting Agency, the normal straight time working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour lunch break and a 5-day work week. The normal straight time 8-hour working period for the Contract shall be established at the preconstruction conference or prior to the Contractor commencing the work.

Written permission from the Authorized Representative is required, if a Contractor desires to perform work on holidays, Saturdays, or Sundays; before 7:00 a.m. or after 6:00 p.m. on any day; or longer than an 8-hour period on any day. The Contractor shall apply in writing to the Authorized Representative for such permission, no later than noon on the working day prior to the day for which the Contractor is requesting permission to work.

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

Permission to work Saturdays, Sundays, holidays, or other than the agreed upon normal straight time working hours Monday through Friday may be given subject to certain other conditions set forth by the Contracting Agency or Authorized Representative. These conditions may include but are not limited to:
The Authorized Representative may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Authorized Representative include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees when in the opinion of the Authorized Representative, such work necessitates their presence.
On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency representatives who worked during such times.
Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.
Considering multiple work shifts as multiple working days with respect to contract time, even though the multiple shifts occur in a single 24-hour period.

1-08.4 Prosecution of Work

DELETE THIS SECTION IN ITS ENTIRETY, AND REPLACE IT WITH THE FOLLOWING:

1-08.4 Notice to Proceed and Prosecution of Work
(June 27, 2011 APWA GSP)

Notice to Proceed will be given after the Contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Authorized Representative. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the Contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the Contract.

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

1-08.5 Time for Completion
(June 28, 2007 APWA GSP, Option A)

REVISE THE THIRD AND FOURTH PARAGRAPHS TO READ:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Authorized Representative will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The statement will also show the nonworking days and any partial or whole day the Authorized Representative declares as unworkable. Within 10 calendar days after the date of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To be considered by the Authorized Representative, the protest shall be in sufficient detail to enable the Authorized Representative to ascertain the basis and amount of time disputed. By not filing such detailed protest in that period, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor elects to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a

working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

REVISE THE SIXTH PARAGRAPH TO READ:

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

1. The physical work on the project must be complete; and
2. The Contractor must furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Authorized Representative prior to establishing a completion date:
    a. Certified Payrolls (Federal-aid Projects)
    b. Material Acceptance Certification Documents
    c. Annual Report of Amounts Paid as MBE/WBE Participants or Quarterly Report of Amounts Credited as DBE Participation, as required by the Contract Provisions.
    d. Final Contract Voucher Certification
    e. Property owner releases per Section 1-07.24

1-08.9 Liquidated Damages
(March 13, 2012 APWA GSP)

Revise the fourth paragraph to read:

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

1-09.13(3)A Administration of Arbitration
(October 1, 2005 APWA GSP)

REVISE THE THIRD PARAGRAPH TO READ:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters are located. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the contract as a basis for decisions.

END OF SECTION

SECTION 01 20 00

PROJECT MEETINGS

PART 1 - GENERAL

1.01 PRE-BID SITE MEETING

A. Scheduling of meeting: If a pre- bid site meeting is to be held, the date, time, and location will be shown in the advertisement for bid and in the pre-bid information Section 00 01 00.

B. Possible Attendees: The Engineer, the Consultant, the Contractor, Subcontractors, and Suppliers. If the pre-bid site meeting is mandatory, a representative for all bidding contractors must be present. The Consultant shall be responsible for developing an attendee's list. If the pre-bid conference is mandatory the Consultant shall provide the Engineer with an official copy which will be used in verifying and recommending contract award to eligible bidders.

C. Submittals: None at this time

D. Agenda: The following topics shall be reviewed by either the Engineer and/or Consultant:

1. The Engineer: Introduction, general scope, budget, schedule, special permits, requirements, special conditions and/or requirements.

2. Tour of the Work Site: If feasible, with additional comments from the Engineer and/or the Consultant

1.02 PRE-CONSTRUCTION

A. The Engineer will establish the date, time and place for the pre-construction conference. The Engineer will conduct the meeting to review responsibilities, procedures, personnel assignments and to exchange preliminary submittals. The Consultant shall be responsible for taking and preparing minutes using a format to be provided by the Engineer. Copies of the minutes will be distributed by the Consultant at the first progress meeting.

B. Attendees: The Engineer, the Consultants, the Contractor and his/her superintendent, major subcontractors, manufacturers, suppliers and other concerned parties.

C. Submittals: The Contractor shall provide a preliminary construction schedule; traffic control plan; list of subcontractors; list of material suppliers, preliminary data submittals, and submittals/shop drawings for long lead material items identified in the project manual.

D. Agenda: The following items shall be reviewed at the meeting using a format provided by the Engineer.

1. Lines and methods of communication between the Engineer, Consultant and Contractor.

2. Contract Compliance.

3. Coordination of Project.

    a. Engineer’s inspections.

    b. Construction Inspection Plan.

    c. Special inspections/testing.

    d. Working hours.

    e. Date, time and location for weekly construction meetings.

    f. Safety.

    g. Traffic control.

    h. Verification of schedule compliance and remaining construction days.

4. Engineer-provided control surveys.

5. Submittals to be provided by Contractor at meeting.

    a. Identification of Contractor's Personnel: Project Manager, Superintendent, other key personnel.

    b. Subcontractor Applications.

    c. Critical Path Schedule (preliminary).

    d. List of required submittals/ Shop Drawings from Project Manual.

    e. Subcontractor's List.

    f. Material Suppliers.

    g. Prevailing Wage Reports.

6. Procedures and sample pay request forms with prevailing wage certification.

7. Procedures and examples of Design Clarification, Field Directives, Modification Proposals (MP), and Change Orders.

8. Procedures for submitting submittals/shop drawings and requesting substitutions.

9. Responsibility of contractor to maintain record documents.

10. Emergency Telephone List.

11. Special Items:

    a. MSDS Data.

    b. Work Limits/Security and safety-first aid procedures and confined spaces procedure.

    c. Adjoining Work (if any) in progress.

    d. Permits.

    e. Staging, deliveries, and contractor/employee parking.

12. Verification of Drawings and Project Manual by Contractor.

13. Notice to Proceed date.

14. Other.

1.03 PROGRESS MEETINGS

A. The Engineer will conduct the weekly progress meetings on a day, time and location determined at the pre-construction conference. The Consultant shall be responsible for taking and preparing weekly project minutes using a format provided by the Engineer. Copies of the minutes shall be distributed to attendees at least four calendar days prior to the next meeting. A copy of the minutes shall be provided to the Engineer.

B. Attendees: Engineer, Consultant, Contractor, Facility Operator, and other concerned parties such as contractor's superintendent, subcontractors, and material suppliers.

C. Agenda: The following items will be reviewed and discussed at each progress meeting using a format provided by the Engineer:

1. Review and approve minutes of the previous meeting.

2. Review status, progress, issues related to compliance with construction schedule and identify construction days used and days remaining under the Contract and any request for time extensions. Determine if schedule needs to be updated to reflect any changes. Develop and maintain a work item schedule status report using a format provided by the Engineer.

3. Review status/issues/problems of work in progress with needed action items.

4. Review new work that has started prior to the last meeting and/or will be

started before the next meeting and identify any issues, concerns, or problems requiring action.

5. Establish and maintain a submittal/shop drawing log showing status for all items identified in the project manual using a format provided by the Engineer.

6. Review status of long-lead time items that may require expedited review.

7. Establish and maintain log and status of Design Clarifications, Field Directives, MP, and Change Orders using a format provided by the Engineer. Review status of pending actions, degree of completion, and the need for processing change orders.

8. Review status of special testing if required and implementation of inspection schedule.

   Review changes to record documents.

9. Review status of work in progress and pending pay requests.

10. Review other issues affecting implementation of project.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 30 00

SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION

A. This Section includes administrative and procedural requirements for submittal of Shop Drawings, Product Data, Samples, the Submittal Schedule, and other miscellaneous administrative and quality control submittals.

1.02 RELATED SECTIONS:

A. The following Sections contain requirements that relate to this Section:

1. Section 01 30 00 – Submittals
2. Section 01 40 00 – Quality Control
3. Section 01 81 13 – LEED Requirements

1.03 SUMMARY:

A. submittal Schedule: The Submittal Schedule shall document the Contractor's planning for the timely execution of the Work, in accordance with the Construction Contract and submittal requirements set forth in this Section.

B. Shop Drawings include, but are not limited to, the following: (Note: standard information prepared without specific reference to the Project is not Shop Drawings).

1. Fabrication drawings
2. Installation drawings
3. Setting diagrams
4. Shopwork manufacturing instructions
5. Templates and patterns
6. Schedules

C. Product Data include, but are not limited to, the following:

1. Manufacturer's product data
2. Manufacturer's installation instructions

3. Standard color charts

4. Catalogue cuts

5. Roughing-in diagrams and templates

6. Standard wiring diagrams

7. Printed performance curves

8. Operational range diagrams

9. Mill reports

10. Standard product operating and maintenance manuals

D. Samples include, but are not limited to, the following:

1. Partial sections of manufactured or fabricated components

2. Small cuts or containers of materials

3. Complete units of repetitively used materials

4. Swatches showing color, texture, and pattern

5. Color range sets

6. Components used for independent inspection and testing

E. Quality control submittals include, but are not limited to, the following:

1. Design data

2. Certifications

3. Manufacturer’s instructions

4. Manufacturer’s field reports

F. Administrative submittals: Refer to other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:

1. Permits

2. Applications for Payment

3. Performance and payment bonds

4. Insurance certificates

5. Listing of subcontractors

1.04 DEFINITIONS:

A. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.

B. Mock-ups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

1.05 SUBMITTAL SCHEDULE:

A. Prepare a complete schedule of submittals. Submit the schedule at the Pre-Construction meeting for Engineer's and Consultant's review.

1. Coordinate the Schedule of Values, the list of subcontractors and the list of material suppliers into the Submittal Schedule, then incorporate them into the Contractor's Construction Schedule.

B. Prepare the schedule in chronological order. Provide the following information:

1. Schedule date for the first submittal

2. Related Section number

3. Submittal category (Shop Drawings, Product Data, etc.)

4. Name of the subcontractor

5. Description of the part of the Work covered

6. Scheduled date for resubmittal

7. Scheduled date for the Consultant's final release or approval

C. Distribution: Following the Consultant's response to the initial submittal schedule, print and distribute copies to the Consultant, Engineer, subcontractors, and other parties required to comply with submittal dates indicated. When revisions are made, distribute to the same parties. Delete parties from distribution when they have completed their assigned part of the Work and are no longer involved in construction activities.

D. Schedule Updating: Revise the schedule after each meeting or other activity where revisions have been recognized or made. Issue the updated schedule prior to the next regular project meeting.

1.06 SUBMITTAL PROCEDURES:

A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal to the Consultant

sufficiently in advance of schedule performance of related construction activities to avoid delay.

1. Coordinate each submittal with other submittals and related activities that require sequential activity including:

    a. Testing

    b. Purchasing

    c. Fabrication

    d. Delivery

    e. Other submittals and related activities that require sequential activity.

2. Coordinate transmittal of different types of submittals for the same element of the Work and different elements of related parts of the Work to avoid delay in processing because of the Consultant's need to review submittals concurrently for coordination.

    a. The Consultant reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

3. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for Contractor's review prior to submittal to the Consultant, and for Consultant's review of submittal, including time for re-submittals.

    a. Allow ten (10) working days for the Consultant's initial review of each submittal, plus five (5) working days if the Engineer's review is required. Allow additional time if the Consultant must delay processing to permit coordination with subsequent submittals. The Consultant will advise the Contractor when a submittal being processed must be delayed for coordination.

    b. Where necessary to provide an intermediate submittal, process the intermediate submittal in the same manner as the initial submittal.

    c. Allow five (5) additional working days for reprocessing each submittal.

    d. No extension of contract time will be authorized because of the Contractor's failure to transmit submittals to the Consultant sufficiently in advance of the Work to permit processing.

B. Submittal Preparation: Place a permanent label or title block on each submittal for identification:

1. Indicate name of the firm or entity that prepared each submittal on the label or title block.

2. Provide a space approximately 4 by 5 inches (100 x 125 mm) on the label or beside the title block to record the Contractor's review and approval markings and the action taken by the Consultant.

3. Include the following information on the label for processing and recording action taken:

   a. Project name

   b. Date

   c. Name and address of the Consultant

   d. Name and address of the Contractor

   e. Name and address of the subcontractor

   f. Name and address of the supplier

   g. Name of the manufacturer

   h. Number and title of appropriate Specification Section

   i. Drawing number and detail references, as appropriate

   j. Similar definitive information as necessary

C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Consultant and to other destinations by use of a transmittal form. The Consultant will return submittals received from sources other than the Contractor.

1. Record relevant information and requests for data on the transmittal form. On the form, or an attached separate sheet, record deviations from the requirements of the Contract Documents, including minor variations and limitations.

2. Include the Contractor's certification stating that information submitted complies with requirements of the Contract Documents.

D. Placement of Orders for Materials & Components: Do not place orders for materials or components before receipt of reviewed and accepted submittal for same from Consultant.

1.07 SHOP DRAWINGS:

A. Submit newly prepared information, drawn accurately to scale. Do not reproduce Contract Documents or copy standard printed information as the basis of Shop

Drawings.

1. Include the following information on Shop Drawings:

    a. Identification of products and materials included

    b. Compliance with specified standards

    c. Notation of coordination requirements

    d. Notation of dimensions established by field measurement taken by the Contractor

    e. Correlation of Shop Drawings to Contract Documents by reference to sheet number, details, schedule or room number.

2. Specifically note and bring to the Consultant's attention any deviations from the Contract Documents on the Shop Drawings.

3. Do not allow Shop Drawing copies that do not contain an appropriate final stamp or other marking indicating the action taken by the Consultant to be used in construction. The Contractor shall replace improvements installed by the Contractor prior to obtaining approval by the submittal process, if Engineer so requests, at no additional cost to the Engineer.

4. Sheet Size: Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 42 inches (750 by 1050 mm).

5. Initial Submittal: Submit up to 5 black-line prints or bond copies for the Consultant's review. The Consultant will return one marked up copy after review. If the Contractor desires more than one copy back, submit additional copies at initial submittal.

6. Final Submittal: Submit up to 5 black-line prints or bond copies for the Consultant's review. If approved, one copy will be returned to the contractor. If the Contractor desires more than one copy back, submit additional copies at final submittal.

1.08 PRODUCT DATA:

A. Collect Product Data into a single submittal for each element of construction or system. Mark each copy to show which choices and options are applicable to the project.

1. Where Product Data includes information on several similar products, some of which are not required for use on the Project, mark copies clearly to indicate which products are applicable.

2. Where Product Data must be specially prepared for required products, materials, or systems because standard printed data are not suitable for

use, submit as Shop Drawings, not Product Data.

3. Include the following information in Product Data:

   a. Manufacturer's printed recommendations

   b. Compliance with recognized trade association standards

   c. Compliance with recognized testing agency standards

   d. Application of testing agency labels and seals

   e. Notation of dimensions verified by field measurement

   f. Notation of coordination requirements

4. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed. Include a signed certificate of compliance with each Product Data submittal.

B. Submittals: Submit up to 5 copies of each required Product Data submittal. One copy will be returned to the Contractor. If the Contractor desires more than one copy back, submit additional copies. Unless the Consultant or Engineer observes noncompliance with provisions of the Contract Documents, the submittal may serve as the final submittal.

C. Distribution: Furnish copies of final Product Data submittal to the manufacturers, subcontractors, suppliers, fabricators, installers, governing authorities and others as required for performance of the construction activities. Show distribution on transmittal forms.

1. Do not proceed with installation of materials, products, and systems until a copy of reviewed and accepted Product Data applicable to the installation is in the Installer's possession.

2. Do not permit use of unmarked copies of Product Data in connection with construction.

1.09 SAMPLES:

A. Submit full-size, fully fabricated Samples, cured and finished in the manner specified, and physically identical with the material or product proposed for use.

1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the Consultant's sample where so indicated. Include the following information:

   a. Generic description of the Sample

   b. Size limitations

c. Sample source

d. Product name or name of manufacturer

e. Compliance with recognized standards

f. Compliance with governing regulations

g. Availability

h. Delivery time

2. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented by a Sample, submit at least 3 multiple units that show approximate limits of the variations.

b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, and details of assembly, connections, operation, and similar construction characteristics.

c. Samples not incorporated into the Work, or otherwise designated as the Engineer's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.

B. Preliminary Submittals: Where Samples are specified for selection of color, pattern, texture, or similar characteristics from a manufacturer's range of standard choices, submit a single, full set of available choices for the material or product.

1. Preliminary submittals will be reviewed and returned with the Consultant's marking indicating selection and other action taken.

C. Submittals: Except for Samples intended to illustrate assembly details, workmanship, fabrication techniques, connections, operation, and other characteristics, submit 3 sets of Samples. The Consultant will return one set to the Contractor marked with the action taken, retain one set, and transmit one set to the Engineer.

1. Maintain sets of Samples, as returned by the Consultant, at the project site, available for quality-control comparisons throughout the course of construction activity.

2. Unless the Consultant or Engineer observes noncompliance with the provisions of the Contract Documents, the submittal may serve as the final submittal.

3. Sample sets may be used to obtain final acceptance of the construction associated with each set.

D. Distribution of Samples: Distribute additional sets of Samples to the subcontractors, suppliers, fabricators, manufacturers, installers, governing authorities, and others as required for performance of the Work. Show distribution on transmittal forms.

E. Field Samples specified in individual Specification Sections are special types of Samples. Comply with Sample submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.10 QUALITY ASSURANCE SUBMITTALS:

A. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.

B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with the specified requirements.

1. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.

C. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Section 01 45 00 - Quality Control.

1.11 CONSULTANT'S ACTION:

A. Except for submittals for the record or for information, where action and return of submittals is required, the Consultant or their respective sub-consultant will review each submittal, mark to indicate the action taken, and return to the Contractor within ten (10) working days of receipt of the submittal.

1. Compliance with specified characteristics is the Contractor's responsibility and not considered part of the Consultant's review and indication of action taken.

2. If the submittal involves either changes to the drawings and/or project manual or contains information not reviewed and approved as part of the project drawings and/or project manual by the Engineer, the Engineer shall also review and approve the submittal. An additional five (5) working days shall be required for the Engineer's review.

B. Action Stamp: The Consultant will stamp each submittal with a uniform action stamp. The Consultant will mark the stamp appropriately to indicate the action taken, as follows:

1. Final Unrestricted Release: Where submittals are marked “No Exceptions Taken,” the Work covered by the submittal may proceed, provided it complies with the requirements of the Contract Documents. Final acceptance will depend on that compliance.

2. Final-but-Restricted Release: Where submittals are marked “Make Corrections Noted,” the Work covered by the submittal may proceed provided it complies with both the Consultant’s notations and corrections on the submittal and requirements of the Contract Documents. Final acceptance will depend on that compliance.

3. Returned for Resubmittal: When submittal is marked “Revise and Resubmit,” do not proceed with the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the Consultant’s notations. Resubmit without delay. Repeat if necessary to obtain an action mark that will allow the Work to Proceed.

    a. Do not permit submittals marked “Revise and Resubmit” or “Rejected” to be used at the project site or elsewhere where construction is in progress.

4. Other Actions: Where a submittal is primarily for informational or record purposes or for special processing or other activity, the submittal will be returned, marked “Action Not Required,” or “Not Reviewed.”

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01 40 00

QUALITY CONTROL

PART 1 - GENERAL

1.01 SUMMARY OF WORK

A. All workmanship and materials shall be subjected to inspection by the Engineer, who may select samples of materials in such number and quantities as he/she may deem necessary to determine their conformance with the specifications and project intent.

B. All rejected materials and work shall be promptly removed by the Contractor from the premises and adjacent surroundings.

C. All rejected work or materials shall be promptly replaced to the satisfaction of the Engineer.

D. The Engineer reserves the right to inspect any component of the work at any time. The items of work are being reviewed for conformance with the design intent as well as workmanship and quality of materials. The Contractor shall cooperate with the Engineer's inspections. When identified in Technical Specifications, notification shall be provided to the Engineer 48 hours in advance of the time the inspections are needed.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

3.01 INSPECTION AND TESTING

A. The Contractor shall furnish samples of materials for testing, if requested by the Engineer, at no additional cost. Tests by the Engineer will be made in accordance with commonly recognized standards of national materials testing organizations and any such other special methods as deemed necessary.

B. Any and all materials necessary for the construction of any part of the work and associated improvements not specified shall be of the best available quality acceptable to the Engineer.

3.02 SAMPLES

A. The Contractor shall prepare and submit such samples as are required elsewhere in these specifications at such time as is necessary to allow sufficient time for retesting or modification of the work, at the Engineers discretion, based on evaluation of the samples.

3.03 FINAL INSPECTION

A. Final inspection shall take place after all requirements for Substantial Completion have been completed, including all punch list items outlined in other Sections of these specifications. Final inspection of the work by the Engineer will be made no later than five (5) Working Days after receipt of Contractor's written request for final inspection.

B. Before Final Payment will be made, defects or omissions noted on the final inspection must be corrected by the Contractor without additional cost to the Owner. See Section 01 77 19 - Contract Closeout.

END OF SECTION

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 NOT USED

1.03 SUMMARY

A. Section includes.

1. C&D Material Management Plan and Deconstruction & Salvage Assessment

2. Salvaging nonhazardous demolition and construction materials

3. Recycling nonhazardous demolition and construction materials

4. Disposing of nonhazardous demolition and construction waste

5. Reporting forms and requirements for tracking C&D Material diversion and disposal

1.04 RELATED SECTIONS

A. SECTION 02 41 19 – SITE UTILITY REMOVAL

B. SECTION 02 42 93 – BUILDING DECONSTRUCTION

C. SECTION 02 82 00 – ASBESTOS ABATEMENT

D. SECTION 02 84 16 – UNIVERSAL & OTHER REGULATED WASTE

1.05 DEFINITIONS

A. C&D Material Diversion Report: Report documenting execution and status of C&D material included in the waste management report.

B. C&D Materials Management Plan: Project specific plan for the collection/handling, disposition (recycle, reuse, salvage, disposal), transportation and tracking of C&D material.

C. Construction and Demolition Materials: Includes all non-hazardous solid materials resulting from construction, renovation, alterations, repair and demolition. Includes material that is recycled, reused, salvaged, or disposed of as garbage.

D. Construction Material: Building and site improvement materials and waste resulting from construction, remodeling, renovation, or repair operations. Construction materials includes packaging.

E. Construction or Demolition Waste: Building materials with no recoverable value resulting from construction, remodeling, renovation, or repair operations. These materials are to be disposed of in a landfill.

F. Deconstruction and Salvage Assessment: A project specific evaluation of the materials to be removed during a full or partial building removal.

G. Demolition Debris: Building removal materials and waste resulting from demolition or selective demolition operations.

H. Disposal: Removal off-site of demolition and construction waste for deposit in a landfill acceptable to authorities having jurisdiction.

I. Diversion: Consisting of reuse, recycling and salvage of C&D Materials.

J. Mixed Construction and Demolition (C&D) Recycling: The process of collecting mixed recyclable materials in one container on-site. The container is taken to a C&D processing facility where materials are separated for recycling. Containers with mixed C&D recycling may not include items for which current recycling markets do not exist. Non-recyclable materials must be placed into a separate waste container and disposed of as garbage.

K. Qualified Facilities: Mixed C&D Material processing facilities certified as required.

L. Recycle: Process of sorting, cleaning, treating and reconstituting materials for re-purposed use or for use in the manufacture of a new product.

M. Reuse: Making use of a material without altering its form. Materials can be used on-site or reused on other projects off-site.

N. Salvage: Recovery of materials for on-site reuse, off-site sale or donation to a third party.

O. Source-Separated C&D Recycle: Process of separating recyclable materials in separate containers as they are generated on the job-site. The separated materials are hauled directly to an approved recycling facility providing recycling services for 100% diversion.

1.06 PERFORMANCE REQUIREMENTS

A. General: C&D Debris shall be diverted from the landfill whenever practicable in accordance with the county's "Zero Waste by 2030" policy.

B. Disposal shall comply with King County Ordinance 17709 which provides in part that diversion rates for demolition and construction debris achieve a minimum of 80%.

C. All generators, handlers and collectors of mixed and nonrecyclable C&D Waste generated within the jurisdiction of King County shall deliver or ensure delivery to a designated C&D receiving facility. Mixed C&D materials and non-recyclable C&D waste generated in King County (outside of the cities of Seattle and Milton) must be sent to designated C&D material recovery facilities or transfer stations.

1. Beginning Jan. 1, 2016, mixed construction and demolition (C&D) materials and C&D waste from jobsites located in King County (outside of Seattle) must be sent to the facilities listed on the King County website at https://kingcounty.gov/depts/dnrp/solid- waste/programs/green-building/construction-demolition/designated-facilities.aspx

D. Washington State regulations (WAC 173-345-040) require a separate collection container be provided for waste at jobsites that conduct recycling. Disposal shall comply with King County Ordinance 18166 using facilities that comply with Solid Waste Division Construction and Demolition Material Rule.

1. An updated list of facilities for King County is available at: https://kingcounty.gov/depts/dnrp/solid-waste/programs/green-building/construction- demolition/designated-facilities.aspx.

E. The following C&D Waste disposal bans apply to generators, handlers, collectors, and privately- and publicly-owned facilities designated by King County to manage C&D Waste, as authorized under King County Code Title 10:

1. As of January 1, 2016, the following materials are banned from disposal:

a. Concrete, asphalt paving and bricks, unpainted, without a hazardous constituent, and not attached to other materials.

b. Metal, ferrous and nonferrous – includes composite, multi-metal products or products with nonmetal contaminants but metal content must be more than 90 percent by weight of the material.

c. Cardboard – includes with tape, staples, and other fasteners and is dry and free of contamination such as paint, grease, grime or dirt.

d. Unpainted new construction gypsum scrap that is dry and does not have adhering spackling compound or excessive water damage that would prevent recycling.

e. Unpainted/untreated wood – excludes particle board and laminated veneer wood.

2. Exceptions:

a. Bans do not apply where C&D Wastes are painted, have hazardous or asbestos containing constituents, are glued, nailed or otherwise connected to other material types, are present only in very small quantities, or are generated during disaster emergency situations where disaster debris needs to be removed quickly and recycling options are not available.

b. Waste residual from designated C&D Material Recovery Facilities (MRFs) may contain up to 10 percent by total combined weight of the materials listed above, based on the sampling methodology specified in the King County C&D MRF Waste Residual Sampling Protocol.

3. In addition to the C&D materials banned from disposal by King County the following materials often have viable recycling markets and should be diverted for recycling whenever possible.

a. Carpet

b. Carpet pad

c. Window glass

d. Field office material, including office paper, aluminum cans, glass, plastic, batteries.

4. Diversion Rates

a. This project much achieve 80% diversion rates.

1.07 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with hauling, diversion, and disposal regulations of authorities having jurisdiction.

B. Preconstruction Conference: A portion of the Preconstruction Conference shall be dedicated to discussing C&D debris management, including:

1. Review methods and procedures related to C&D materials management, including the requirements of each trade.

2. Review and discuss C&D materials management plan including responsibilities of each subcontractor.

3. Review C&D debris diversion goal(s) and reporting requirements.

4. Review and finalize procedures for materials separation into container(s) for mixed recycling, source separated container(s) if applicable and disposal/trash container.

5. Review container labeling. Verify availability of containers needed to avoid delays.

6. Review plan to maintain proper container signage through to the completion of the project

7. Review procedures for periodic container collection and transportation to diversion and disposal facilities.

C. Weekly Review: Discuss C&D debris management at least weekly during standard safety/coordination meetings.

1. Possible Topics

a. Discuss highlights and shortcomings of the previous week's diversion program

b. Overall project diversion rate in comparison to goals

c. Upcoming C&D issues on site

1) Moving/Locations of containers

2) Source separated bins on site for specific scopes/contractors

D. Orientations: Include C&D debris management in subcontractor site orientations.

1.08 SUBMITTALS

A. Submit the following according to SECTION 01 33 00.

1. C&D Materials Management Plan: Submit plan prior to Preconstruction Conference.

2. Deconstruction and Salvage Assessment

3. C&D Materials Diversion Report(s): Submit completed waste report form prior to or as part of Substantial Completion. Sample report form is included at the end of this Section. Online reporting is also acceptable, as approved by the Project Representative.

1.09 CONSTRUCTION AND DEMOLITION MATERIALS MANAGEMENT PLAN

A. Material Identification: Indicate anticipated types and quantities of demolition and construction material generated by the Work.

B. C&D Material Reduction Work Plan: List each type of C&D material and whether it will be salvaged, recycled, or disposed of in landfill. Include total quantity of each type of debris, quantity for each means of recovery, and handling and transportation procedures.

C. Salvaged Materials

1. Reuse: For materials that will be salvaged and reused by the city, describe methods for preparing and storing salvaged materials before incorporation into the Work.

2. For Sale: For materials that will be sold to individuals and organizations, include a brief description of how the materials will be marketed for sale. Include list of their names, addresses, and telephone numbers.

3. Donation: For materials that will be donated to individuals and organizations, include names of recipient (if known).

D. Recycled Materials: Include list of local receivers and processors likely to be used and type of recycled materials each will accept. Include names, addresses, and telephone numbers.

E. Disposed Materials: Indicate how and where waste will be disposed of. Include name, address, and telephone number of each transfer station that is intended to be used. Include also the landfill(s) in which the waste will be disposed.

F. Handling and Transportation Procedures: Include method that will be used for separating recyclable materials from waste including sizes of containers, container labeling, and designated location where materials separation will be performed.

G. General: Develop a C&D Materials Management Plan for this project that:

1. Is consistent with King County Ordinance 17709.

2. LEED Construction Waste Management Plans are not required to be in a specific format. Specific information needs to be included in the Plan. The King County above fulfill the LEED requirements and the C&D Plan can be used for LEED.

H. All non-recyclable C&D materials must be placed in a separate waste container, destined for a landfill. A separate container is required by Washington State Law – WAC 173-345- 040

1.10 DECONSTRUCTION AND SALVAGE ASSESSMENT

A. General: If a salvage assessment has not already been provided, conduct a deconstruction and salvage assessment of the structure and equipment to be removed during the project using the template at the end of this section.

B. The Deconstruction and Salvage Assessment (DSA) must be submitted as part of the C&D Materials Management Plan.

C. A 3rd party verifying agent is required for projects involving whole building removal/interior renovation.

1.11 CONSTRUCTION AND DEMOLITION MATERIAL DIVERSION REPORT

A. The Final Construction Material Management Report shall include the following.

1. For each material recycled, reused, or salvaged from the Project:

2. The total amount of the material, in tons or cubic yards.

3. The receiving party.

4. Net total costs or savings to the Project.

5. Manifests, weight tickets, receipts and invoices.

6. For mixed materials, include the appropriate monthly or quarterly construction and demolition (C&D) diversion/recycling rate of the receiving facility.

7. The total amount (in tons or cubic yards) of material disposed of as waste from the Project, the location of the receiving facility, and the total disposal cost. Include manifests, weight tickets, receipts and invoices.\

a. Disposal Receipts: Copy of receipts issued by a disposal facility for C&D waste that is disposed in a landfill.

b. Recycling Receipts: Copy of receipts issued by approved recycling facilities for mixed materials. Include weight tickets from the recycling hauler or material recovery facility and verification of the recycling rate for mixed loads at the facility.

c. Salvaged Materials Documentation: Types and quantities, by weight, for materials salvaged for reuse on site, sold or donated to a third party.

d. The material used as Alternative Daily Cover (ADC) or Industrial Waste Stabilizer (IWS) do not count as diversion within King County

B. Provide final C&D report and documentation as required.

1. LEED Rating System: Projects using LEED must complete the Credit Form and provide required uploads (CWM Plan, Commingle Facility Diversion Rate Documentation) directly through the project's LEED Online portal.

1.12 RESOURCES

A. King County Solid Waste Division Construction & Demolition Materials Diversion website:http://your.kingcounty.gov/solidwaste/greenbuilding/construction-demolition.asp for general information on King County's construction recycling program, program contact and online resources.

1. Contact the King County Solid Waste Division at (206)477-4466 or swd@kingcounty.gov.

2. Publications may also be found on-line at www.greentools.us.

3. King County's "What Do I Do With . . . ?" on-line database https://info.kingcounty.gov/Services/recycling-garbage/Solid-Waste/what-do-i-do- with/King County GreenTools Construction Recycling Directory http://your.kingcounty.gov/solidwaste/greenbuilding/construction-demolition.asp

4. King County Solid Waste Division List of C&D Recycling Facilities https://kingcounty.gov/depts/dnrp/solid-waste/programs/green-building/construction- demolition/designated-facilities.aspx).

5. Contact Kinley Deller of King County GreenTools at (206) 477-5272

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 PLAN IMPLEMENTATION

A. General: Provide handling instructions, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.

B. Containers for C&D waste to be recycled and/or diverted clearly labeled with a list of acceptable and unacceptable materials

1. The list of acceptable materials must be the same as the materials recycled at the recycling processor or receiving material recovery facility.

2. Container labels, including list of acceptable and unacceptable materials shall be in language(s) and/or pictures understood by all the Contractor's and Subcontractors' workers.

3. Protect and manage containers and their contents in accordance with the requirements of the recycling processor or receiving material recovery facility

C. Engage a waste diversion management coordinator to be responsible for implementing, monitoring, and reporting status of the waste diversion management work plan. The designated coordinator shall be someone who is present at Project site full time for duration of Project.

D. Include a C&D Materials reduction provision in material purchasing agreements for construction materials requesting that to the greatest extent possible materials and equipment be delivered in packaging made of recyclable material, the amount of packaging be reduced and packaging be taken back for reuse or recycling. Require that subcontractors have the same waste reduction provisions in material purchasing agreements.

E. Training: Train employees, subcontractors, and suppliers on proper waste management procedures.

1. Distribute waste diversion plan to all on-site employees, subcontractors and suppliers before starting the work. Review plan procedures and locations established for salvage, recycling, reuse and disposal with new employees.

F. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, and reused.

G. Conduct regular visual inspections of containers, and remove any unacceptable materials.

3.02 SALVAGING DEMOLITION AND CONSTRUCTION MATERIALS

A. Salvaged Items:

1. Clean salvaged items.

a. Pack or crate items after cleaning. Identify contents of containers.

b. Store items in garage which is identified as the staging and storage area in the contract drawings.

c. Protect items from damage during storage.

3.03 RECYCLING DEMOLITION AND CONSTRUCTION MATERIALS

A. Packaging:

1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.

2. Polystyrene Packaging: Separate and bag materials.

3. Pallets: As much as possible, collect pallets for reuse, and require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, recycle with clean wood.

4. Crates: Break down crates and recycle with clean wood.

B. Wood Materials:

1. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.

2. Reusable: Sort and stack materials according to size, type, and length as required for reuse.

3. Non-Reusable:

a. Clean wood shall be recycled.

b. Painted and treated wood should be disposed of as waste.

C. Concrete:

1. Pulverize concrete to maximum size suitable for recycling or reuse applications identified in the C&D Materials Management Plan.

2. Reinforcement may need to be removed and recycled with other metals, dependent on the requirements of the concrete receiving facility

3. Concrete removed as a result of selective demolition shall be recycled by transporting to established concrete recycling facilities.

4. Contractor shall maintain records, including weight tickets, of all recycled concrete loads and provide to King County a compilation of tons of concrete recycled upon project completion.

D. Green Waste (Landclearing) Recycling

1. Green waste, such as trees, plants, and brush, removed as a result of selective demolition shall be recycled by delivery to established compost facilities. Contractor shall maintain records, including weight tickets, of all recycled green waste loads and provide to King County a compilation of tons of green waste recycled upon project completion.

E. Scrap Metal Recycling: Separate metals by type.

1. Scrap metal, such as fencing and old reinforcement bar, removed as a result of selective demolition shall be recycled at established metal recycling facilities.

2. Contractor shall maintain records, including weight tickets, of all recycled metal loads and provide to Project Engineer a compilation of tons of scrap metal recycled upon project completion.

3.04 DISPOSAL OF WASTE (TRASH)

A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them, via a transfer station acceptable to authorities having jurisdiction.

B. Containers for C&D waste to be disposed in landfill shall be clearly labeled.

C. Some materials, such as filter fabric, plastic perforated pipe, pipe insulation, and roofing felt/protection board, are not readily recyclable. Such material is to be disposed of as waste. Contractor is responsible for loading and transportation of solid waste. Weight tickets of solid waste loads are to be maintained and written documentation provided to King County upon project completion.

D. Except as otherwise specified, do not allow waste materials that are to be disposed of to accumulate on-site.

E. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

F. Burning: Do not burn or incinerate waste materials.

END OF SECTION

SECTION 01 81 13

LEED REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Divisions 00 and 01 Specification Sections, apply to work of this section.

1.02 SECTION INCLUDES

A. LEED® Green Building Rating System Requirements for Project.

1.03 DEFINITIONS

A. LEED®: Leadership in Energy & Environmental Design.

B. USGBC: United States Green Building Council.

C. GBCI: Green Building Certification Institute.

D. LEED Project Administrator: Designated by Owner to provide oversight of LEED related work.

E. General Emissions Evaluation: Product is tested and compliant with California Department of Public Health (CDPH) Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, v1.1-2010, for the emissions testing and requirements of products and materials.

1.04 LEED GREEN BUILDING RATING

A. This project shall be constructed in accordance with USGBC “LEED v4 for New Construction & Major Renovations” Gold Level – GBCI certified.

1.05 LEED CHECKLIST (PROJECT SCORECARD)

A. LEED Checklist included at the end of this section identifies the following:

1. Each LEED Credit to be pursued to achieve LEED certification: “Yes” and “Yes?” columns.

B. LEED Checklist is included for Contractor’s use in determining project specific credits required for compliance and Contractor’s Primary and Support credit responsibilities for compliance with LEED certification.

1.06 SUBMITTALS

A. Refer to Section 01 30 00 for submittal procedures.

B. LEED® Action Plans: Submit preliminary submittals within fourteen (14) days of date established for the Notice to Proceed indicating how the following requirements will be met.

1. Credit MR Prerequisite 2 / Credit 5: Construction Waste Management Plan complying with Section 01 74 19.

C. LEED® Documentation and Submissions: Conform to following as required for LEED documentation of Contractor-responsible LEED Credits.

1. General Requirements:

a. Provide schedule of values by CSI division. Labor and equipment shall be listed separately from material cost.

b. Contractor is responsible for understanding, tracking, preparing and submitting primary and / or supporting LEED Documentation required to obtain the LEED Credits noted to be submitted by Contractor and Subcontractors on the LEED Checklist included at the end of this section.

c. Contractor to provide clarifications and upload documentation as required to clarify and to demonstrate compliance to the GBCI.

d. Contractor to prepare and submit appeal(s) and associated documentation acceptable to GBCI as required to achieve the contractor core and support credits for LEED certification level.

2. Credit Specific Requirements

a. MR Prerequisite 2 / Credit 5 – Construction and Demolition Waste Management: Provide reporting demonstrating diversion of a minimum of 80% and 4 waste streams of construction and demolition waste from the landfill. Comply with Section 01 7419

1.07 QUALITY ASSURANCE

A. Contractor shall have experience providing LEED documentation on previous projects and be fully informed and knowledgeable regarding LEED documentation rationale and requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 LEED COMPLIANCE – GENERAL

A. Contractor to coordinate with the team to meet the requirements of the LEED Prerequisites and Credits as identified in LEED Checklist included at end of this

Section as required for achieve LEED Certification for the Project.

1. Contractor LEED Action Plan: Refer to previously submitted LEED Action Plan outlining the process for planning, implementing, and documenting LEED compliance for each Contractor Core Credit specifically for this project.

B. Prior to beginning Work of this Contract, verify construction conditions as acceptable to achieve LEED Credit and Prerequisite requirements.

1. Do not proceed with Work until unsatisfactory conditions are corrected in a manner acceptable to Owner's LEED Project Administrator, Owner, and Architect.

3.02 EROSION AND SEDIMENTATION CONTROL

A. SS Prerequisite 1 – Construction Activity Pollution Prevention: Conform to intent of this Prerequisite, Project Drawings, and provisions of Division 31.

B. Meet objectives of Erosion and Sedimentation Control Plan:

1. Prevent loss of soil during construction by stormwater run-off and / or wind erosion, including protections of topsoil by stockpiling for reuse.

2. Prevent sedimentation of storm sewer or receiving streams and/or air pollution with dust and particulate matter.

3.03 CONSTRUCTION WASTE MANAGEMENT

A. MR Prerequisite 2 / Credit 5 – Construction and Demolition Waste Management: Comply with Section 01 7419.

3.04 PROHIBITION OF SMOKING

A. EQ Prerequisite 2 – Environmental Tobacco Smoke (ETS) Control: Prohibit smoking within the building during and after construction. See Section 01 3100 and Section 01 8100. Provide proof of permanent no smoking signage installed within 10 feet of all building entrances indicating no smoking policy.

END OF SECTION

DIVISION 02

Existing Conditions

SECTION 02 41 13

SITE UTILITY REMOVAL

PART 1 - GENERAL

1.01 DESCRIPTION

A. Capping and plugging of electrical equipment, sewer and water lines, drainage pipes and structures, and other utility connection, in full accordance with plans.

B. Coordination of removal of power service wire and meters.

C. City of Lake Forest Park assumes no responsibility for actual conditions of existing utilities. Drawings of existing facilities are available for information only and do not necessarily reflect the actual conditions. The Contractor shall verify locations of existing utilities prior to proceeding with any work.

D. Disposal of materials from site.

1.02 EXISTING CONDITIONS

A. All existing utilities that are not scheduled for removal shall be protected, per the requirements of the Division 1 Specification Sections that apply. Utilitys included but not limited to:

1. Overhead Power (Seattle City Light)

2. Sanitary Sewer (Lake Forest Park Sewer District)

3. Water (Lake Forest Park Water District)

4. Gas (Puget Sound Energy)

B. The Contractor shall verify all site conditions before beginning work.

PART 2 - PRODUCTS

2.01 SALVAGEABLE MATERIALS

A. All items of salvageable value shall be salvaged and/or disposed of by the Contractor and shall become the Contractor's property, with the exception of items including but not limited to: maintenance holes, cleanouts, catch basins, irrigation heads, valves, valve boxes, wiring, light fixtures, etc. Those items shall be determined as salvageable after inspection by the Engineer. Those items identified for salvage shall be returned to City of Lake Forest Park. The Contractor shall then legally dispose of all items not deemed of salvageable value by the Engineer.

PART 3 - EXECUTION

3.01 DISCONNECTION OF UTILITIES

A. Underground utilities and elements: Locate all underground utilities and elements prior to digging and/or driving stakes. Take care, to neither disturb nor damage any existing above ground or underground utilities or elements. The Contractor shall call Utility Notification Center @ (811) or (800) 424-5555 or click www.callbeforeyoudig.org for utility location at or near the Public Rights-of-Way / Property Lines. The Contractor shall pay for all fees and costs associated with utility disconnect, capping of lines and meter removals required within the Public Rights-of-Way.

B. Utility Shutoffs: Coordinate all work with other Division 1 requirements. Do not shut off or cap utilities without prior notice. Keep streets, sidewalks and site clean and free from debris at all times. Keep both street and site drainage systems open for free passage of runoff at all times. Provide siltation control and catch basin protection as required by Best Managements Practices and Drainage Codes as required as shown in the contract drawings and/or directed by the Engineer.

C. The disconnection of electrical equipment shall be done by a licensed electrician, prior to beginning electrical demolition. Contractor shall coordinate with Seattle City Light for electrical service disconnect.

D. The disconnection of all water systems in deconstructed buildings shall be done by a licensed plumber, prior to beginning demolition. The Contractor shall coordinate with the Lake Forest Park Water District for service disconnect.

E. The disconnection of all sanitary sewer systems shall be done by a licensed plumber, prior to beginning demolition. The Contractor shall coordinate with the Lake Forest Park Sewer District for service disconnect and specific requirements.

F. Existing site storm drains and catch basins, as indicated on the plans or as directed in the field, shall be kept open and operable at all times Catch basins shall be protected from silt by filter fabric insert ‘sock’ during construction, per Section 01 57 13. Catch basins or pipes that become blocked shall be cleaned immediately by the Contractor.

G. Dispose of all waste material at an approved disposal facility. All efforts should be made to recycle concrete and asphalt materials.

END OF SECTION

SECTION 02 42 93

BUILDING DECONSTRUCTION

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Deconstruction and removal of Buildings 1, 2, 3, 4, 5, and 9 down to first floor elevation for salvage, as shown on the Contract Drawings.

2. Deconstruction and removal of select cast-in-place concrete, fencing, block walls, and all associated miscellaneous objects throughout the project limits for salvage, according to Contract Drawings.

3. Salvaging items for reuse by Owner, according to these specifications.

B. Related Sections:

1. SECTION 01 74 19 – Construction Waste Management and Disposal

2. SECTION 02 82 00 – Asbestos Abatement

3. SECTION 02 43 00 – Lead In Construction

4. SECTION 02 84 16 – Universal Waster & Other Regulated Waste

1.02 DEFINITIONS

A. Full Deconstruction: Removal by disassembly of a building in the reverse order in which it was constructed.

B. Salvage: Removal of disassembled building materials for the purpose of reuse or recycling.

C. Demolish: Remove and legally dispose of off-site.

1.03 MATERIALS OWNERSHIP

A. Unless otherwise indicated, deconstruction waste becomes property of Contractor.

1.04 SUBMITTALS

A. Qualification Data: For deconstruction firm.

B. Schedule of Deconstruction Activities: Indicate the following:

1. Detailed sequence of deconstruction and removal work, with starting and ending dates for each activity.

2. Interruption of utility services. Indicate how long utility services will be interrupted.

3. Coordination for shutoff, capping, and continuation of utility services.

4. Locations of proposed dust- and noise-control temporary partitions and means of egress.

5. Means of protection for items to remain and items in path of material removal from building.

C. Inventory: After deconstruction is complete, submit a list of items that have been salvaged, recycled and disposed of and documentation (receipts/scale tickets/waybills) showing the quantities.

D. Deconstruction Photographic Documentation: Document general condition of materials to be salvaged prior to removal.

E. Submit deconstruction plan prior to start of work.

1.05 QUALITY ASSURANCE

A. Deconstruction Firm Qualifications: Company(ies) experienced and specializing in performing the Work of this Section with documented experience in similar types of deconstruction work.

B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

C. Comply with noise and dust regulations of authorities having jurisdiction.

D. Pre-Deconstruction Conference: Conduct conference at Project site. Review methods and procedures related to deconstruction including, but not limited to, the following:

1. Inspect and discuss condition of building to be deconstructed.

2. Review structural load limitations of existing structure.

3. Review and finalize deconstruction schedule and verify availability of materials, personnel, equipment, and facilities needed to make progress and avoid delays.

4. Review requirements of work performed by other trades that rely on substrates exposed by deconstruction operations.

5. Review areas where existing construction is to remain and requires

protection.

6. Review method for removing materials from the site.

7. Review staging area for materials on the site.

1.06 PROJECT CONDITIONS

A. Hazardous Materials are present on site and within buildings to be demolished.

1. Perform Hazardous Materials Survey and abatement prior to any deconstruction activities according to specification Section 02 82 00 – Asbestos Abatement and Section 02 84 16 Universal Waster & Other Regulated Waste

2. If materials suspected of containing hazardous materials are encountered, and not identified within the Hazardous Materials Survey do not disturb; immediately notify Engineer and Owner.

B. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during deconstruction operations.

1. Maintain and protect water meter located adjacent to buildings 7 and 8

2. Maintain fire-protection facilities in service during deconstruction operations.

3. Maintain and protect power service for buildings 6, 7, and 8.

4. Maintain and protect sanitary side sewer, associated manholes and clean outs for building 6, 7, and 8.

1.07 DECONSTRUCTION PLAN

A. Material Identification: Indicate anticipated types and quantities of materials to be salvaged, recycled, and disposed of. Indicate quantities by weight or volume, but use same units of measure throughout.

B. Procedure: Describe deconstruction methodology, sequencing, and materials handling and removal procedures. Include the anticipated final destination of each material.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that utilities have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of deconstruction required.

C. Inventory and record the condition of items to be removed and salvaged.

D. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during deconstruction operations.

E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or videotapes.

F. Perform surveys as the Work progresses to detect hazards resulting from deconstruction activities.

3.02 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during deconstruction operations for Buildings 6, 7 and 8.

B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems.

3.03 PREPARATION

A. Site Access and Temporary Controls: Conduct deconstruction operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to workers and damage to salvageable materials.

1. Provide protection to ensure safe passage of workers around deconstruction area.

2. Provide weather protection for all salvage materials (and items to remain) before, during and after deconstruction.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to prevent unexpected or uncontrolled movement or collapse of construction being deconstructed].

1. Strengthen or add new supports when required during progress of deconstruction.

3.04 DECONSTRUCTION

A. General: Deconstruct and remove existing construction in accordance with the

materials identified for removal in the deconstruction plan. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with deconstruction systematically, from higher to lower level. Complete deconstruction operations above each floor or tier before disturbing supporting members on the next lower level.

2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.

3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.

4. Maintain adequate ventilation when using cutting torches.

5. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site in accordance with all federal, state and local regulations.

6. Remove structural framing members in such a way as to maintain their highest value.

7. Locate deconstruction equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.

8. Dispose of demolished items and materials promptly.

B. Salvaged Items:

1. Sort and organize salvaged materials as they are removed from the structure.

2. Pack, crate or band materials to keep them contained and organized.

3. Store items in a secure and weather protected area. The garage of Building 7 is identified for storage of salvaged items to remain on site.

4. Protect items from damage during storage.

C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during deconstruction activities. When permitted by Project Engineer, items may be removed to a suitable, protected storage location during deconstruction and cleaned and reinstalled in their original locations after deconstruction operations are complete.

3.05 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them.

1. Do not allow demolished materials to accumulate on-site.

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

4. Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."

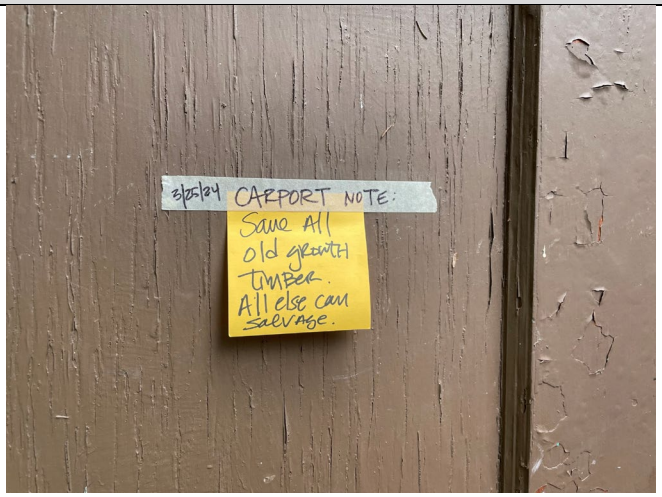
B. Burning: Do not burn demolished materials.

3.06 CLEANING

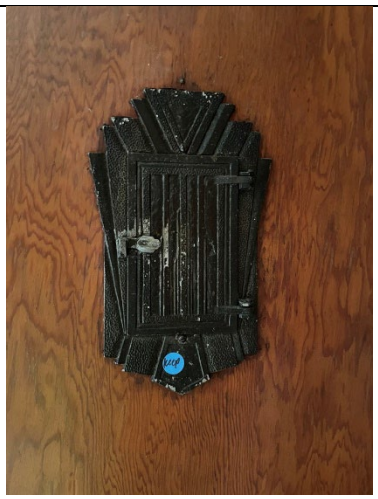
A. Clean adjacent structures and improvements of dust, dirt, and debris caused by deconstruction operations. Return adjacent areas to condition existing before deconstruction operations began.

3.07 SALVAGED MATERIALS FOR REUSE BY OWNER SCHEDULE

A. Existing Items to Be Removed and Salvaged:

Building No.	Salvage Item	Photo	Location Description
1	All old growth wood		Old growth in carport construction, some loose in overhead storage. Everything else can go.

2	Fireplace irons		Living room
2	Wood mantle		Living room
2	Cedar tongue and groove, finished and unfinished		Most rooms, closet interiors. Salvage only un-glued pieces.

2	Speakeasy in front door		Main front door
3	Wood mantle		Living room
3	Cedar tongue and groove, finished and unfinished		Most rooms, closet interiors. Salvage only un-glued pieces.

3	Speakeasy in front door		Main front door
4	Wood mantle		Mantle is similar to those in Cabins 2&3. Photo is of similar mantle.
SITE	All non-ACM brick (loose, sand set in ground, and chimneys)		Per Haz-mat report

END OF SECTION

SECTION 02 82 00

ASBESTOS ABATEMENT

PART 1 - GENERAL

1.01 RELATED WORK DESCRIBED ELSEWHERE:

A. The provisions and intent of the contract, including the General Conditions, Special Conditions and General Requirements apply to this work as if specified in this Section. Work related to this Section is described in:

1. Section 02 83 00 – Lead in Construction
2. Section 02 84 16– Universal and other Regulated Waste Activities

1.02 DESCRIPTION OF WORK:

A. The Contractor shall supply all labor, materials, services, insurance, special permits, and equipment necessary to remove and dispose of asbestos-containing materials (ACM) within the project areas in accordance with all applicable federal, state, and local regulations and these specifications. Coordinate with the specifications for related scopes of work.

B. See the Limited Hazardous Building Material Survey – City of Forest Park Lake Front Improvements Project, March 2024, prepared by EHS-International for site summary of the asbestos-containing materials identified and sampled in preparation for this project.

1.03 GENERAL REQUIREMENTS:

A. The regulated materials abatement work of this project is in preparation of work to be completed by others. Failure to complete the specified tasks identified within the allotted contract time will result in serious damages. Prior to submitting a bid for this work, the Contractor is responsible for review and coordination with the scheduled work and ensures that adequate resources have been identified to complete the proposed work tasks on schedule.

B. Contractor is responsible to notify and provide all necessary notifications to the responsible regulatory agencies for all required work.

C. Contractor is responsible to take appropriate measures ensuring that the project site will be safeguarded from contamination during the asbestos abatement project period.

D. Building materials in the project area that are not clearly identified within the contract documents shall be treated as ACM unless otherwise noted.

E. All work is to be performed in accordance with applicable codes, standards, regulations, and accepted industry practices. This includes compliance with regulatory requirements

applicable at the time the work is performed and is not limited to requirements at the time of bid. All work, including work practices, is to be craftsman-like and is subject to inspection by the Owner and/or Owner's representative, and regulatory agency personnel.

F. The work described in this section is a general description and is not intended as a complete listing of the work to be accomplished. The work of this project may be expanded or deleted above and beyond the specified scope by the Owner to include encapsulation, removal, transportation, and disposal of regulated materials that may be encountered during the project.

G. All required permits and notifications should be kept valid for the duration of the work. This includes any permit and/or notification revisions, such as changes of abatement dates, shift times, work locations, Contractor personnel, etc.

H. All employees involved in asbestos abatement activities shall be the bearer of a current Certified Asbestos Worker card issued by the Washington State Department of Labor and Industries. Cards shall be available for inspection at the jobsite. The Contractor shall also provide, as a minimum, one (1) person certified by L&I as an Asbestos Abatement Supervisor and this person shall be responsible for overall abatement activities. This person shall be immediately available on-site when any project work is performed. If abatement work is performed on multiple shifts, each shift shall have a Certified Asbestos Supervisor.

I. Smoking or open fires will not be permitted within the building enclosure or on the facility's premises.

J. Contractor is responsible for all air sampling to comply with WISHA and other local, state, and federal regulations. Refer to Paragraph 1.7 of this section for requirements for Contractor air monitoring.

K. On-site Observation:

1. The safety and protection of the Contractor's employees, sub-contractor's employees, Owner's employees, consultant, the facility, and the public are the sole responsibility of the Contractor.
2. The Owner and/or Owner's representative or representatives of local, state, or federal agencies may make unannounced visits to the site during the work. The Contractor shall provide two complete sets of clean, protective clothing and respirators with the same protection factor as required in the regulated area available daily for such visitor use. It is the visitor's responsibility to ensure all necessary medical qualification, training, and "fit test" certificates are current prior to using any respirator or protective clothing provided by the Contractor.
3. If the Owner and/or Owner's representative or agency visitor determines that practices are in violation of applicable regulations, or are endangering workers, the public, or the facility, they will immediately notify the Contractor orally that operations must cease until corrective action is taken.

    a. All costs resulting from such stop work order and any necessary corrective actions will be borne solely by the Contractor and will not be a basis for an increase in the contract amount or an extension of time.

1.04 ASBESTOS ABATEMENT DEFINITION:

A. Definitions Relevant to Asbestos Abatement:

1. Abatement: Procedures to control fiber release from asbestos-containing materials. Includes removal, enclosure, repair, demolition, and renovation activities.
2. ACGIH: American Conference of Governmental Industrial Hygienists.
3. Aerosol: A system consisting of particles, solid or liquid, suspended in air.
4. AIHA: American Industrial Hygiene Association, 475 Wolf Ledges Parkway, Akron, OH 44311.
5. Airlock: A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area, typically consisting of two curtained doorways separated by a distance of at least 3 feet.
6. Air Monitoring: The process of measuring the fiber content of a known volume of air collected during a specific period. The procedure most utilized in industry for asbestos follows the WISHA reference method outlined in WAC 296 62 07735, Appendix A, and WAC 296 62 07737, Appendix B. For clearance air monitoring, aggressive monitoring techniques are used and shall be conducted in accordance with EPA document #560/5 85 024 (June 1985). Electron microscopy methods may also be utilized for lower detectability as well as specific fiber identification.
7. Air Sampling Firm (ASF): A professional firm providing specialized services by trained and certified or qualified personnel in the field of asbestos abatement and project management, contracted with or employed by the Contractor or tenant to supervise and/or conduct inspection, monitoring, and analysis services.
8. Amended Water: Water to which a surfactant has been added to accomplish more thorough penetration and saturation of the asbestos-containing material.
9. ANSI: American National Standards Institute.
10. Asbestos: The mineral varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthophyllite, actinolite and tremolite. For purposes of determining respiratory and worker protection, both the asbestiform and non-asbestiform varieties of the above minerals and these minerals that have been chemically treated and/or altered shall be considered as asbestos.
11. Asbestos-Containing Material (ACM): Any material containing more than one percent (1%) asbestos as defined under NESHAPS CFR 40, Part 61, and OSHA 29 CFR Part 1926.1101, or at least one percent (1%) asbestos as defined under Regulation III of the Puget Sound Clean Air Agency.
12. ASTM: American Society for Testing and Materials.
13. Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.
14. Bridging Encapsulant: The application of a sealant over the surface of asbestos-containing material to prevent the release of asbestos fibers.
15. Certified Industrial Hygienist (CIH): An Industrial hygienist certified in the Comprehensive Practice or Chemical Aspects of Industrial Hygiene by the American Board of Industrial Hygiene.
16. Class I Asbestos Work: Activities involving the removal of thermal system insulation or surfacing ACM/PACM.
17. Clean Room: An uncontaminated area or room, which is a part of the worker decontamination enclosure system with provisions for storage of worker's street clothes and clean protective equipment.
18. Containment: An enclosure system.

19. Contractor: The individual or business with which the Owner contracts with to perform the asbestos abatement.
20. Competent Person: The individual onsite (a representative of the contractor) who can identify existing asbestos, hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate them as specified in WAC 296-62-07728. The competent person shall meet all requirements specified in WAC 296-62-07728. The competent person shall be certified as an asbestos supervisor in compliance with WAC 296-65-030(3) and 296-65-012.
21. Curtained Doorway: A device to allow ingress or egress from one room to another typically constructed by placing two overlapping sheets of plastic over an existing or temporarily framed doorway.
22. Cutting: To penetrate with a sharp-edged instrument and includes sawing, but does not include shearing, slicing, or punching.
23. Differential Pressure System: A containment system utilizing negative air machines in an airtight enclosure.
24. Disposal Bag: 6 mil thick leak-tight plastic bags used for transporting asbestos waste from the work site and to the disposal site. Each shall be labeled in accordance with WAC 296 62 07721 and 40 CFR 61.150 and PSCAA 4.05(b)10.
25. Encapsulant: A material which is applied to asbestos-containing material to reduce or control the potential release of asbestos fibers from the material, either by creating a membrane over the surface (bridging encapsulant), or by penetrating the material and binding its components together (penetrating encapsulant).
26. Encapsulation: The application of an encapsulant to asbestos-containing materials in accordance with the manufacturer's specifications.
27. Enclosure: A semi-airtight system used to segregate and isolate an asbestos abatement area, and which is continuously served by a negative pressure ventilation system once abatement activities start.
28. EPA: U.S. Environmental Protection Agency, Region X, 1200 Sixth Avenue, Seattle, WA 98101.
29. Equipment Room: An area or room, which is part of the worker decontamination enclosure system with provisions for storage of contaminated clothing and equipment.
30. Excursion Limit: The maximum personal exposure concentration of asbestos fibers in air for any 30-minute period (1.0 f/cc).
31. Facility: Any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential dwellings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building.
32. Facility Component: Any part of a facility including equipment.
33. Filter: A media component used in respirators or equipment to remove solid or liquid particles from air or water.
34. Fixed Object: A piece of equipment or furniture that cannot be removed from the work area.
35. Friable Asbestos Material: Any material containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763 section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less

than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM) verify the asbestos content by point counting using PLM.

36. Friable Upon Removal: A non-friable material, which becomes friable when disturbed during removal.
37. Fugitive Source: Any source of emissions not controlled by an air pollution control device.
38. Glovebag Technique: A method for removing small amounts of friable asbestos-containing material from fireproofed beams, HVAC ducts, short piping run, valves, joints, elbows, and other non-planar surfaces in a non-contained (plasticized) work area. The glovebag assembly is a manufactured or fabricated device consisting of a bag (typically constructed of plastic), two inward projecting long sleeve gloves, an internal tool pouch and an attached or pre-printed label. All workers who are permitted to use the glovebag technique must be trained, experienced and skilled in this abatement method.
39. Grinding: To reduce to powder or small fragments and includes mechanical chipping or drilling.
40. HEPA Filter: A high efficiency particulate air filter capable of removing particles greater than 0.3 microns in diameter with 99.97% efficiency using Dop testing methodology.
41. HEPA Vacuum: A vacuum system equipped with HEPA filtration.
42. HEPA Machine: Negative air machine equipped with HEPA filtration.
43. HVAC: Heating, Ventilation and Air Conditioning System.
44. Installation: Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of the same owner or operator (or owner or operator under common control).
45. L&I: Washington State Department of Labor and Industries, 805 Plum Street, S.E. (HC 412), Olympia, Washington 98504.
46. Leak-Tight: Solids or liquids cannot escape or spill out. It also means dust tight.
47. Malfunction: Any sudden and/or unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of asbestos are increased. Failures of equipment shall not be considered malfunctions if they are caused in any way by poor maintenance, careless operation, or any other preventable upset conditions, equipment breakdown, or process failure.
48. Material Decon Unit: A decontamination system, which is utilized for transferring containerized waste from inside to outside of the work area.
49. Movable Object: A piece of equipment or furniture in the work area, which can be removed from the work area.
50. MSDS: Material Safety Data Sheet.
51. Mudded Pipe Insulation Section: A continuous section of pipe insulation less than 12” in length, which may contain one or more plumbing fitting(s) (i.e., elbows, tees, valves, “y’s”, unions, etc.).
52. Negative Air Machine: A specially designed fan mounted in a cabinet that draws air from the contaminated space into pre-filters and a HEPA filter.
53. Negative Pressure Respirator: A respirator in which the air pressure inside the respirator is negative during inhalation in relation to the air pressure outside the respirator.
54. Negative Pressure Enclosure: The negative pressure/local exhaust system, utilizing HEPA filtration capable of maintaining a negative pressure of 0.02 inches of water inside the work area and a minimum of four (4) air exchanges per hour

from adjacent areas into the work area and exhausting clean, filtered air outside work area.

55. Negative Pressure: Air pressure lower than surrounding areas, generally caused by exhausting air from within the containment work area. A sufficient volume or air shall be exhausted to create a minimum pressure of -0.02 inches of water within the enclosure with respect to the area outside of the containment work area.
56. NESHAP: The National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).
57. Non-Friable Asbestos-Containing Material: Any material containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
58. NIOSH: The National Institute for Occupational Safety and Health, Building "J" N.E., Room 3007, Atlanta, GA 30333.
59. OSHA: The Occupational Safety and Health Administration, 1111 Third Avenue, #715, Seattle, WA 98101-3212.
60. Outside Air: The air outside building, structure, negative air enclosure, containment or designated regulated area.
61. Owner or Operator of a Demolition or Renovation Activity: Any person, who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person, who owns, leases, operates, controls, or supervises the demolition or renovation operation or both.
62. PCM: Phase Contrast Microscopy
63. PLM: Polarized Light Microscopy
64. Particulate Asbestos Material: Finely divided particles of asbestos or material containing asbestos.
65. Penetrating Encapsulant (Lock-down): Liquid material applied to asbestos-containing material to control airborne fiber release by penetrating the material and binding its components together.
66. Personal Monitoring: Sampling the asbestos fiber concentrations within the breathing zone of an employee during representative operations as required by applicable regulations.
67. Protection Factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance outside the respirator to the concentration inside the respirator at the breathing zone of the wearer.
68. Prior Experience: Experience required of the Contractor on asbestos projects of similar nature and scope to ensure the capability of performing asbestos abatement in a satisfactory manner. Similarities shall be in areas related to material composition, project size, abatement methods required, number of employees and the engineering, work practice and personal protection controls required.
69. Regulated Area: An area established by the Contractor to demarcate areas where airborne concentrations of asbestos exceed or can reasonably be expected to exceed the permissible exposure limits. The regulated area may take the form of (a) a temporary enclosure, as required by WAC 296 62 07711, or (b) an area demarcated in any manner that minimizes the number of employees exposed to asbestos.
70. Regulated Asbestos-Containing Material (ACM): (a) Friable asbestos material, (b) Category I Non-friable ACM that has become friable, (c) Category I Non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II Non-friable ACM that has a high probability of becoming or has

become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

71. Removal: To take off asbestos containing materials from surfaces or components of a facility.
72. Renovation: Altering a facility or one or more facility components in any way, including the stripping or removal of ACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
73. Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.
74. Shower Room: A room between the clean room and the equipment room within the worker decontamination system supplied with hot and cold running water controllable at the tap, adequate soap and suitably arranged for complete showering.
75. Staging Area: Either the holding area or some areas near the waste transfer airlock where containerized asbestos waste has been placed prior to removal from the work area.
76. Structural Member: Any loaded-bearing member of a facility, such as beams and load-bearing walls or any non-load supporting member, such as ceilings and non-load supporting walls.
77. Surfactant: A chemical wetting agent added to water to improve penetration.
78. Time Weighted Average (TWA): The average exposure to a contaminant in air measured during a specific time period, usually a shift, adjusted to eight hours.
79. Visible Emissions: An emission containing particulate asbestos material that is visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.
80. Waste Generator: Any owner or operator of a source covered by Department of Transportation regulations whose act or process produces asbestos-containing waste material. All demolition debris materials, including asbestos-containing materials, except those containing substances classified as hazardous or dangerous by controlling local, state, or federal regulatory agencies, shall upon their demolition became the property of the Contractor.
81. Waste Shipment Record: The shipping document, required to be originated and signed by the waste generator, used to track, and substantiate the disposition of asbestos-containing waste material.
82. Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with water and afterwards thoroughly decontaminated or disposed of as asbestos contaminated waste.
83. Work Area: Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated because of such abatement actions.
84. Worker Decontamination System: A series of connected rooms, consisting of a clean room, a shower room and an equipment room separated from each other and from the work area by curtained doorways. This system is used for all worker entries and exits from the work area.
85. WSDOT: Washington State Department of Transportation, Transportation Building, KF-01, Olympia, WA 98504.

1.05 REFERENCE STANDARDS:

A. General Requirements:

1. All work under this contract shall be done in strict accordance with all applicable regulations, standards and codes governing asbestos abatement and in accordance with the “Standards of the Industry”. This includes any other work, including trade work conducted in conjunction with the project.
2. The most recent edition of any relevant regulation, standard, document, or code shall be in effect during the work, regardless of the effective date of this specification’s governing contract. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be utilized. All regulatory revisions and requirements relating to this project after the contract is signed shall, nonetheless, be incorporated at no additional cost to the Owner.

B. EPA Guidance Documents: Which discuss asbestos abatement work or hauling, and disposal of asbestos waste materials are listed below for the Contractor’s information only. These documents do not describe the work and are not a part of the work of this contract. The EPA maintains an information number of (800) 334 8571.

1. Asbestos-Containing Materials in Buildings - A Guidance Document. Parts 1&2 (Orange Books) EPA C00090 (out of print).
2. Guidance for Controlling Asbestos-Containing Materials in Buildings (Purple Book) EPA 560/5-85-024.
3. Friable Asbestos-Containing Materials in Schools: Identification and Notification Rule (40 CFR Part 763).
4. Evaluation of the EPA Asbestos-in-Schools Identification and Notification Rule. EPA 560/5-84-005.
5. Asbestos in Buildings: National Survey of Asbestos-Containing Friable Materials. EPA 560/5-84-006.
6. Asbestos in Buildings: Guidance for Service and Maintenance Personnel. EPA 560/5-85-018.
7. Asbestos Waste Management Guidance. EPA 530-SW-85-007.
8. Asbestos Fact Book. EPA Office of Public Affairs.
9. Asbestos in Buildings. Simplified Sampling Scheme for Friable Surfacing Materials.
10. Commercial Laboratories with Polarized Light Microscopy Capabilities for Bulk Asbestos Identification.
11. A Guide to Respiratory Protection for the Asbestos Abatement Industry. EPA-560-OPTS-86-001. CODES AND REGULATIONS:

C. General Applicability of Codes, Regulations and Standards: Except to the extent that more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards have the same force and effect and are incorporated into the contract documents by reference as if copied directly into the contract documents.

D. Federal Requirements: Which govern asbestos abatement work or hauling and disposal of asbestos waste materials including but not limited to the following:

1. U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA), including but not limited to:

    a. Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite; Final Rules Title 29, Part 1910, Section 1001 and Part 1926, Section 58 of the Code of Federal Regulations.
    b. Respiratory Protection Title 29, Part 1910, Section 134 of the Code of Federal Regulations.
    c. Construction Industry Title 29, Part 1926, of the Code of Federal Regulations.
    d. Access to Employee Exposure and Medical Records Title 29, Part 1910, Section 2 of the Code of Federal Regulations.
    e. Hazard Communication Title 29, Part 1910, Section 1200 of the Code of Federal Regulations.
    f. Specifications for Accident Prevention Signs and Tags Title 29, Part 1910, Section 145 of the Code of Federal Regulations.

2. U.S. Environmental Protection Agency (EPA), including but not limited to:

    a. Regulation for 40 A of the Code of Federal Regulations 763.
    b. National Emission Standard for Hazardous Air Pollutants; Asbestos, NESHAP Revision; Final Rule, 40 CFR, Part 61, of the Federal Register.
    c. Office of Solid Waste publication Asbestos: Waste Management Guidance (EPA/530-SW-85-007).

3. Department of Transportation (DOT) including, but not limited to the following:

    a. Hazard Material Regulations (HMR) 49 CFR parts 171-180.
    b. 49 CFR part 107, et. seq., Performance-Oriented Packaging Standards; Changes of Classification, Hazard Communication, Packaging and Handling Requirements Based on UN Standards and Agency Initiative; Final Rule.

E. Washington State Requirements: WISHA rules which govern asbestos abatement work or hauling and disposal of asbestos waste material including but are not limited to the following:

1. General Occupational Health Standards Chapter WAC 296 62.
2. Asbestos Removal and Encapsulation Chapter WAC 296 65.
3. Safety Standards for Construction Work Chapter WAC 296 155.
4. Parts – Demolition WAC 296.155.975.
5. WISHA Regional Directives 79 23 (Amended) regarding minimum airborne fiber concentration for initiation and continuing asbestos medical examinations, 80 16 (amended) regarding respirable air supplied by oil-lubricated compressors, 83 10 (Amended) regarding respirator requirements for removal, demolition, and spraying of asbestos, 87 2 Respiratory Protection Requirements for negative pressure enclosures
6. Safety Standards Chapter WAC 296 24.
7. WISHA/Department of Occupational Safety and Health Directive 23.90: Respiratory Protection for Class I Asbestos Work, dated July 6, 2022.

F. Local Requirements which govern asbestos abatement work or hauling, and disposal of asbestos waste materials include but are not limited to the following:

1. Puget Sound Clean Air Agency (PSCAA) Regulation III, Article 4-Asbestos Control Standard.

1.06 ASBESTOS ABATEMENT SUBMITTALS:

A. Contractors shall provide complete submittals as specified below for review by the Owner's representative. If applicable, submittals should be provided in accordance with Section 01 33 00: Submittals.

B. Pre-Work Submittals: Submittals must be suitably titled and indexed, providing detailed information concerning the following items as a minimum in the order listed below:

1. Written Health and Safety Plan that includes the following elements:

a. Company Accident Prevention Plan: that includes a phone contact list containing the names, addresses, telephone numbers and email addresses of the contractor; contractor's supervisor, and all other contractor personnel who may be required to assist during project work.
b. Hazard Communication Plan: submit MSDS for all materials to be used in the work.
c. Respiratory Protection Plan (for each contractor that has workers onsite that may be required to wear respirators).

1) Documentation by letter signed by Contractor that all employees or agents required to wear a negative pressure respirator has been medically evaluated in accordance with WAC 296-62, Part E.
2) Document NIOSH approvals for all respiratory protective devices utilized on site, including a list of approved components (parts) for each type of respirator that may potentially be used on the project.
3) Document by letter signed by Contractor that respirator fit testing for all contractor employees and agents who wear a negative pressure respirator is current. This fit testing shall be in accordance with quantitative procedures as detailed in the WAC 296 62, Part E.
4) Medical Surveillance Program
5) Site Housekeeping Plan
6) Daily Job Submittals (examples of forms to be submitted)

2. Asbestos Work Plan (General): Include a detailed plan of the procedures proposed for use in complying with the requirements, including the following:

a. Methods: A description of all techniques, methods, and special equipment to be used during the contract, including methods for abatement work required for this project (negative pressure enclosures with worker decontamination and waste load-out, mini-enclosures, glovebags, removal of contaminated soils, etc.). Include typical work procedures for each unit of work identified on the bid documents.
b. Shop Drawings: Provide shop drawings at each work area throughout the contract duration to show the layout of containment, exhaust route, regulated area barriers, construction barriers, etc. Show where the negative air machines, worker decontamination chambers, waste load-out areas, power,

and make-up air will be placed. Include view window and manometer locations. This information will be submitted and approved by the Owner's representative, 72 hours prior to the start of work.

c. Handling of Waste: Specific information relating to handling, transport, and disposal of asbestos-containing waste.

1) Landfill: Identify the proposed disposal site at which any waste material generated during the project will be disposed and furnish evidence of all necessary government approvals to dispose of the waste.

3. Laboratory Qualification Information: Submit the proposed Independent Testing Laboratory's written Laboratory Quality Control Program.

a. The Laboratory shall prove proficiency in the AIHA/NIOSH PAT Program and NVLAP program. The submitted copy of the Quality Control Program shall minimally meet or exceed WISHA standards. Failure to comply with these standards will require lab work to be subcontracted to another laboratory at no additional cost to the Owner.

4. Air Monitoring Program: The Air Monitoring Program shall include the proposed sampling plan, sampling procedures, and field quality control procedures of the firm conducting the air monitoring. Each type of enclosure will require a specific air monitoring plan (negative pressure enclosures with worker decontamination and waste load-out, mini-enclosures, glovebags).

a. Worker Certification: Submit copies of Asbestos Supervisor and Asbestos Worker Certifications for employees scheduled to work on the project in compliance with WAC Chapter 296-65-010.
b. Contractor Certification: Contractor shall submit proof of current certification of Contractor by L&I as a certified asbestos abatement firm.
c. Asbestos Supervisor/Competent Person: Submit the name, Asbestos Supervisor Certification, and resume of experience of the assigned onsite supervisor. At a minimum, the supervisor shall have successfully completed a Supervisor Training Course in compliance with WAC Chapter 296-65-007.
d. Respirator Fit Test Records: Submit a copy of the quantitative and qualitative fit-test records for personnel performing asbestos work.

5. Notifications: Submit a copy of all required notifications and permits obtained by the Contractor (Washington State Department of Labor and Industries and Puget Sound Clean Air Agency [PSCAA]). Submit upon receipt any approved amendments to notifications or re-notification for multi-phase activities.

C. Construction Phase Submittals: Submit the following information daily to the Owner and Owner's representative. This information shall be submitted prior to the start of work on the next scheduled work shift (if applicable).

1. Air and bulk sample data collection sheets and laboratory analytical results. The laboratory results, signed by the lab manager, shall be returned to the site prior to the start of abatement for the same work shift the following day.
2. Certified Asbestos Supervisor daily inspection report.

3. Bonds and Insurance: Submit upon receipt any approved amendments to notifications or re-notification for multi-phase activities.

D. Post construction submittals: Asbestos Work Records – The Contractor shall submit to the Owner and Owner's representative within TWENTY-FIVE days after substantial completion of the regulated building material work, the following:

1. Project Overview: Provide a basic project summary identifying the scope and summarizing the work performed by the Contractor. Provide enough information to have a basic understanding of the project and include project and contact names and ID numbers, Contractor's company name, where, when, and what type of work was completed, and discussion of significant problems encountered during the work. Written summary shall include a description of all changes or modifications to the Contractor's pre-construction Work Plan.
2. Certification: Provide written certification from the Contractor's Project Manager or Supervisor that the Contractor has fully inspected the work area and completed work in strict accordance with the Specifications.
3. Air Monitoring: Submit documentation of all contractor/sub-contractor air monitoring results relative to regulatory compliance. Include copies of all air monitoring data sheets, chain-of-custody documentation and analysis reports for sampling conducted at the site.
4. Project Record Documents: Provide project records including documentation of all contract changes, and copies of work site entry logbooks, safety logs, sign-in sheets, and supervisor daily field reports. Provide copies of project meetings for pre-abatement, construction period, and project closeout meetings.
5. Disposal Manifests: Submit copies of all asbestos waste disposal transportation and disposal manifests including signed receipts from the landfill, and chain-of-custody.
6. Submit copies of amendments or modifications to pre-construction, Notices, and Permits that were filed with regulatory agencies during the project.
7. Submit copies of inspections or visits by regulatory agencies. Include copies of any citations or notices received by the Contractor from regulatory agencies during the project.

1.07 AIR MONITORING:

A. The following describes air monitoring to verify that the building beyond the work area and the outside environment remain uncontaminated. This section also sets forth airborne fiber levels both inside and outside the work area as action levels and describes the action required by the Contractor if an action level is met or exceeded.

B. The Contractor is required at its own expense to take its own employee air samples by L&I per the following regulations:

1. WAC 296-62-07709 (Exposure Monitoring)
2. WAC 296-62-07735 (Appendix A)

C. The air samples must be analyzed by a laboratory in accordance with the following:

1. Personnel conducting onsite asbestos air sample analysis shall be listed on AIHA's Registry of Proficiency and shall have successfully completed NIOSH 582 (or equivalent) training.
2. The laboratory conducting bulk sample analysis shall be accredited by the United States Department of Commerce, National Institute of Standards and Technology's NVLAP program.
3. The laboratory conducting analysis of air samples shall be satisfactory participants in the NIOSH Proficiency Analytical testing (PAT) program and AIHA Registry and shall produce their PAT number and results on request.

D. Air Monitoring Requirements (interior abatement areas only):

1. Baseline/Pre-abatement Air Monitoring: Prior to beginning asbestos abatement tasks, the Contractor shall conduct air monitoring to determine the relative airborne fiber concentrations in an area during the normal functioning of that building or space.
2. Personal Samples: The Contractor shall daily conduct representative personal monitoring in each abatement work area on each representative work activity.
3. Final Air Clearance: The contractor shall conduct aggressive air sampling of the regulated area after the Owner and/or Owner's representative certifies visual clearance and bridging and penetrating encapsulant has been applied. The containment will remain in place until the Contractor's final air clearance analytical results meet acceptable levels. Paragraph 3.09 details the work area clearance process.
4. Where feasible, samples shall be collected according to the WISHA Reference Method (WAC 296 62 07735, Appendix A) and Detailed Procedure for Asbestos Sampling and Analysis (WAC 296 62 07737, Appendix B) and NIOSH Method 7400 (as revised). All samples shall be collected at a height of approximately 60 inches above the working floor for projects with 8-10-foot ceiling heights, unless otherwise directed.

E. Analytical Methods: The following methods will be used for analyzing filters used to collect air samples other than clearance:

1. Twenty-five-millimeter (25 mm) cellulose ester filters with 50mm conductive cowl extensions will be used for all sampling. Sampling and analysis for personal samples will be conducted according to the OSHA/WISHA Reference Method. Area clearance samples will be analyzed according to the NIOSH 7400 Method using airflow rates between 1 - 10 liters per minute. At least 1200 liters of air will be collected. All inside and outside air sampling shall be continuous throughout work shift.
2. TEM analysis will be NIOSH 7402 method.

F. Sample Volumes: Sample volumes shall be sufficient to establish the quantification limit (QL) necessary for the type of sample collected. The formulas listed in the WISHA Reference Method will be used to calculate sample volumes and/or flow rates. Sample volumes will be sufficient to collect between 100-1300 fibers per square millimeter (f/mm2) of filter area. At a minimum, for Pre-abatement and Clearance samples, the QL will be 0.005 f/cc based on the EPA suggested minimum filter loading of 10 fibers in 100 fields counted. For personal samples, the QL will be 0.05 f/cc. Note: this cannot be accomplished with a STEL.

G. Laboratory Testing:

1. The Contractor will have a qualified laboratory perform analysis of the air samples required to monitor abatement procedures. The laboratory results, signed by the lab manager, shall be returned to the site prior to the start of abatement for the same work shift the following day.
2. Written Reports: All air monitoring test results and daily inspection logs will be posted at the job site daily.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. GENERAL:

1. Damaged, deteriorating or previously used materials shall not be used and shall be removed from the worksite and disposed of properly.
2. Polyethylene sheeting for walls and stationary objects shall be a minimum of 6 mil thick. For floors and all other uses sheeting of at least 6 mil thickness shall be used in widths selected to minimize the frequency of joints. Polyethylene shall be fire retardant per UL Ratings and ASTM standards D-2898-81 and D-3201-79.
3. Disposal bags shall be 6 mil polyethylene, pre-printed with labels as required by EPA regulation 40 CFR 61.150 (a) (i) (iv) (v) or WISHA Chapter 296 62 0072.
4. Disposal drums shall be metal or fiberboard with locking ring tops; labeled in accordance with EPA regulation 40 CFR 61.150 (a) (i) (iv) (v).
5. Warning signs as required by WISHA Chapter 296 62 07721.

B. SURFACTANT: (wetting agent): shall be a 50/50 mixture of Polyethylene ester and polyoxyetylene ester, or equivalent, mixed in a proportion of 1 fluid ounce to 5 gallons of water as specified by manufacturer. (An equivalent surfactant shall be understood to mean a material with surface tension of 29 dynes/cm as tested in its properly mixed concentration, using ASTM method D1331 56- “Surface and Interfacial Tension of Solutions of Surface-Active Agents.”)

C. ENCAPSULATION PRODUCTS:

1. Encapsulation materials shall be the penetrating type and conform with the following characteristics:

    a. Encapsulants should not be solvent-based or utilize a vehicle consisting of hydrocarbons.
    b. Encapsulants shall be non-flammable.

D. ENCLOSURE:

1. Enclosure materials shall be fire-retardant and conform to the applicable local fire codes.

2. The enclosures shall be constructed of materials such that when the enclosure is completed there is limited potential for impact damage to the enclosure and no potential for fiber release.

2.02 EQUIPMENT:

A. GENERAL (all abatement projects):

1. A sufficient quantity of negative pressure ventilation units equipped with HEPA filtration and operated in accordance with ANSI 29.2 79 (local exhaust ventilation requirements) and EPA guidance document EPA 560/5 83-002 Guidance for Controlling Friable Asbestos-Containing Materials in Buildings Appendix F: Recommended Specifications and operating procedures for the use of negative pressure systems for asbestos abatement shall be utilized so as to provide one work place air change every 15 minutes.
2. To calculate total air flow requirement:
   Total ft^3/min = $\frac{\text{Vol. of work area (in } ft^3\text{)}}{\text{15 min}}$
   To calculate the number of units needed for the abatement:
   Number of units needed = $\frac{\text{[Total } ft^3\text{/min]}}{\text{[Capacity of unit in } ft^3\text{/min x 70\%]}}$
   If air-supplied respirators are utilized, estimate the volume of supplied air, and add to workplace air volume when calculating ventilation requirements. For mini-enclosures and glove bags, a HEPA filtered vacuum system may be utilized to provide negative air pressure. Enough air shall always be exhausted to create a minimum pressure of -0.02 inches of water within the enclosure with respect to outside the enclosure.

3. Contractor shall install and maintain a continuous read strip chart, or similar digital recording differential pressure meter (manometer).

   a. Adhere strictly to manufacturer's recommendations for calibration of manometer.
   b. The manometer must be equipped with an audible system programmed to sound if pressure within the enclosure in respect to pressure outside the enclosure drops to -0.01 inches of water or lower.

4. Type "C" air supplied respirators operated in the pressure demand mode with full face pieces and HEPA-filtered escape cylinders are required by WISHA for negative pressure containment abatement work until the successful completion of final clearance air monitoring. Powered air purifying respirators may be utilized for negative pressure containment work as applicable under Washington Department of Occupational Safety and Health Directive 23.90. Spectacle kits and eyeglasses must be provided for employees who wear glasses and who must wear full-face piece respirators. Respirators shall be provided that have been tested and approved by the National Institute of Occupational Safety and Health for use in asbestos contaminated atmospheres.
5. Compressed air systems shall be designed to provide air volumes and pressures to accommodate respirator manufacturer's specifications. The compressed air systems shall have a receiver of adequate capacity to allow escape of all respirator

wearers from contaminated areas in the event of compressor failure. Compressors must meet the requirements of 29 CFR 1910.134(d). Compressors must have an in-line carbon monoxide monitor, and periodic inspection of the carbon monoxide monitor must be evidenced. Documentation of adequacy of compressed air systems/respiratory protection system must always be retained onsite. This documentation will include a list of compatible components with the maximum number and type of respirators that may be used with systems providing air of sufficient quality (Grade D breathing air as described in Compressed Gas Association Commodity Specifications G 7.1.)

a. At least two (2) dedicated air lines and respirators shall always be available to the Owner and/or Owner's representative or regulatory agency personnel. Contractor shall provide clean respirators in good repair for the Owner and/or Owner's representative or regulatory agency personnel's use.

6. Full body disposable protective clothing, including head, body, and foot coverings (unless using footwear as described in 2.02 A 8) consisting of material impenetrable by asbestos fibers (Tyvek or equivalent) shall be provided to all workers and authorized visitors in sizes adequate to accommodate movement without tearing.
7. Additional safety and fall protection equipment (e.g., hard hats meeting the requirements of ANSI Standard Z89.1 2009, eye protection meeting the requirements of ANSI Standard Z87.1 2003, safety shoes meeting the requirements of ANSI Standard Z41.1 1991, disposable PVC gloves) as necessary shall be provided to all workers and authorized visitors.
8. Non-skid footwear shall be provided to all abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
9. Only single-use, disposable towels and clothing will be allowed.
10. A sufficient supply of disposable mops, rags and sponges for work area decontamination shall be available.
11. For mini-enclosures and glove bags, a HEPA-filtered vacuum system shall be utilized to provide negative air pressure where applicable.

B. Scaffolding:

1. Any scaffolding used must be cleaned with no visible debris prior to bringing scaffolding onsite and completely free of debris during and after installation.
2. Follow all manufacturer recommendations and all applicable regulations in the set-up, use and teardown of all scaffolding used.
3. The Contractor's designated competent person shall be onsite during all scaffolding set-up, use and teardown.

PART 3 - EXECUTION

3.01 INSPECTIONS:

A. Pre-abatement:

1. The abatement work shall not begin until:

a. The Contractor and the Owner and/or Owner's representative have inspected the site to ensure that work can begin.
b. Negative pressure ventilation and supplied air systems, if used, are functioning adequately. Contractor must test all systems.
c. All required pre-work submittals, notifications, postings, and permits have been provided and are satisfactory to the Owner and/or Owner's representative.
d. All equipment for abatement cleanup and disposal is on hand.
e. All worker and supervisor training, certification and medical monitoring are current, and documentation is available on the job site.

B. Throughout the Project: The Contractor's competent person shall perform daily inspections of the site. The Owner and/or Owner's representative may perform routine inspections of the site to assure compliance with applicable regulations and the project plans and specifications. The Contractor's competent person must generate a written daily report.

C. Post-Abatement: The Clearance process is discussed in Paragraph 3.8 of this section.

3.02 SITE SECURITY:

A. The work area is to be restricted only to authorized, trained, and protected personnel. These may include the Contractor's employees; employees of subcontractors; and Owner and/or Owner's representative employees; federal, state, and local inspectors and other authorized or designated individuals. A list of authorized personnel shall be established by the Contractor prior to job start and posted as directed by these specifications. Except for emergency response personnel, the Contractor shall approve unannounced visitors not listed above prior to project area entry.

B. For projects requiring the use of a negative pressure enclosure, a logbook shall be maintained in the clean room area of the worker decontamination system. Everyone who enters the work area must sign in, recording: name, affiliation (Contractor, regulatory agency, etc.), work phone number, purpose of entry: acknowledge existence, review and understanding of the project's emergency contingency plan and time in and time out for each entry. Contractor shall be responsible for site security during abatement operations.

3.03 EMERGENCY PLANNING:

A. Emergency contingency plans shall be developed by the Contractor prior to initiation of any work. These plans shall be a component of the Contractor's Health and Safety Plan.

B. Emergency planning shall include consideration of containment collapse (through negative pressure pull-down) or breach (hit, cut or torn by), fire explosion, toxic atmosphere, electrical hazards, slips, trips and falls, confined spaces and heat related injury. Written procedures shall be developed and employee training in these procedures shall be provided and documented. Emergency planning shall include procedures to follow in the event of power disruptions during work in a negative air enclosure.

C. Employees shall be trained in evacuation procedures in the event of workplace emergencies.

1. For non-life-threatening situations - employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers if necessary, before exiting the workplace to obtain proper medical treatment.
2. For a life-threatening injury or illness, measures to stabilize the injured worker, remove them from the workplace and secure proper medical treatment shall take priority over worker decontamination.

D. Telephone numbers of all emergency response personnel shall be prominently posted in the clean room, adjacent to the containment in the project area.

3.04 PERSONNEL PROTECTION REQUIREMENTS:

A. Training: All personnel accomplishing asbestos abatement shall be the bearer of current "Certified Asbestos Worker Certificate" issued by the Washington State Department of Labor and Industries.

1. Special onsite training specific to equipment and procedures unique to this job site shall be performed as required.

B. Safety Meeting: The Contractor shall conduct a safety meeting at the beginning of the project and weekly thereafter. Topics to be discussed include, but are not limited to: emergency exiting routes and procedures, location of telephone and emergency numbers, fire extinguisher locations, first aid kit, special precautions for toxic or hazardous materials (MSDS information), protective equipment, scaffolding procedures, proper use of ladders, electrical safety, previous week's air sample results, etc. All attendees shall sign an acknowledgment of attendance.

C. Protective Clothing: Provide protective equipment to all workers in the work area per paragraph 2.2.

3.05 PREPARATION OF THE WORK AREA:

A. Post barrier tape and caution signs meeting the specifications of WISHA Chapter 296 62 07711 at the locations and approaches to a location where airborne concentrations of asbestos may be expected to exceed the pre-abatement concentration. Signs shall be posted at a distance sufficiently far enough away from the work area to permit an employee to read the sign and take the necessary protective measures to avoid exposure. Additional signs may need to be posted following construction of workplace enclosures or barriers. Placement of these signs will be behind the construction barrier walls erected by the Contractor and shall not be placed in a location visible to the public outside of the project area.

B. All conduit joints, junction boxes, motor connections, motors, conveyors, control panels and associated equipment in the work areas shall be protected from amended water.

All wire in conduit that passes through the work area shall always remain energized, however the Contractor is responsible for all electrical safety.

C. Pre-clean, remove furnishings and install drop cloths using HEPA filtered vacuums or wet cleaning methods as appropriate. Do not use methods that would raise dust such as dry sweeping or vacuuming with equipment not equipped with HEPA filters. Do not disturb asbestos-containing materials during the pre-cleaning phase.

D. Remove from the work area all objects that are movable to protect them from potential asbestos contamination.

3.06 GENERAL REMOVAL PROCEDURES:

A. Wet all asbestos containing material with amended water solution using equipment capable of providing a fine spray mist. Avoid knocking the material loose during the wetting operation. Saturate the material to substrate prior to removal; however, do not allow excessive water to accumulate in the work area. Keep all removed material saturated until it can be containerized for disposal. Maintain a high humidity in the barrier or enclosure throughout the abatement period by misting or spraying to ensure material saturation and reduce the potential for elevated airborne concentrations. Wetting procedures are not equally effective on all types of asbestos-containing materials. Nonetheless, they shall be used in all cases.

B. Double bag all waste material prior to removal from the enclosure system or immediately upon removal of the barrier (glove bag).

C. The work area shall be cleaned of all ACM prior to the visual inspection by the Owner and/or Owner's representative. If any accumulation of residue is observed, it will be assumed to be asbestos. Re-cleaning may be required, at no additional cost to the Owner, until all suspect material is removed. Re-cleaning and inspection will continue until no visible suspect material remains. After the work area passes the visual inspection, the Contractor shall perform encapsulation of all cleaned surfaces.

D. Refer to Paragraph 3.08 of this specification for work area clearance process.

3.07 NEGATIVE PRESSURE ENCLOSURE:

A. Prepare work area as indicated in Paragraph 2.01, this section.

B. Verify shut down and lock out all heating, cooling, and air conditioning system (HVAC) components that are in, supply, or pass through the containment area, if possible. Seal all ducts and smoke test the containment before beginning abatement work within the enclosure.

C. Pre-clean all fixed objects in the containment area using HEPA filtered vacuums and/or wet cleaning techniques as appropriate. Careful attention must be paid to machinery bind grills or gratings where access may be difficult, but contamination significant. Pay particular attention to wall, floor, and ceiling penetrations behind fixed items. After pre-

cleaning, enclose fixed objects in 6-mil polyethylene sheeting and seal securely in place with tape.

D. Seal off all windows, doorways, elevator openings, corridor entrances, drains, ducts, grills, grates, diffusers and all other openings between the containment area and uncontaminated areas outside of the containment area including the outside of the building, tunnels, and crawl spaces with 6 mil polyethylene sheeting and tape.

E. Cover floors in the containment area with polyethylene sheeting as follows:

1. Seal all floor drains and other floor openings in area with 6 mil sheeting and duct tape.
2. Plastic shall be sized to minimize seams. If the floor area necessitates seams, those on successive layers of sheeting shall be staggered to reduce the potential for water to penetrate to the flooring material. A distance of at least 6 feet between seams is required. Do not locate seams at wall/floor joints or cracks in the concrete flooring.
3. Floor sheeting shall extend to at least 12 inches up the sidewalls of the containment area.
4. Sheeting shall be installed in a fashion to prevent slippage between successive layers of material.

F. Clearly identify and maintain emergency and fire exits from the work area.

G. Cover walls in the containment area with polyethylene sheeting as follows:

1. Seal all opening in wall with critical barriers with 6 mil polyethylene sheeting and duct tape. Ensure airtight seal.
2. Each wall surface shall be covered with two (2) layers of 6 mil polyethylene sheeting.
3. Plastic shall be sized to minimize seams. Seams shall be staggered and separated by a distance of at least 6 feet.
4. Wall sheeting shall overlap floor sheeting by at least 12 inches beyond the wall/floor joint to provide a better seal against water damage and for negative pressure.
5. Install two or more transparent plastic viewing ports in the walls of the enclosure in such a manner to allow unobstructed viewing of all components within the enclosure, which are involved in the project. Existing windows shall be utilized for viewing ports as needed. Movable curtains on the outside shall cover viewing ports.

H. Worker Decontamination Facility:

1. Worker decontamination enclosure systems shall be provided for workers entering or exiting the containment area. The worker decontamination shall consist of a clean change room, a shower, and an equipment room, each separated from each other and from the containment area by curtained doorways. The decontamination unit shall be constructed of metal, wood, or plastic framing systems. A worker decontamination facility is required for any Class I asbestos work involving greater than 25 linear feet or 10 square feet.

2. The worker decontamination enclosure systems constructed at the work site shall utilize 6 mil opaque black or white polyethylene sheeting or other acceptable materials for privacy.
3. The worker decontamination facility should be constructed contiguous to the negative - pressure work area or regulated area for Class I work. Where construction contiguous to work area is not feasible, the decontamination facility shall be constructed with a polyethylene-lined tunnel connecting the decontamination facility to the work.
4. Entry to and exit from all material decontamination chambers and decontamination enclosure systems shall be through curtained doorways consisting of two (2) sheets of overlapping polyethylene sheeting. One sheet shall be secured at the top and left side, the other sheet at the top and right side. Both sheets shall have weights attached to the bottom to ensure that they hang straight and maintain a seal over the doorway when not in use. Doorway designs providing equivalent protection and acceptable to the Owner and/or Owner's Consultant may be utilized. Inverted T double sheet doorway with a flap door is also acceptable.
5. Clean room shall be sized to adequately accommodate the work crew. Benches shall be provided as well as storage for employees' street clothes. Shelves for storing respirators shall also be provided in this area. Clean work clothes (if required under disposables); clean disposable clothing, replacement filters for respirators, towels and other necessary items shall be provided in adequate supply at the clean room. A location for postings shall be provided in this area. Lighting, heat, and electricity shall be provided as necessary for comfort.

I. Air Pressure Differential:

1. Provide a fully operational negative air system within the work area and continuously maintain a pressure differential across work area enclosures of 0.02 inches of water column.
2. Provide fully operational negative pressure systems supplying a minimum of one air change every 15 minutes. Determine the volume in cubic feet of the work area by multiplying floor area by ceiling height. Determine total ventilation requirement in cubic feet per minute (CFM) for the work area by dividing this volume by the air change rate.
3. Provide a minimum of one back-up negative air for every four primary negative air units used. A minimum of one back-up negative air unit will be required if less than four primary units are used. The back-up negative air unit(s) shall be of equal capacity to primary unit(s).

J. Once constructed and reinforced as necessary with negative pressure ventilation units in operation as required, test enclosure for leakage utilizing smoke tubes. Repair or reconstruct as needed.

K. Clearly identify and maintain emergency and fire exits from the containment area.

L. Remove, clean, and enclose in polyethylene the ceiling mounted objects such as lights and other items that may interfere with the abatement process and were not previously cleaned and sealed off. Utilize localized spraying of amended water and/or HEPA vacuums to reduce fiber dispersal during the removal of these fixtures.

3.08 WORK AREA CLEARANCE

A. The abatement work is complete when the work area is visually clean, and the Contractor determines that the area is ready for the visual inspection process. The following work area clearance process shall apply to all work areas where Class I or II asbestos project work was completed, except for outdoor work, where clearance sampling is not required.

1. Following Contractor certification that work area is visually clean the Owner's Consultant will perform a visual inspection of the project area.
2. If deficiencies are encountered during the inspection, the Owner's Consultant shall create a punch list and forward to the Contractor.
3. Contractor shall resolve all punch list items and repeat the work area clearance process at no additional cost to the owner. The Owner will not be charged for the cleanup time, materials, air monitoring costs, or delay costs. Delays resulting from non-compliant visual inspections will not constitute an extension to the project time.
4. Upon receipt of visual clearance, the Contractor shall apply a lockdown type encapsulant to surfaces on which asbestos has been removed.

    a. In cases when negative pressure enclosures have been used, maintain operation of negative air system during the encapsulation process.
    b. Mix ratio of encapsulant shall be manufacturer's to recommendations.
    c. Apply encapsulant with airless sprayer on to substrate.

5. After encapsulation, the Contractor shall conduct final clearance sampling as per this section.
6. Clearance samples will be taken as follows. As determined by the Owner or Owner's representative on a case-by-case basis for work areas where Class I or Class II work has taken place, aggressive sampling may be required as shown in item 3.08 6. a. below.

    a. Before sampling pumps are started, the exhaust from forced air equipment (leaf blower with at least 1 horsepower electric motor) will be swept against the walls, ceilings, floors, ledges, and other surfaces in the room. This procedure will be continued for 1 minute per 1,000 square feet of area. Fans may be used to circulate air within work enclosure.
    b. Samples will be collected in areas subject to normal air circulation away from room corners, obstructed locations and sites near windows, doors or vents in areas coinciding with pre-abatement sample locations.
    c. The HEPA machines must be left running during the procedure.
    d. The Owner's Consultant may collect quality assurance final clearance air samples. Conflicts between Contractor's clearance air monitoring analytical results and Owner's Consultant QA/QC analytical results will be resolved as specified in 1.7 Air Monitoring.

B. General: The number and volume of air samples taken, and analytical methods used will be in accordance with the following schedule. Sample volumes given may vary depending upon the analytical instruments used.

C. In each work area after completion of all cleaning work, a minimum of one (1) sample and one lab blank will be taken at a flow rate of 1 to 10 liters per minute to give a fiber density of between 100 to 1,300 fibers/mm2 on the filter and analyzed as follows:

1. Analysis: Fibers on each filter will be measured using the NIOSH 7400 procedures. At least 1200 liters of air will be collected.
2. Release Criteria: Decontamination of the work area is complete when every clearance sample is equal or less than 0.01 fibers/cc or less than pre-abatement levels whichever is lower. If any sample exceeds 0.01 fibers/cc, then the decontamination is incomplete and re-cleaning is required.
3. The services of a testing laboratory will be employed by the Contractor to perform laboratory analysis of the air samples. Verbal laboratory results will be available within eight (8) hours of taking clearance samples. A complete record of all air monitoring tests and inspections will be furnished to the Owner and/or Owner's Consultant via the Contractor within 24 hours of sample collection.

D. Following review and acceptance of the Contractor and Owner's consultant's QA/QC final air clearance results, the Owner's consultant will complete the Certificate of Clearance form.

3.09 DISPOSAL PROCEDURES:

A. Shower water shall be drained, collected, and filtered through a system with at least a 5.0-micron particle size collection capability.

B. Sealed and labeled containers of asbestos containing waste shall be removed from the immediate project area and transported to the prearranged disposal location as the work progresses.

C. Labeling: Each bag of asbestos waste shall be pre-labeled in accordance with 29 CFR 1910.1200 (f) of OSHA's Hazard communication Standard as follows:

DANGER CONTAINS ASBESTOS FIBERS MAY CAUSE CANCER CAUSES DAMAGE TO LUNGS DO NOT BREATHE DUST AVOID CREATING DUST

In addition, a second pre-printed label must be present on each bag in accordance with 49 CFR Parts 171 and 172 of U.S. Department of Transportation regulation as follows:

RQ HAZARDOUS SUBSTANCE SOLID, NOS ORM-E, NA 9188 (ASBESTOS)

D. All demolition debris materials, including asbestos-containing materials, except those containing substances classified as hazardous or dangerous by controlling local, state, or federal regulatory agencies, shall upon their demolition became the property of the Contractor. All such material, including those containing hazardous or dangerous substances, shall be removed, and properly disposed of away from the site and on property not owned by the Owner.

E. Disposal must occur at an authorized site in accordance with regulatory requirements of PSCAA, Article 4, Regulation III and applicable state and local guidelines and regulations.

F. Waste shipment, waste manifest, and disposal records shall be delivered to the Owner and/or Owner's Consultant within 25 days of completion of the abatement work. This information shall document the pickup site and disposal site, the quantity of the asbestos waste and the type of containers used. The Contractor and the Disposal Site Operator shall sign waste manifest. If a separate hauler is employed, their name, address, telephone number and signature shall also appear on the manifest.

G. Transportation to the Landfill:

1. All transportation of asbestos containing waste material shall adhere to federal, state, and local regulations, including, but not limited to:

    a. Hazard material regulation 48 CFR parts 171.180.
    b. 49 CFR part 107.

H. Disposal at the Landfill:

1. Bags, drums, and components may be inspected, as they are off-loaded at the disposal site. Material in damaged containers shall be repacked in empty drums or bags, as necessary.
2. Waste containers shall be placed on the ground at the disposal site, not pushed, thrown, or dumped out of trucks.
3. Following the removal of all containerized waste, the truck cargo shall be decontaminated using HEPA vacuums or wet methods to meet the no visible residue criteria. Polyethylene sheeting shall be removed and discarded along with contaminated cleaning materials and protective clothing in bags or drums at the disposal site.

END OF SECTION

CERTIFICATE OF CLEARANCE

CONTRACTOR CERTIFICATION OF VISUAL INSPECTION

In accordance with Section 02 82 00, Paragraph 3.8 "Work Area Clearance", the Contractor's supervisor/competent person hereby certifies that he/she has visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found no dust, debris, or residue.

IDENTITY OF WORK AREA	QUANTITY REMOVED	DATE	TIME

COMPETENT PERSON	SIGNATURE	CERTIFICATE #	EXPIRATION

OWNER'S REPRESENTATIVE CERTIFICATION OF VISUAL INSPECTION

In accordance with Section 02 82 00, Paragraph 3.08 "Work Area Clearance" the Owner's Representative hereby certifies that they have visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and have found no dust, debris, or residue.

AHERA BUILDING INSPECTOR	SIGNATURE	CERTIFICATE NO.	EXPIRATION

IDENTITY OF WORK AREA	QUANTITY REMOVED

PASS FAIL

SEE PUNCHLIST

CONTRACTOR'S FINAL AIR CLEARANCE CERTIFICATION

The Contractor hereby certifies that he/she has conducted air clearance sampling (after en-capsulation) according to the specifications and this sampling is valid to the best of his/her knowledge and belief. Contractor must attach chain of custody and final laboratory results.

IDENTITY OF WORK AREA	AIR SAMPLE I.D. #	FLOW RATE	VOLUME

DATE	TIME	ANALYST	LABORATORY	RESULTS

AHERA BUILDING INSPECTOR APPROVAL FOR RE-OCCUPANCY / DEMOLITION

by: (Signature)_____date_____

PRINT NAME_____Certificate No._____Exp.date_____

SECTION 02 83 00

LEAD IN CONSTRUCTION

PART 1 - GENERAL

1.01 RELATED WORK DESCRIBED ELSEWHERE

A. The provisions and intent of the contract, including the General Conditions, Special Conditions and General Requirements apply to this work as if specified in this Section. Work related to this Section is described in:

1. Section 02 82 00 – Asbestos Abatement
2. Section 02 84 16 – Universal and other Regulated Waste Activities

1.02 DESCRIPTION OF WORK

A. General work items include, but are not necessarily limited to:

1. Paint coatings within the project buildings are assumed to contain detectable concentrations of lead at or above and below the United States Department of Housing and Urban Development (HUD) definition of lead-based paint (1.0 milligrams per square centimeter or equal to/greater than 0.5% by weight).
2. There is a potential for exposure to lead and lead dust during asbestos abatement and other restoration work. The Contractor is responsible for monitoring work activities and determining when work involves hazardous materials and conditions that require conformance with specified regulatory requirements. Applicable regulations regarding exposure to lead (WAC 296-155-176) apply to this project.
3. Waste Characterization and Recycling of Demolition Debris is the responsibility of the contractor.
4. See the Limited Hazardous Building Material Survey – City of Forest Park Lake Front Improvements Project, March 2024, prepared by EHS-International for site summary of the lead-containing materials identified and sampled in preparation for this project.

1.03 CODES AND REGULATIONS

A. Due to the potential health and environmental hazards associated with the work at this site as described in this section, the work shall be performed in compliance with the applicable provisions of the Washington Industrial Safety and Health Act, and the Washington State Hazardous Waste Management Act, as well as other applicable federal, state, and local codes and regulations governing hazardous materials and hazardous waste. The Contractor is fully responsible for planning and executing all the work under this Contract in a manner that meets or exceeds the requirements of the Washington Administrative Code (WAC 296-62-07521 and WAC 296-155-176) for

protecting the health and safety of employees, the public, and for protecting the environment.

B. The following regulations of the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), the U.S. Environmental Protection Agency (EPA) and applicable requirements of the State of Washington are pertinent to this work. Other applicable regulations not specifically identified herein also apply.

1. United States Department of Labor, Occupational and Health Administration (OSHA):

a.	29 CFR 1910	Occupational Safety and Health Standards
b.	29 CFR 1910.134	Respiratory Protection
c.	29 CFR 1910.1025	Lead
d.	29 CFR 1910.1200	Hazard Communication
e.	29 CFR 1910	Safety and Health Regulations for Construction
f.	29 CFR 1926.55	Gases, Vapors, Fumes, Dusts, and Mists
g.	29 CFR 1926.57	Ventilation
h.	29 CFR 1926.62 (with subpart D)	Lead Exposure in Construction; Interim Rule appendices A, B, C, and

2. United States Environmental Protection Agency:

a.	40 CFR 148	Hazardous Waste Injection Restrictions
b.	40 CFR 260	Hazardous Waste Management Systems: General
c.	40 CFR 261	Identification and Listing of Hazardous Waste
d.	40 CFR 262	Standards Applicable to Generators of Hazardous Waste
e.	40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
f.	40 CFR 264	Standards for Owners and Operators of Hazardous Waste, Treatment, Storage, and Disposal Facilities
g.	40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
h.	40 CFR 268	Land Disposal Restrictions
i.	40 CFR 745 Proposed	Lead; Requirements for Lead-based Paint Activities; Rule
j.	49 CFR 172	Hazardous Materials Tables and Hazardous Materials Communications Regulations
k.	49 CFR 178	Specifications for Packaging

3. National Fire Protection Association (NFPA):

a.	NFPA 701 and	(1996) Methods of Fire Test for Flame-Resistant Textiles Films

4. National Institute for Occupational Safety and Health (OSHA):

a.	NIOSH OSHA Booklet 3142	Lead in Construction

5. State Requirements: Washington State Requirements, and/or L&I rules which govern lead paint work or hauling, and disposal include but are not limited to:

    a. WAC 296-62 General Occupational Health Standards
    b. WAC 296-24 Safety Standards for Construction Work
    c. WAC 173-303, 304 Dangerous Waste Regulations, Minimum Functional Standards for Solid Waste Handling
    d. WAC 296-155-176 Occupational Health and Environmental Control; Lead

1.04 DEFINITIONS

A. Whenever the terms below occur in this Contract Document, they will have the meanings which follow:

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

    a. Certified by the American Board of Industrial Hygiene and have prior experience in the health and safety aspects of a lead hazard control work project.
    b. A professional engineer or certified safety professional with a minimum of three (3) years prior experience in industrial hygiene relating to lead hazard control work.

1.05 QUALITY ASSURANCE

A. The Contractor shall submit a work plan (pursuant to Paragraph 1.6 A of this Section) if work, other than heavy equipment general building demolition, will impact lead containing materials or if there is a potential for occupational exposure to lead above the action limit. The work plan will demonstrate that abatement, demolition, recycling, and disposal of lead-coated and lead containing building materials will be performed in a manner consistent with pertinent federal, state, and local regulation and this specification. The work plan will be submitted to the owner for review prior to the start of any lead related work.

B. The Owner or the Owner's Consultant will perform periodic observation of the site work to ensure that it is being performed in a manner consistent with the Contractor's reviewed work plan and this specification.

1.06 SUBMITTALS

A. Contractors shall provide complete submittals as specified below for review by the Owner's representative. If applicable, submittals should be provided in accordance with Section 01 33 00: Submittals.

B. Pre-Job Submittals: Lead Work Plan (General): Provide a site-specific work plan that demonstrates the methods by which handling and disposal of lead-containing coatings and building materials will be performed. The Owner realizes that this project may or may not involve actual "lead abatement," instead the project involves demolition of building components that have paint of varying lead concentrations. At a minimum, the work plan shall include:

1. A general description of work practices, engineering controls, air monitoring, and decontamination involving lead-containing coatings. Describe whether the job will involve removing lead paint, or demolition of materials containing lead.
2. Qualification / certification / training certificates and role of each contractor's personnel.
3. Qualifications of the proposed testing laboratory (to perform analysis of air and waste characterization samples).
4. Site inspection process logs / documents.
5. Procedures for personnel and equipment cleanup / decontamination.
6. Lead waste management and disposal / recycling plan including waste minimization efforts; container selection and labeling.
7. Qualification / certificates of lead waste transportation subcontractor.
8. Qualification / certification of lead waste disposal / recycle facilities.

C. Construction Phase submittals: Submit the following information daily (at the end of the work shift) to the Owner and Owner's representative or as designated during the pre-construction meeting.

1. Air and bulk sample data sheets and laboratory results including chain of custody and analytical results.
2. Negative Exposure Assessment Reports

a. Include laboratory analytical testing
b. Documentation of the work activities included in the NEA.

3. Supervisor or Superintendent daily inspection report.
4. Any additional waste characterization testing for waste streams or combination of waste streams other than those including in section 1.2 above.

D. Post Construction Submittals - At the completion of the contract, the Contractor shall provide a report of completion including:

1. All employee exposure monitoring information.
2. Documentation of final lead waste.
3. Documentation of final recycled waste streams.
4. Documentation of final lead waste transportation and disposition
5. Documentation of final recycled waste streams & quantities and locations of recycling facilities.
6. Certification that the work has been completed pursuant to this specification.

PART 2 - PRODUCTS

2.01 EQUIPMENT AND SUPPLIES

A. Provide a list and description of equipment and supplies necessary to support the work as described in the work plan. Equipment and supplies may include but are not limited to:

1. Chemicals to be used on-site including dust suppressants/wetting agents, fuels/lubricants, cleaning degreasing, and/or welding/cutting supplies.
2. Enclosure equipment (for dust control).
3. Fencing, barriers, and signs.
4. Demolition equipment.
5. Materials and debris hauling/moving equipment.
6. Material storage containers and supplies.
7. Decontamination equipment and supplies.
8. Protective clothing and respirators.
9. Labels, manifests, and other shipping documentation.
10. Release prevention equipment.
11. Field documentation logs/supplies; and,
12. Protective clothing, respirators, equipment and supplies necessary to support the work.

PART 3 - EXECUTION

3.01 WORK AREA PREPARATION

A. Perform the following preliminary steps to prepare the Work Areas prior to work impacting lead or lead-coated building materials:

1. Establish a Control Area that includes a perimeter sufficient to perform the work around each building or area that contains lead or lead-coated building materials. The control area shall also consist of the pathway for transport of any lead-contaminated material to a stockpile or storage receptacle if lead-containing debris is not immediately transported from the site. Provide and display caution signs, in clearly visible areas, at entrances indicating that hazardous material work is being conducted and that unauthorized persons should not enter. Signs shall be complying with WAC 296-155-176 regulations.
2. Emergency Procedures: Establish and post written emergency procedures within each Work Area, including emergency contact names and contact phone numbers, plans for medical emergencies, temporary loss of electrical power or water, and procedures for an emergency. Contractor is responsible for establishing and posting contingency procedures to all workers on site.
3. Health and Safety Briefing: Conduct a health and safety briefing prior to the start of work and weekly to discuss the health and safety plan, hazardous materials, hazardous work and other related items per the specified health and safety plan. More frequent briefings should be performed as required by project activities or changes in the work.
4. Log-in Sheet: Restrict access to work sites by maintaining a daily log of personnel entering Work Areas; including workers and other authorized personnel and their start/stop times.
5. Decontamination Unit: Prepare the decontamination unit for use at all entrances and exits from the Work Area as described in the approved work plan.

3.02 WORK PROCEDURE

A. General Procedures: Perform all work and comply with the safety and health provisions in the site-specific Health and Safety Plan. The work includes all measures necessary to adequately protect workers, authorized personnel, and the public from lead exposures during abatement and demolition activities.

B. Coordination of Work of all Trades: Coordinate the work of all trades to ensure that work is performed in accordance with the applicable regulations and that the control limits are maintained at all times both inside and outside the control area.

C. Access to Work Area: Access to work areas shall be through decontamination areas. Only the Contractor, subcontractors, authorized Owner personnel, project consultants, and regulatory personnel shall have access to the work area.

D. Means of Egress: Establish and maintain emergency and fire exits from the work area.

E. Always prevent dust generation to the maximum extent practicable. Provide hand wash stations at appropriate and approved locations for the duration of demolition.

F. The use of water shall be restricted to the smallest quantity necessary to minimize dust and to avoid the potential of contaminant migration through run-off or ponding. In no case shall liquids generated during building demolition come into contact with uncontaminated soils, storm drains, surfaces or conduits which may constitute a release to the environment.

G. Demolition Procedures: Perform general demolition or demolition required for hazardous material abatement in areas of lead-containing paints in accordance with approved Health & Safety Plans. Use procedures and equipment required to limit occupational and environmental exposure to lead when lead-containing paint is impacted or when building components are demolished. The procedures employed by the Contractor shall not create the potential for contaminating surrounding areas or materials with lead-containing coatings or dust. Dust generation shall be kept to a minimum. Dry scraping, dry sanding, or dry grinding on lead-containing paints or lead contaminated surfaces will not be permitted without a full enclosure.

H. All lead-coated demolition debris shall be handled, stored, and disposed or recycled to meet applicable federal, state, and local requirements.

I. Personnel and equipment decontamination shall occur whenever people or equipment leave the work site as described in the approved work plan. Decontamination waste shall be packaged, stored, labeled, and disposed of according to all applicable requirements at the cost of the Contractor. All contaminated equipment, tools or materials that cannot be decontaminated shall be stored and disposed of by the Contractor in accordance with all federal, state, and local regulations.

J. Grossly inadequate health, safety or environmental precautions on the part of the Contractor or the belief that the Contractor's personnel, the general public or the environment are or may be exposed to an immediate hazard, may be cause for the Owner to suspend the Contractor's site work and ask the Contractor's personnel to evacuate the hazard area. The Contractor shall not be compensated for such delays. The contractor is responsible for costs identified by the Owner as a consequence of the contractor’s actions.

K. The Owner or the Owner’s Consultant may inspect the Contractor's operations and work areas daily for job site cleanliness and conformance with the specifications. The Contractor shall locate any fuels, solvents, or lubricants in a common area in a manner that will prevent releases to the environment. Any hazardous materials shall be appropriately labeled with the generic name of the contents and the Contractor's name.

L. Waste Sampling: Contractor will be required to collect representative samples of demolition debris for analysis as required under WAC 173-303, Dangerous Waste Regulations, to determine appropriate disposal or recycling methods. Select materials that were tested and determined to have lead in the coating for sampling and submittal to an approved laboratory for Toxicity Characteristic Leachate Procedure (TCLP) testing.

3.03 SITE QUALITY CONTROL AND MONITORING

A. Site Inspection: While performing the work, the Contractor may be subject to on-site inspection by L&I/WISHA, OSHA, EPA/Ecology inspectors and/or local building or health officials. If found to be in violation of pertinent regulations, the Contractor shall cease all work immediately until the violation is resolved. Standby time required to resolve the violation shall be at the Contractor's expense. Complete sets of equipment (such as respirators and disposable clothing) that may be required for entry to the control

area shall be made available at all times by the Contractor to the Owner and/or agency inspectors for inspection of the control area. Such requests will only be made during working hours.

B. Quality Assurance

1. Restrict the spread of dust and debris from being distributed over the work area.
2. Area air quality monitoring and personnel monitoring shall be conducted throughout the work as appropriate.
3. Air Monitoring: Monitoring of airborne concentrations of lead shall be in accordance with WAC 296-115-176, and as specified herein. Air monitoring, testing, and reporting shall be performed in accordance with an Air Monitoring Plan prepared and signed by the Contractor's Industrial Hygienist. The plan shall include personal monitoring in accordance with regulatory requirements and area monitoring outside the lead control area.

    a. Submit results of air monitoring samples within 24 hours after the air samples were taken.
    b. Notify the Owner immediately of the corrective action taken if the exposure to lead is at or more than the action level of 30 micrograms per cubic meter of air outside of the lead control area.
    c. If the area air monitoring results are above the action level of 30 micrograms, the Owner shall have the option of stopping all work until the work procedures and lead hazard controls are revised to the Owner's satisfaction.

3.04 CLEAN-UP, TESTING AND DISPOSAL

A. Housekeeping: Housekeeping and clean-up procedures are essential tasks for contamination control. Maintain all surfaces throughout the area free of contaminated debris to the maximum extent practical. Restrict debris from being distributed over the general area. In all possible instances' workers shall clean-up their own areas. Equip personnel engaged in cleaning up scrap and demolition debris with necessary respiratory equipment and protective clothing.

B. Cleanup: Maintain surfaces of the lead control area as free of accumulation of paint chips and dust as practicable. Restrict the spread of dust and debris; keep waste from being distributed over the work area. The use of compressed air to clean up the area is strictly prohibited. At the end of each shift, clean the area of visible lead paint contamination by vacuuming with a HEPA-filtered vacuum cleaner, wet mopping the area, or cleanup by other appropriate means.

C. Testing of Demolition Debris: The Contractor will be required to collect representative sample(s) of the actual demolition debris stream for Toxicity Characteristic Leaching Procedure (TCLP) analysis as required under WAC 173-303, Dangerous Waste Regulations. The Owner's Consultant reserves the right to review sampling procedures and analytical data before disposal of demolition waste.

D. Disposal of Lead Demolition Waste: If any lead dangerous waste is identified the following requirements shall be met for the disposal of lead dangerous waste:

1. Collect lead dangerous waste, scrap, debris, bags, containers, equipment, and lead contaminated clothing that may produce airborne concentrations of lead particles. Label the containers in accordance with 29 CFR 1910.1025.
2. Handle, store, transport, and dispose of lead or lead dangerous waste in accordance with 40 CFR 260, 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265 and WAC 173-303. Comply with land disposal restriction notification requirements as required by 40 CFR 268.
3. The Transporter and Disposal Facility must each have an EPA identification number. The Contractor shall submit the name, address, and EPA Identification Number of the Transporter and Disposal Site to the Owner prior to the disposal of hazardous waste.

E. Disposal Documentation: Disposal documentation is required for all waste streams. At a minimum, provide a disposal receipt or manifest for all non-dangerous waste streams. For lead dangerous waste, if any is generated, submit written evidence that the hazardous waste treatment, storage, or disposal facility (TSD), or recycling facility is approved for lead dangerous waste disposal or recycling by the EPA and state or local regulatory agencies. Submit one (1) copy of the completed manifest, signed and dated by the initial transporter in accordance with 40 CFR 262. Final payment for the project shall not be made until all disposal documentation has been submitted and accepted by the Owner.

END OF SECTION

SECTION 02 84 16

UNIVERSAL & OTHER REGULATED WASTE ACTIVITIES

PART 1 - GENERAL

1.01 RELATED WORK DESCRIBED ELSEWHERE

A. The provisions and intent of the contract, including the General Conditions, Special Conditions and General Requirements apply to this work as if specified in this Section. Work related to this Section is described in:

1. Section 02 83 00 – Lead in Construction
2. Section 02 82 00 – Asbestos Abatement

1.02 DESCRIPTION OF WORK

A. The Contractor's employees involved with the removal, handling, transportation, or recycling of fluorescent light tubes, and fluorescent light bulbs, shall receive hazard communication training for mercury in accordance with WAC 296-901-140.

B. The Contractor shall supply all labor, materials, vehicles, services, insurance, special permits, and equipment necessary to remove and recycle fluorescent light tubes and compact fluorescent light bulbs and fixtures. The fluorescent tubes, and compact fluorescent light bulbs shall be packaged and transported to an Owner-approved recycling facility. The Contractor shall carry out the work in accordance with all applicable federal, state, and local regulations.

C. The work specified herein shall be the removal, transportation, and recycling of all fluorescent light tubes, and compact fluorescent light bulbs removed within the project area.

D. The work also includes removing and storing light tubes in a manner not to break tubes while other work is being performed in the area.

E. The work shall be conducted in accordance with all applicable federal, state, and local regulations and these specifications.

F. All required permits, certificates, registrations, or licenses shall be kept valid for the duration of the work addressed by the permit.

G. All shipping/receiving logs shall be legibly filled out in ink.

H. See Limited Hazardous Building Material Survey – City of Forest Park Lake Front Improvements Project, March 2024, prepared by EHS-International for a site summary of the universal wastes and other regulated materials that might need to be removed during the renovation work.

1.03 REFERENCE STANDARDS

A. General Requirements

1. All work under this Contract shall be done in strict accordance with all applicable regulations, standards and codes governing mercury and in accordance with best available technology and practice. This includes any other work, including trade work conducted in conjunction with the project.

B. Specific Standards

1. The most recent edition of any relevant regulation, standard, document, or code shall be in effect during the work, regardless of the effective date of this specification's governing contract. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be utilized.

a. United States Environmental Protection Agency (EPA)

1) Title 40 Code of Federal Regulations Part 61, Subparts A and M (Revised Subpart B) National Emission Standard for Asbestos.

b. State of Washington Department of Labor & Industries (L&I)

1) Chapter 296-24 Safety Standards,
2) Chapter 296-62 Occupational Health and Safety Regulations, including:
3) Chapter 296-62-071 - Respiratory Protection
4) Chapter 296-155 Construction Standards
5) Chapter 296-901-140 Hazard Communication

c. Washington State Department of Ecology (Ecology)

1) WAC 173-303, Dangerous Waste Regulations

d. Other guidelines, codes, or documents:

1) United States Department of Transportation (DOT) Hazardous Materials Regulations, Code of Federal Regulations Title 49.

1.04 DEFINITIONS

A. AIHA:American Industrial Hygiene Association
475 Wolf Ledges Parkway
Akron, OH 44311

B. ANSI:American National Standards Institute

C. ASTM: American Society for Testing and Materials

D. Authorized Visitor: Designated representatives of the Contractor, Owner or Owner's representative, and representatives of a regulatory or other agency having jurisdiction over the project.

E. Certified Industrial Hygienist (CIH): An industrial hygienist certified in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene.

F. Ecology: Washington State Department of Ecology

G. EPA: United States Environmental Protection Agency

H. HEPA Filter: A high efficiency particulate air filter capable of removing particles greater than 0.3 microns in diameter with 99.97% efficiency.

I. Lamps: Lamp, also referred to as "universal waste lamp", is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

J. L&I: Washington State Department of Labor & Industries
805 Plum Street, S. E. (HC-412)
Olympia, Washington 98504

K. NESHAP: The National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).

L. NIOSH: The National Institute for Occupational Safety and Health
Building "J" N.E., Room 3007
Atlanta, GA 30333

M. OSHA: The Occupational Safety and Health Administration
200 Constitution Avenue
Washington D.C. 20210

N. Ozone Depleting Substances or Equipment: Equipment containing CFCs or other refrigerants or cooling equipment that may be found throughout the building. Ozone depleting substances should be properly collected and disposed.

O. Polychlorinated Biphenyls (PCBs): PCBs as used in this specification shall mean the same as PCBs, PCB containing lighting ballast, and PCB container, as defined in 40 CFR 761, Section 3, Definitions.

P. Spill: Spill means both intentional and unintentional spills, leaks, and other uncontrolled discharges when the release results in any quantity of PCBs running off or about to run off the external surface of the equipment or other PCB source, as well as the contamination resulting from those releases.

Q. Universal Waste: Universal Waste means any of the following hazardous wastes that are managed under the universal waste requirements 40 CFR 273:

1. Batteries as described in Sec. 273.2 of this chapter.
2. Pesticides as described in Sec. 273.3 of this chapter.
3. Thermostats as described in Sec. 273.4 of this chapter; and
4. Lamps as described in Sec. 273.5 of this chapter.

R. WAC: Washington Administrative Code as enforced by the Washington State Department of Labor and Industries.

S. WISHA: Washington Industrial Safety and Health Act as enforced by the Washington State Department of Labor and Industries.

1.05 SUBMITTALS AND NOTICES

A. Contractors shall provide complete submittals as specified below for review by the Owner's representative. If applicable, submittals should be provided in accordance with Section 01 33 00: Submittals.

B. Pre-Construction submittals: Fluorescent Light Tubes, HID Lamps & Mercury Switches Work Plan (General): Include a detailed plan of the procedures proposed for use in complying with the requirements, including the following:

1. Work Area: General description of the preparation of the work area, setting barriers, arrangement for temporary services. Describe procedure for removing tubes, HID lamps, and mercury switches and how they will be packaged for transport offsite.
2. Handling of Tubes: General description of the proposed removal, handling methods, packaging for transport to recycle/disposal facility.
3. Submit name, location, and qualifications of hazardous materials transportation subcontractor.
4. Worker Protection: Description of safeguards to protect workers handling broken/leaking, tubes, bulbs, switches, and cleanup procedures.
5. PPE: Description of personal protective equipment to be worn by contractor's personnel and visitors.
6. Recordkeeping Procedures: For packaging, transportation, and recycling. Labeling procedures for fluorescent tube packaging.
7. Recycling/Disposal Site: Name and location of the recycling site.

C. Post Construction Submittals: PCB Ballasts and mercury-containing fluorescent light tubes, high intensity discharge lighting, and CFC Containing Materials – At the completion of the contract, the Contractor shall provide a report of completion including:

1. Any employee exposure monitoring information.
2. Hazardous waste cleanup information
3. Documentation of appropriate cleanup procedures for broken light tubes and/or leaking PCB ballasts.
4. Recycling certifications and waste manifests listing compact fluorescent bulbs, fluorescent light tubes, HID lighting, etc.
5. Certification that the work has been completed in accordance with the specifications.

1.06 RESPONSIBILITIES

A. Training

1. The Contractor shall be responsible for assuring the following training has been completed prior to the Commencement of Work:

a. Hazard communication for mercury in accordance WAC 296-901-140
b. Special on-site training on equipment and procedures unique to this job site shall be performed as required.
c. Training in emergency response and evacuation procedures.

1.07 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver all materials in good condition in the original packages, containers or bundles visibly / legibly bearing the name of the manufacturer and the brand name of the product.

B. Store all materials in a manner that will prevent their damage or contamination.

C. Damaged, deteriorating or previously used materials shall not be used and shall be removed from the worksite and disposed of properly.

1.08 SITE CONDITIONS

A. The removal area may have electrical transformers and other electrical equipment, domestic water and sewer lines, sprinkler lines, electrical and communication conduit with active wiring, HVAC piping and equipment located in the project area. The Contractor shall verify location of all equipment and protect as required.

PART 2 - PRODUCTS

2.01 PERSONAL PROTECTIVE EQUIPMENT

A. Respiratory Protection: All employees cleaning up broken fluorescent light tubes, HID lamps, mercury switches, or other universal wastes shall be provided with and be required to use adequate and appropriate respiratory protection in accordance with WAC 296-62, Part E.

1. For workers cleaning up broken fluorescent light tubes, HID lamps, and mercury switches, full body disposable protective clothing incorporating head, body and feet covering constructed of material such as Tyvek R (or equivalent) shall be provided in sufficient quantities and adequate sizes to accommodate movement without tearing, to all workers and authorized visitors.

B. Additional safety equipment (e.g., hard hats meeting the requirements of ANSI Standard Z89.1-1981, eye protection meeting the requirements of ANSI Standard Z87.1-1979, safety shoes meeting the requirements of ANSI Standard Z41.1-1967, and disposable

gloves) shall be provided as necessary to all workers and authorized visitors and shall be sized to fit the wearer.

2.02 REMOVAL EQUIPMENT

A. A sufficient supply of scaffolds, ladders, lifts, and hand tools (e.g., screwdrivers) shall be provided as needed.

B. Additional support equipment as needed.

2.03 PACKAGING, SUPPLIES AND MATERIALS

A. Fiberglass drums

B. Fluorescent light tube shipping boxes

C. Solvents, wetting solutions, Tyveks, rags etc. as necessary for cleanup of any broken light tubes.

PART 3 - EXECUTION

3.01 WORK PROCEDURE

A. Furnish labor, materials, services, and equipment necessary for the removal of PCB containing lighting ballasts, associated mercury-containing fluorescent lamps, and high intensity discharge (HID) lamps in accordance with local, state, or federal regulations. Do not expose PCBs to open flames or other high temperature sources since toxic decomposition by-products may be produced. Do not break mercury containing fluorescent lamps or high intensity discharge lamps.

B. Work Operations

1. Ensure that work operations or processes involving PCB or PCB-contaminated materials are conducted in accordance with 40 CFR 761, 40 CFR 262 40 CFR 263, and the applicable requirements of this section, including but not limited to:

    a. Obtaining suitable PCB and mercury-containing lamp storage sites.
    b. Notifying Owner or owner's representative prior to commencing the operation.
    c. Reporting leaks and spills to the Owner or owner's representative.
    d. Cleaning up spills.
    e. Inspecting PCB and PCB-contaminated items and waste containers for leaks and forwarding copies of inspection reports to the Owner or owner's representative.
    f. Maintaining inspection, inventory, and spill records.
    g. Ensuring that CFCs are recovered and disposed of by a qualified person.

3.02 PCB SPILL CLEANUP REQUIREMENTS

A. PCB Spills

1. Immediately report to the Owner or owner's representative any PCB spills.

B. PCB Spill Control Area

1. Rope off an area around the edges of a PCB leak or spill and post a "PCB Spill Authorized Personnel Only" caution sign. Immediately transfer leaking items to a drip pan or other container.

C. PCB Spill Cleanup

1. 40 CFR 761, subpart G. Initiate cleanup of spills as soon as possible, but no later than 24 hours of its discovery. Mop up the liquid with rags or other conventional absorbent. The spent absorbent shall be properly contained and disposed of as solid PCB waste.

D. Records and Certification

1. Document the cleanup with records of decontamination in accordance with 40 CFR 761, Section 125, Requirements for PCB Spill Cleanup. Provide test results of cleanup and certification of decontamination.

3.03 REMOVAL

A. Ballasts

1. As ballast are removed from the lighting fixture, inspect label on ballast. Ballasts without a "No PCB" label shall be assumed to contain PCBs and containerized and disposed of as required under paragraphs STORAGE FOR DISPOSAL and DISPOSAL.

B. Lighting Lamps

1. Remove lighting tubes/lamps from the lighting fixture and carefully place (unbroken) into appropriate containers (original transport boxes or equivalent). In the event of a lighting tube/lamp breaking, sweep and place waste in double plastic taped bags and dispose of as universal waste as specified herein.

3.04 STORAGE FOR DISPOSAL

A. Storage Containers for PCBs

1. 49 CFR 178. Store PCB in containers approved by DOT for PCB.

B. Storage Containers for lamps

1. Store mercury containing lamps in appropriate DOT containers. The boxes shall be stored and labeled for transport in accordance with 40 CFR 273.

C. Labeling of Waste Containers

1. Label with the following:

a. Date the item was placed in storage and the name of the cognizant activity/building.
b. "Caution Contains PCB," conforming to 40 CFR 761, CFR Subpart C. Affix labels to PCB waste containers.
c. Label mercury-containing lamp waste in accordance with 40 CFR 273. Affix labels to all lighting waste containers.

3.05 DISPOSAL

A. Dispose of universal wastes including PCB and mercury waste in accordance with EPA, DOT, and local regulations at a permitted site.

B. Identification Number

1. Federal regulations 40 CFR 761, and 40 CFR 263 require that generators, transporters, commercial storers, and disposers of PCB waste possess U.S. EPA identification numbers. The contractor shall verify that the activity has a U.S. EPA generator identification number for use on the Uniform Hazardous Waste manifest. If not, the contractor shall advise the activity that it must file and obtain an I.D. number with EPA prior to commencement of removal work. For mercury containing lamp removal, Federal regulations 40 CFR 273 require that large quantity handlers of Universal waste (LQHUW) must provide notification of universal waste management to the appropriate EPA Region (or state director in authorized states), obtain an EPA identification number, and retain for three years records of off-site shipments of universal waste. The contractor shall verify that the activity has a U.S. EPA generator identification number for use on the Universal Waste manifest. If not, the contractor shall advise the activity that it must file and obtain an I.D. number with EPA prior to commencement of removal work.

C. Transporter Certification

1. Comply with disposal and transportation requirements outlined in 40 CFR 761 and 40 CFR 263. Before transporting the PCB waste, sign, and date the manifest acknowledging acceptance of the PCB waste from the Owner or Owner's representative. Return a signed copy to the Owner or Owner's representative before leaving the job site. Ensure that the manifest always accompanies the PCB waste. Submit transporter certification of notification to EPA of their PCB waste activities (EPA Form 7710-53).
2. Certificate of Disposal and/or Recycling

a. 40 CFR 761. Certificate for the PCBs and PCB items disposed shall include:

1) The identity of the disposal and or recycling facility, by name, address, and EPA identification number.
2) The identity of the PCB waste affected by the Certificate of Disposal including reference to the manifest number for the shipment.
3) A statement certifying the fact of disposal and or recycling of the identified PCB waste, including the date(s) of disposal, and identifying the disposal process used.
4) A certification as defined in 40 CFR 761.

END OF SECTION

DIVISION 31

Earthwork

SECTION 31 25 00

EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.01 SUMMARY

A. The Contractor shall prepare and implement a Stormwater Pollution Prevention Plan in accordance with the King County Surface Water Design Manual, 2016 Work shall include, but not be limited to, the furnishing and delivery of required materials, installation and maintenance of pollution control measures, monitoring according to the Contract Documents.

1.02 REFERENCE STANDARDS

A. Lake Forest Park Municipal Code, Chapter 15.10.045

B. Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction, 2024 edition.

C. King County Roads Standards 2016.

D. King County Surface Water Design Manual 2016.

1.03 DURATION

A. Maintain erosion and sediment control measures needed to perform the work throughout the life of the contract, including periods when construction activities are reduced or shut down.

1.04 SUBMITTALS

A. The following shall be submitted:

1. Manufacturer's literature and test results on erosion control materials.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Materials for erosion control measures shall be in accordance with the King County Surface Water Design Manual, WSDOT Standard Specifications and the Contract Documents.

PART 3 - EXECUTION

3.01 GENERAL

A. During construction, the runoff of stormwater and wastewater flows shall be

controlled and treated to minimize water quality impacts. The Contractor shall plan and execute the work in a manner which protects the project, and downstream systems. Runoff from undisturbed areas shall be diverted from areas of construction activity by utilizing drainage ways as much as possible. Where this is not possible and as practicable, diversion dikes and swales shall be constructed so runoff from undisturbed areas will not be contaminated by construction activity.

B. The Contractor shall install and maintain the controls specified in the Contract Documents for the duration of the project.

3.02 WATTLES

A. Wherever necessary to improve stormwater quality and reduce sediment transport, wattles may be installed. Minimize disturbance of native soils and vegetation when installing the wattles. Installed as shown in the plans for wattles to function. Monitor the condition of the wattles and remove accumulated sediments when sediment depth reaches 6 inches. Keep the wattles in good condition, and replace wattle if fabric becomes clogged and causes flow channelization parallel to wattle. Monitoring shall consist of daily inspections during periods of precipitation or snow melt, otherwise, weekly.

3.03 SITE RESTORATION

A. As soon as practical after completion of a portion of the work, or when a work or waste area is no longer required, commence site restoration and permanent erosion control. Temporary erosion and sedimentation control methods shall be kept in effect until the permanent erosion control is established, and the Owner's Representative approves removal of temporary facilities.

END OF SECTION

DIVISION 32

Exterior Improvements

SECTION 32 31 13

CHAIN LINK FENCES AND GATES

PART 1 - GENERAL

1.01 SUMMARY

A. This section shall cover the requirements for permanent fencing along the frontage of the project limits as shown in the Contract Drawings.

B. Provide all labor and furnish materials for chain link fences and gates as shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

1.02 SUBMITTALS

A. Shop Drawings for chain link fence, locking vehicle swing gates, and pedestrian gate with one-way emergency exit.

1. Include plans, elevations, sections, details, and attachments to existing fence.

B. Product certificates.

C. Product test reports.

D. Sample warranty.

1.03 QUALITY ASSURANCE

A. Fence framework, fabric, and related accessories to be a complete system as specified herein.

1.04 WARRANTY

A. Installer agrees to repair or replace components of chain-link fences and gates that fail in materials or workmanship within specified warranty period.

B. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 GENERAL

A. Provide fencing and gates with an overall height of 72 inches above grade.

2.02 FABRIC

A. Two-inch diamond weave mesh of extruded 9-gauge vinyl (PVC) coated steel wire conforming to Standard Specifications ASTM A-491.

2.03 FRAMEWORK

A. Roll formed steel sections with 2.0 ounces of hot-dipped zinc coating conforming to ASTM A-123, or Type I steel pipe, or Type II steel pipe.

1. Type I: Schedule 40 steel pipe with 2.0 ounces of hot-dipped zinc coating conforming to ASTM A-120.

2. Type II: Pipe manufactured from steel conforming to ASTM A-569, cold formed, high frequency welded, and having a minimum yield strength of 50,000 psi. External surface triple coated with l.0 ounce +0.1 ounce of zinc per square foot, 30 +15 micrograms of chromate per square inch and 0.5 0.2 mils of clear cross linked polyurethane. Internal surface coated, after welding, with a zinc-rich based organic coating having a 91 percent zinc powder loading capable of providing galvanic protection.

B. Line Posts

1. 1- 5/8-inch x 1- 7/8-inch roll formed steel C-section weighing 2.28 pounds per foot, or 2-1/2-inch O.D. Type I steel pipe weighing 3.65 pounds per foot, or 2-1/2-inch O.D. Type II steel pipe weighing 3.12 pounds per foot.

C. Top and brace rails

1. 1- 5/8-inch x 1-1/4- inch roll formed steel C-section weighing 1.37 pounds per foot, or 1-5/8-inch O.D. Type I steel pipe weighing 2.27 pounds per foot, or 1- 5/8-inch O.D. Type II steel pipe weighing 1.84 pounds per foot.

D. Terminal posts and gate posts for single swing gates or one leaf of double gates up to 6 feet leaf width

1. 3-1/2-inch x 3-1/2-inch roll formed steel section weighing 4.85 pounds per foot, or 3-inch O.D. Type I steel pipe weighing 5.79 pounds per foot, or 3-inch O.D. Type II steel pipe weighing 4.64 pounds per foot.

E. Gate posts for single swing gates or one leaf of double gates with leaf width over 6 feet to 13 feet:

1. 4-inch O.D. Type I steel pipe weighing 9.11 pounds per foot, or 3-1/2-inch O.D. Type II steel pipe weighing 5.71 pounds per foot

F. Gate posts for single swing gates or one leaf of double gates with leaf width over 13 feet to 18 feet.

1. 6-5/8-inch O.D. Type I steel pipe weighing 18.97 pounds per foot.

G. Gate posts for single swing gates or one leaf of double gates with leaf width over

18 feet.

1. 8-5/8-inch O.D. Type I steel pipe weighing 28.55 pounds per foot.

2.04 GATES

A. Frame assembly of 2-inch O.D. Type I or Type II steel pipe with welded or steel fitted corners. Provide braces and trusses where necessary.

B. Heavy duty hinges and positive type latching device suitable for padlocking.

C. Center plunger rod with double latch and catch, and semi-automatic outer catches for drive gates.

D. Pedestrian gate shall have a one-way access latch for emergency exit to road.

E. Fabric to match fence.

2.05 FITTINGS

A. Pressed steel, cast iron or cast aluminum post caps to exclude moisture.

B. Pressed steel, cast iron or cast aluminum rail and brace ends.

C. 6-inch minimum length top rail couplings at maximum 20 feet on centers.

D. Steel tension bars, tension bands, and brace bands.

E. 3/8-inch steel truss rods with turnbuckles.

1. End, corner, pull and gate posts braced and trussed to line posts.

F. 7-gauge aluminum coated steel tension wire conforming to Standard Specification ASTM A-824.

G. 9-gauge aluminum tie wires spaced at maximum of 24 inches.

H. 11-gauge steel wire hog rings with minimum zinc coating of 0.80 ounces per square feet of wire surface.

I. Pressed steel, cast iron or cast aluminum barbed wire arms with clips or slots for attaching three strands of barbed wire.

1. Arms set outward at 45 degrees and capable of supporting a 250-pound load at outer barbed wire connecting point without causing permanent deflection.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Installation by experienced fence erectors.

B. Conform to ASTM F-567.

C. Space line posts at even intervals not exceeding 10 feet.

D. Set all posts to a minimum depth of 36 inches in a concrete foundation.

1. 10-inch diameter foundation for line posts.

2. 12-inch diameter foundation for terminal posts.

E. Cast steel pipe sleeve recessed in 18-inch by 18-inch by 6-inch thick concrete pad for retaining gate in closed position.

END OF SECTION