

DIVISION 1 GENERAL REQUIREMENTS**SECTION 1-01 DEFINITIONS AND TERMS****1-01.1 GENERAL**

Standard acronyms, abbreviations, definitions, and symbols common to the fields of engineering and construction are used throughout the Contract without further explanation. Acronyms and definitions often used in the Contract can be found in Sections 1-01.2 and 1-01.3. Often used abbreviations are found in Standard Plan no. 002. Additional acronyms, definitions, and symbols may be found in the Project Manual or Drawings. Welding symbols are defined in the current edition of the American Welding Society Structural Welding Code.

When used in the Contract, the acronyms listed in Section 1-01.2(1) and terms defined in Section 1-01.3 (or pronouns used in place of acronyms and terms) have the indicated meanings unless the context implies otherwise.

Words in the plural include singular and vice versa.

Words of a particular gender include any gender.

1-01.2 ABBREVIATIONS**1-01.2(1) ASSOCIATIONS AND MISCELLANEOUS**

The following standard acronyms are used throughout the Bid Documents:

A2LA	American Association for Laboratory Accreditation
AAA	American Arbitration Association
AAN	American Association of Nurserymen
AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACIL	American Council of Independence Laboratories
ADA	Americans with Disabilities Act
AGA	American Gas Association
AGC	Associated General Contractors of America
ASHERA	Asbestos Hazard Emergency Response Act
AI	Asphalt Institute
AIA	American Institute of Architects
AIHA	American Industrial Hygiene Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ALSC	American Lumber Standards Committee
ANSI	American National Standards Institute
APA	American Plywood Association
API	American Petroleum Institute
APWA	American Public Works Association
ARA	American Railway Association
AREMA	American Railroad Engineering and Maintenance-of-Way Association
ARTBA	American Road and Transportation Builders Association
ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASLA	American Society of Landscape Architects
ASME	American Society of Mechanical Engineers
ASNS	American Standard for Nursery Stock
ASNT	American Society for Non-Destructive Testing
ASSE	American Society of Sanitary Engineering
ASTM	American Society for Testing and Materials
AWCM	Arborist Wood Chip Mulch
AWPA	American Wood Preservers' Association
AWS	American Welding Society
AWWA	American Water Works Association
BMP	Best Management Practice
BR	Bridge Replacement and Redevelopment Program
CARB	California Air Research Board
CBD	Central Business District
CBE	Combination Business Enterprise
CCTV	Closed-Circuit Television
CDBG	Community Development Block Grant
CDF	Controlled Density Fill
CESCL	Certified Erosion and Sediment Control Lead

CFR	Code of Federal Regulations
CLI	Chain Link Institute
CPCS	City Purchasing and Contracting Services
CPESC	Certified Professional in Erosion and Sediment Control
CPM	Critical Path Method
CRAB	County Road Administration Board
CRSI	Concrete Reinforcing Steel Institute
CRT	Controlled Releasing Terminal
CSECP	Construction Stormwater and Erosion Control Plan
CSI	Construction Specifications Institute
DBE	Disadvantaged Business Enterprise
DBH	Diameter at Breast Height
DBRA	Davis-Bacon and Related Acts
DIPRA	Ductile Iron Pipe Research Association
DPD	Seattle Department of Planning and Development
EEI	Edison Electric Institute
EEO	Equal Employment Opportunity
EPA	Environmental Protection Agency
ESCBMP	Erosion and Sedimentation Control Best Management Practices
ESD	Employment Security Department
FAS	Department of Finance and Administrative Services
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FSS	Federal Specifications and Standards, General Services Administration
FTA	Federal Transit Administration
HPMA	Hardwood Plywood Manufacturers Association
HUD	United States Department of Housing and Urban Development
IAPMO	International Association of Plumbers and Mechanical Officials
ICEA	Insulated Cable Engineers Association
ICOR	Interagency Commission on Outdoor Recreation
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineers' Association
ISA	International Society of Arboriculture
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation Systems
KCM	King County METRO
LED	Light Emitting Diode
LPI	Lighting Protection Institute
MBE	Minority Business Enterprise
METROKC	King County Department of Transportation
MSDS	Material Safety Data Sheet
MTCA	Washington Model Toxics Control Act
MSHA	Mine Safety and Health Act
MUTCD	Manual on Uniform Traffic Control Devices
MWBE	Minority and Women Business Enterprise
NACE	National Association of Corrosion Engineers
NAPA	National Asphalt Pavement Association
NCMA	National Concrete Masonry Association
NCSPA	National Corrugated Steel Pipe Association
NEC	National Electrical Code
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturer's Association
NEPA	National Environmental Policy Act
NESC	National Electrical Safety Code
NETA	International Electric Testing Association
NFPA	National Fire Protection Association
NFPA	National Forest Products Association
NHS	National Highway System
NPCA	National Precast Concrete Association
NPDES	National Pollution Discharge Elimination System Permit
NRMCA	National Ready Mix Concrete Association
NRCA	National Roofing Contractors Association
NSF	National Sanitation Foundation

NTCIP	National Transportation Communication for ITS Protocol
NTP	Notice to Proceed
NTPEP	National Transportation Product Evaluation Program
OMWBE	Office of Minority and Women's Business Enterprises
OSHA	Occupational Safety and Health Administration
PACP	Pipeline Assessment and Certification Program
PCA	Portland Cement Association
PDF	Portable Document Format
P/PCI	Precast/Prestressed Concrete Institute
PORT	Port of Seattle
PPI	Plastic Pipe Institute
PSCAA	Puget Sound Clean Air Agency
PW	Public Works
RCW	Revised Code of Washington
REA	Rural Electrification Association
ROW	Right of Way
RRP	Railway-Highway Grade Crossing Program
SCADA	Supervisory Control And Data Acquisition
SAC	Washington State Apprenticeship and Training Council
SAE	Society of Automotive Engineers
SCS	Soil Conservation Service
SCL	Seattle City Light
SDOT	Seattle Department of Transportation
SEPA	State Environmental Policy Act
SKCDPH	Seattle-King County Department of Public Health
SMC	Seattle Municipal Code
SP	Spill Plan
SPP	Serial Port Protocol
SPR	Seattle Parks and Recreation
SPU	Seattle Public Utilities
SSPC	Steel Structures Painting Council
STA	Seal of Testing Insurance
STCM	Seattle Traffic Control Manual
SWPPP	Stormwater Pollution Prevention Plan
TCM	Traffic Control Manager
TCP	Traffic Control Plan
TCS	Traffic Control Supervisor
TDP	Temporary Discharge Plan
TVSPP	Tree, Vegetation and Soil Protection Plan
UBI	Unified Business Identifier
UL	Underwriters Laboratory
UMTA	Urban Mass Transit Administration
USACE	United States Army Corps of Engineers
USCGS	United States Coastal and Geodetic Survey
USDA	United States Department of Agriculture
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
WAC	Washington Administrative Code
WACA	Washington Aggregates and Concrete Association
WALP	Washington Association of Landscape Professionals
WAQTC	Western Alliance for Quality Transportation Construction
WBE	Women's Business Enterprise
WCLIB	West Coast Lumber Inspection Bureau
WISHA	Washington Industrial Safety and Health Administration
WMBE	Women or Minority Business Enterprise
WRI	Wire Reinforcement Institute
WSATC	Washington State Apprenticeship and Training Council
WSDOE	Washington State Department of Ecology
WSDOT	Washington State Department of Transportation
WSDSHS	Washington State Department of Social and Health Services
WSEM	Washington State Energy Management
WWPA	Western Wood Products Association

1-01.2(2) BID ITEMS OF WORK AND UNITS OF MEASUREMENT

Standard abbreviations are included on Standard Plan No. 002. Standard symbols are included on Standard Plan No. 003. When abbreviations are used in the Bid Form to denote Bid items of work and units of measurement, each

abbreviated term shall have the meaning specified for it as noted in the subparagraph immediately above unless a Bid item measurement or payment description specifies another meaning.

1-01.3 DEFINITIONS

As used in this Contract, the terms listed below are defined as indicated. Unless the Contract specifically indicates otherwise, the definitions of electrical and electronic abbreviations, terms and phrases used in the Contract shall be those contained in the official edition of the IEEE Dictionary of Electrical and Electronic Terms.

Definitions for street designations and classifications can be found in the current edition of Seattle's Rights of Way Improvements Manual. The ROWIM applies solely to street rights-of-way and does not apply to rights of way dedicated solely for utility purposes.

ADDENDUM

A written or graphic document issued to all Bidders prior to the Bid opening and identified as an Addendum, which modifies or clarifies the Bid Documents and becomes part of the Contract.

ADDITIVE

A supplemental unit of Work or group of Bid items, identified separately in the Bid, which may be awarded at the discretion of the Owner in addition to the Base Bid.

ADVERTISEMENT FOR BIDS

A public notice published in the official newspaper, designated by The City of Seattle, and/or on the internet, soliciting Bids for the Work.

AFFIDAVIT

A written document in which the signer swears under oath before a notary public or someone authorized to take oaths that the statements in the document are true.

AFFIRMATIVE EFFORTS

Documented, good faith efforts to contact and employ women and minorities and to solicit and contract with Women and Minority Businesses (WMBEs) as documented in the Inclusion Plan form.

AGREEMENT FORM

The Owner-provided form that requires the authorized signatures of the Contractor and the Owner to formally execute the Contract.

ALTERNATE

A unit of Work or group of Bid items, identified separately in the Bid Documents, which permits a choice of different methods or Material of construction for performing the same Work.

ARCHITECT

An individual licensed and registered in the State of Washington to practice architecture.

ASSISTANT

The Engineer's authorized representative assigned to make detailed inspection of the Work.

AWARD

The formal decision of the Owner to accept the lowest responsive Bid of a responsible Bidder for the Work as evidenced by the issuance of the Award of Contract.

BASE BID

The summation of Bid item amounts (extensions) or the lump sum Bid on the Bid Form, excluding Additives, Alternates, Deductives and taxes.

BID

The written offer of a Bidder, executed pursuant to the Bid Documents, to perform the Work for a specific price. The terms "Bid" and "Bid Form" and like terms are synonymous.

BIDDER

An individual, partnership, firm, corporation, limited liability company or joint venture submitting a Bid.

BID DOCUMENTS

The component parts of the proposed Contract which may include the Advertisement for Bids, Bid Form, Agreement Form, Project Manual, Drawings, Addenda and any other documents incorporated into the Contract by reference.

BID FORM

The Bid and the Affidavit/Declaration included in the Bid Documents.

BID GUARANTY

Bid bond, cashier's check or certified check accompanying the Bid as a guarantee that the Bidder will enter into an agreement with the Owner for performance of the Work if the Bidder is Awarded the Contract.

CAPABILITY OR CAPABLE

A business that appears able to perform a Commercially Useful Function on the item of Work in question.

CERTIFIED ON-SITE-EROSION CONTROL LEAD (CESCL)

An employee of the Contractor responsible for erosion and sediment control, water quality protection, and implementation the Construction Stormwater and Erosion Control Plan (CSECP), with a Certificate of Training in Construction Site Erosion and Sediment Control from a course approved by the Washington State Department of Ecology.

CHANGE ORDER

A written order issued by the Engineer to the Contractor authorizing a change to the Contract after execution of the Contract. A Change Order establishes the basis of payment and time adjustments, if any, for the Work affected by the change.

COMMERCIALLY USEFUL FUNCTION

The performance of real and actual services in the discharge of any contractual endeavor including managing and supervising the Work involved, negotiating price, determining quality and quantity, ordering, paying for and installing (if applicable) the material.

CONSTRUCTION INCLUSION PLAN

The Owner-provided form used by the Contractor to document Affirmative Efforts. Replace all references to Outreach Plan with Inclusion Plan.

CONTAMINATED MATERIAL(S)

Soil/material/debris/liquid of any kind that has contaminant levels above the more stringent of their respective applicable MTCA Method A cleanup level, Method B cleanup level, or Table 749-2 level, all for unrestricted land use per current Chapter 173-340 WAC, or that contains asbestos, or that contains radionuclides above natural background levels as defined by WAC 173-340-200.

CONTAMINATED MATERIAL(S) NOT DESIGNATED AS DANGEROUS WASTE OR TSCA WASTE

Contaminated Material(s) that has contaminants at levels below that which would cause it to be designated as Dangerous Waste(s) or TSCA Waste(s).

CONTRACT

The written agreement between the Owner and the Contractor, which includes the signed Agreement Form, Bid Form, Contract provisions, Drawings, Standard Specifications, Standard Plans, Addenda, certifications, supplemental agreements, Change Orders and all other documents specifically incorporated by reference comprise the Contract.

CONTRACT FORM

See "Agreement Form."

CONTRACT PRICE

1. **Awarded Contract Price:** The summation of Bid item amounts or extensions or a lump sum for all items of Work, including applicable taxes, upon which the Award is made.
2. **Revised Contract Price:** The Awarded Contract Price, adjusted at any time after Award but prior to the Completion Date.
3. **Final Contract Price:** The total amount of money payable to the Contractor under the terms and conditions of the Contract.

CONTRACT TIME

The period of time established by the Contract within which the Work shall be physically completed.

CONTRACTOR

The individual or entity contracting with the Owner to complete the Work.

CULVERT

Drainage Structure that may, or may not, directly support traffic and that extends across and beneath a highway, street, driveway, alley, arterial, or other public way.

DANGEROUS WASTE(S)

Solid waste(s) designated in WAC 173-303-070 through 173-303-100 as dangerous, or extremely hazardous or mixed waste. Dangerous Waste(s) includes all federal hazardous waste, plus certain wastes exhibiting characteristics based on toxicity or persistence.

DATES

1. **Bid Opening Date:** The date on which the Owner publicly opens and reads the bids.
2. **Award Date:** The date on which the Owner formally accepts the lowest responsive Bid of a responsible Bidder and Awards the Contract for the Work.
3. **Contract Execution Date:** The date the Owner officially binds the agency to the Contract.
4. **Notice to Proceed Date:** The date stated in the Notice to Proceed on which the Contract Time begins. The Notice to Proceed Date is counted as the first Working Day of Contract Time.
5. **Substantial Completion Date:** The date the Engineer determines the Owner has full and unrestricted use and benefit of the facilities, both from an operational and safety standpoint, and only minor incidental Work, replacement of temporary substitute facilities, or correction or repair remains for the physical completion of the Contract.
6. **Physical Completion Date:** The date the Owner determines that all Work is physically complete 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.
7. **Completion Date:** The date, certified in writing by the Owner, when 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 shall be furnished by the Contractor before establishment of this date.

DAY

Unless otherwise specified, day(s) shall mean Calendar Day(s).

1. **Business Day:** Any Day other than Saturday, Sunday, or Holiday.
2. **Calendar Day:** The time period of twenty-four hours measured from midnight to the next midnight.
3. **Non-Working Day:** The following are Non-Working Days:
 - a. Saturday.
 - b. Sunday.
 - c. Holiday.
 - d. A Day upon which the Engineer issues a suspension order for an excusable delay or a Day declared an Unworkable Day.
 - e. A Day the Contract specifically requires the Contractor to suspend the Work.
4. **Working Day:** A Day not otherwise defined as a Non-Working Day.
5. **Unworkable Day:** A Working Day that the Engineer declares to be unworkable because of unsuitable weather, or another condition beyond the control of the Contractor that prevents ongoing or scheduled work on the critical path.

DECLARATION

The part of the Bid Form that is signed by the Bidder, which acknowledges Addenda issued during the bidding period and Contract conditions relating to affirmative efforts/equal employment opportunity; non-collusion; insurance; subcontracting; and responsible bidder requirements.

DEDUCTIVE

A supplemental unit of Work or group of Bid items, identified separately in the Bid that may, at the discretion of the Owner, be deducted from the Base Bid.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

An OMWBE certified small business that is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

DRAWINGS

The portions of the Contract showing in graphic or pictorial form the design, location, and dimensions of the elements of the Work.

ELECTRICAL SAFETY OBSERVER

The Engineer's authorized Assistant assigned to monitor electrical safety, unless indicated otherwise in the Contract.

ENGINEER

The Owner's representative(s), or authorized Assistant, who administers the Work of this project.

EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (ESCBMPs)

The Contractor shall use on-site construction practices and devices that prevent, reduce, or treat erosion and sedimentation and maintain surface water quality.

EXECUTION

The formal date after Award that the Owner and Contractor enter into a Contract as evidenced by the authorized signatures on the Agreement Form along with the provision of the necessary bond(s), insurance(s), and any other required documents.

HOLIDAY

Pursuant to SMC 4.20.190 and RCW 1.16.050, Holidays for The City of Seattle are the:

1. First day of January (New Year's Day).
2. Third Monday of January (Dr. Martin Luther King, Jr.'s Birthday).
3. Third Monday of February (President's Day).
4. Last Monday of May (Memorial Day).
5. Fourth Day of July (Independence Day).
6. First Monday of September (Labor Day).
7. Eleventh Day of November (Veterans' Day).
8. Fourth Thursday of November and the Friday immediately following (Thanksgiving Day).
9. Twenty fifth Day of December (Christmas Day).

When any Holiday falls on a Sunday, the following Monday shall be considered a Holiday. When any Holiday falls on a Saturday, the preceding Friday shall be considered a Holiday. Holidays are Non-Working Days.

INSPECTOR

See "Engineer."

JOB SITE

See "Project Site."

LABORATORY

The materials laboratory of the Engineer or such other laboratories authorized in writing by the Engineer.

LIQUIDATED DAMAGES

The amount(s) stated in the Contract to be paid to the Owner by the Contractor, for each Working Day of delay in achieving the Substantial Completion Date and the amounts stated in the Contract to be paid after Substantial Completion and until the Physical Completion Date is achieved. Such obligation shall not be construed as a penalty, and may be Deducted by the Owner from any payments which are due or become due to the Contractor.

MATERIALS

Any substance specified for use in the construction of the project that enters into and forms a part of the finished Work.

MATERIALPERSON

A person or entity that furnishes material, supply, commodity, equipment, or manufactured or fabricated products and does not perform labor at the Project Site.

MINERAL AGGREGATE

Rock, gravel, sand or a blend thereof, with properties defined in the Standard Specifications which are commonly used in Seattle's road, bridge, and municipal construction.

NOTICE OF AWARD

A formal written notice from the Owner to the successful Bidder signifying acceptance of the Bid.

NOTICE TO PROCEED

The written notice from the Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract Time begins.

ON-SITE-ELECTRICAL LEAD

The Contractor's on-site representative responsible for and authorized to resolve electrical safety related issues including those raised by the Engineer, Assistant, or Electrical Safety Observer.

OWNER

The City of Seattle.

PAYMENT AND PERFORMANCE BOND

The approved form of security, furnished by the Contractor and the Contractor's Surety, guaranteeing faithful performance of the Contract and payment to persons supplying labor and Materials in the prosecution of the Work. The Owner will provide the Payment and Performance Bond form to the Contractor.

PROJECT MANUAL

The compilation of written provisions and requirements for the Work related to a specific project. The Project Manual includes, but is not limited to, the requirements for Bids, sample forms, original and executed Agreement Form, wage rates, conditions of the Contract, Special Provisions and Addenda.

PROJECT SITE

The geographic location, as defined in the Contract documents, where the Work is to be performed.

REAL PROPERTY

Land and improvements permanently affixed to the land.

RIGHT OF WAY

Real property secured and reserved for public or private transportation, utility, or other purposes.

SEWER

Any pipe, conduit, or structure used for carrying sewage and other waste liquids, excluding discharges prohibited by SMC 21.16 (the Side Sewer Code).

SHOP DRAWINGS

Working drawings, shop plans, erection plans, falsework plans, framework plans, cofferdam, cribbing and shoring plans, bending diagrams for reinforcing steel, retaining wall designs, schematic diagram, or any other supplementary plans or similar data which the Contractor shall submit to the Engineer for acceptance.

SPECIAL PROVISIONS

Supplemental provisions and modifications to the Standard Specifications that apply to an individual project and that are found in the Project Manual.

SPECIFICATIONS

Written technical descriptions of materials, equipment, construction systems, standards, and workmanship that, in conjunction with the Drawings and other Contract documents, detail the requirements for the Work.

STANDARD PLANS

The current edition of The City of Seattle Standard Plans for Municipal Construction adopted by the Owner as modified by updates found in the Appendix.

STANDARD SPECIFICATIONS

The current edition of The City of Seattle Standard Specifications for Road, Bridge, and Municipal Construction adopted by the Owner and supplemented by the current edition of the City of Seattle Traffic Control Manual for In-Street Work.

STATE

The State of Washington.

STORM DRAIN

A pipe, conduit, or structure used to collect and convey rainwater and other permissible discharges as identified in SMC 22.800-22.808 (the Stormwater Code).

STRUCTURES

Bridges, Culverts, walls, buildings, foundations, water tanks, transmission towers, cribbing, caissons, or cofferdams, and other similar features that may be encountered in the Work and are classified as Structures in the Contract.

SUBCONTRACTOR

An entity or individual who performs a portion of the Work pursuant to a contract or subcontract of any tier with the Contractor, with the prior written approval of the Engineer as evidenced by the submission of the Subcontractor approval application.

SUBSTANTIAL COMPLETION

See "Dates".

SUPPLEMENTAL CONTRACT

An agreement for performance of a portion of the Work in accordance with the provisions of RCW 60.28.011(7).

SUPPLIER

See "Materialperson".

SUPPLIES

Any substance or matter used or consumed in the construction of the project and its appurtenances that do not become part of the Structure or improvement.

SURETY

A company that is bound with the Contractor to ensure:

1. Faithful performance of the Contract, and
2. Payment of all laborers, mechanics, Subcontractors and Materialperson and all persons or entities that supply any such person with provisions and Supplies for the carrying on of the Work.

TRAFFIC CONTROL MANUAL FOR IN-STREET WORK

The "Seattle Traffic Control Manual" (TCM), is the City of Seattle guide for Work within the Right Of Way, used in conjunction with and as a supplement to the Manual on Uniform Traffic Control Devices (MUTCD), as modified and adopted by the Washington Department of Transportation (WSDOT).

TSCA WASTE(S)

Soil/material/debris/liquid of any kind that contains polychlorinated biphenyls (PCBs) at a level that equals or exceeds 50 parts per million, and oil of any kind that contains PCBs at a level that equals or exceeds 2 parts per million. TSCA Waste(s) is regulated by the federal Toxic Substances Control Act.

WATER MAIN

A water supply pipe for public or community use.

WMBE GOAL

Participation level, voluntarily established by the Contractor, for commitments to contract with WMBEs.

WOMEN OR MINORITY BUSINESSES (WMBES)

Businesses that are self-identified or certified by the Office of Minority and Women's Business Enterprise (OMWBE) to be at least fifty-one (51) percent owned by women and/or minority (including, but not limited to, African Americans, Native Americans, Asians, and Hispanics) group members.

WORK

The provision of all labor, Materials, equipment, Supplies, and everything needed to successfully complete a project pursuant to the Contract.

SECTION 1-02 BID PROCEDURES AND CONDITIONS**1-02.1 RESPONSIBLE BIDDER**

For a Bidder to be considered responsible, the Bidder shall meet all of the requirements in Section 1-02.1 and shall provide the Supplemental Bidder Responsibility Form (the Form) and any documentation necessary for the Owner to establish that the Bidder meets the Supplemental Bidder Responsibility Criteria requirements in Section 1-02.2. The documentation must demonstrate that the Bidder is qualified to perform the work based on the firm's successful completion of past work and the firm's compliance with legal and contractual requirements. The Owner reserves the right to take whatever action it deems necessary to ascertain the ability of the Bidder to perform the Work satisfactorily.

Before Award of the Contract, the Bidder shall meet the following responsibility criteria to be considered a responsible Bidder. The Bidder shall:

1. At the time of bid submittal, have a certificate of registration in compliance with Chapter 18.27 RCW;
2. Have a current State unified business identifier number;
3. If required, have industrial insurance coverage for the Bidders' employees working in Washington as required in Title 51 RCW; an employment security department number as required in Title 50 RCW; and a state excise tax registration number as required in Title 82 RCW; If the Contractor has no employees, the Contractor shall follow the alternative election process and provide documentation under Title 50 and Title 51;
4. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 and not listed on the federal excluded parties list (<http://www.sam.gov/>); and
5. Meet any supplemental criteria requirements in Section 1-02.2.
 - a. The Bidder may request that the supplemental Bidder responsibility criteria be modified. Such request shall be submitted to CPCS via the Form submittal methods listed on the Supplemental Bidder Responsibility Criteria Form no later than 5:00 PM, five (5) business days prior to the Bid Opening Date. The request shall be marked, "Request to Modify Supplemental Bidder Responsibility Criteria – PW# _____." If the City determines a modification is necessary, an Addendum to the Bidding Documents will be issued to identify the new criteria.

If the Owner determines a Bidder to be not responsible, the Owner will provide, by email or other writing, the reasons for the determination. The Bidder may protest the determination within the time period specified in the Bidding Documents (See Section 1-03.6 regarding Protests) by presenting additional information to the Owner. The Owner will consider the additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Owner will not execute a Contract with any other Bidder until two (2) Business Days after the Bidder determined to be not responsible has received the final determination.

Additionally, the Bidder shall verify responsibility criteria for each first tier Subcontractor, and a Subcontractor of any tier that hires other Subcontractors shall verify responsibility criteria for each of its Subcontractors. Verification shall include that each Subcontractor, at the time of subcontract execution, meets the responsibility criteria listed in items 1. through 5. above, and possess an electrical Contractor license, if required by Chapter 19.28 RCW, or an elevator Contractor license, if required by Chapter 70.87 RCW. This verification requirement, as well as the responsibility criteria, shall be included in every public works Contract and subcontract of every tier.

1-02.2 SUPPLEMENTAL BIDDER RESPONSIBILITY CRITERIA

The supplemental Bidder responsibility criteria are contained herein, in Section 1-03.1(4), the Supplemental Bidder Responsibility Criteria Form, and in any additional forms may also be contained in the appendix of the Project Manual.

1. Submission and Evaluation of the Criteria Form

The apparent low Bidder shall submit the Form and any additional documentation to CPCS within three (3) Business Days of receipt of request or as otherwise acceptable to CPCS. The documentation shall sufficiently demonstrate, in the sole judgment of the Owner, that the Bidder meets the supplemental bidder responsibility criteria. The Bidder may provide any additional information the Bidder believes demonstrates the experience necessary to satisfy the City's supplemental Bidder responsibility criteria. The Owner may consider this additional information in evaluating the Bidder. The Owner reserves the right to request further documentation as needed to assess Bidder responsibility. The Owner reserves the right to request the Form and any additional documentation from other Bidders.

If the Bidder fails to supply information requested concerning responsibility within the time and per the requirements specified in the Bid Documents, the Owner may request additional information or may base its determination of responsibility upon any available information related to the supplemental Bidder responsibility criteria or may find the Bidder not responsible.

The basis for evaluation of the Bidder's responsibility under the supplemental criteria shall be the Bidder's responses and any documents or facts obtained by the Owner whether from Bidder or third parties which any reasonable Owner would rely on for determining responsibility, including but not limited to: (a) financial, historical, or operational data; (b) information obtained directly by the Owner from owners for whom the Bidder has worked, or other public agencies or private entities; and (c) any additional information obtained by the Owner which is believed to be relevant to the matter. In addition to contacting bonding companies, the Owner reserves the right to request financial statements from the Bidder to ensure that the Bidder has sufficient financing and financial capacity for the project.

2. Work Experience

The Bidder shall document in Part B of the Form and on the required attachment that the Bidder and the Bidder's Personnel have "successfully completed" projects of a similar type, size, and scope as required by the Specifications and Form for this project; have appropriate equipment available and experience operating such equipment; and have available capacity to take on the work of the project.

It is the Bidder's responsibility to verify that the reference information provided (names and phone numbers) is current. If the Project Manager is unable to contact the individuals in order to verify Bidder or Subcontractor experience, the related experience may not be considered by the Project Manager.

3. Personnel

By submitting the information required on the form regarding Bidder's personnel, the Bidder certifies that it shall assign such personnel to the project. In the event it becomes necessary for the Bidder to substitute personnel during the life of the Contract, the following provisions apply:

- a. Prior to substituting a new Project Manager or Superintendent, the Contractor shall submit for the approval of the Engineer or Owner, qualifications for the new personnel documenting that the new personnel meet the supplemental bidder responsibility criteria established for the project.
- b. The Engineer or Owner may suspend the project if the Contractor substitutes a Project Manager or Superintendent without the Engineer or Owner's approval. The Contractor shall be fully liable for the additional costs resulting from the suspension of work and no adjustments in Contract time resulting from the suspension of work will be allowed.

4. Compliance History, Social Equity Compliance, and Legal Criteria

For the Bidder to be considered responsible under each criteria requiring a "Yes" or "No" answer, the Bidder shall either have a history of compliance or shall provide an explanation acceptable to the Owner of any extenuating circumstances that contributed to the Bidder's non-compliance. The criteria apply to the Bidder, personnel listed, and any former companies identified in Part A. A "yes" may not automatically mean that a Bidder is considered not responsible, but the burden is on the Bidder to demonstrate that they should be considered responsible.

5. Failure to Disclose or False Information

Failure to disclose information requested on the Form or attachments or the submission of false or misleading information may result in the Owner taking the following actions:

- a. Rejection of the Bidder's bid under Section 1-02.14;
- b. Revocation of the contract Award;
- c. Termination of the contract under Section 1-08.10; or
- d. Proceeding with debarment under Section 1-08.10(8) and SMC 20.70.

1-02.3 ESTIMATED QUANTITIES

The quantities shown on the Bid Form are estimates only and are stated for Bid comparison purposes. The Owner does not warrant, expressly or by implication, that the actual quantities of the Work will correspond with those estimated. The Engineer reserves the right to increase or decrease the amount of any Bid item of Work, or to make other changes in the Work as necessary. Payment will be made on the basis of the actual quantities of each Bid item of Work completed in accordance with the Contract.

1-02.4 EXAMINATION OF BID DOCUMENTS AND PROJECT SITE

1-02.4(1) GENERAL

Bid Documents may be obtained by downloading from the City's official electronic Bid solicitation website. A link to the current electronic Bid solicitation website can be found at <http://www.seattle.gov/contracting/bidding.htm>.

The Bidder shall carefully examine the Bid Documents. Submittal of a Bid shall be conclusive evidence that the Bidder has made these examinations and understands all requirements of the Bid process and for the performance of the Work. The Bidder further warrants, agrees and acknowledges by submitting a Bid, that:

1. The Bidder has taken all steps necessary to ascertain the full scope, nature and location of the Work;
2. The Bidder has investigated and is satisfied as to the general and local conditions which can affect the Work and its cost, including but not limited to:
 - a. Conditions bearing upon acquisition, transportation, disposal, handling, and storage of materials,
 - b. The availability of labor, materials, water, electric power, and roads,
 - c. Uncertainties of weather, river stages, tides, or similar physical conditions at the Project Site,
 - d. The conformation and condition of the ground,
 - e. The character of equipment and facilities needed preliminary to and during Work performance, and
 - f. Site and environmental conditions which by statute, law, or regulation require specific training and certifications for employees;
3. The Bidder is satisfied as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the

Project Site (including Materials sites) as well as from the Bid Documents and other information made a part of this Contract;

4. The Bidder is satisfied as to the adequacy of the amount of time allowed for physical completion of the Contract;
5. The Bidder is responsible for properly estimating the difficulty and cost of successfully performing the Work;
6. The Bidder is familiar with and shall comply with all federal, state, and local laws, ordinances, and regulations that might affect the Work or those engaged in the Work. The Bidder is not relieved of this obligation because of the Bidder's misunderstanding or ignorance of such requirements; and
7. The Bidder's Bid prices shall reflect the Bidder's anticipated cost of completing the Work, including, Materials, labor, equipment and costs including insurance and bonding.

The Bidder has a duty to inquire with respect to a defect or ambiguity in the Contract. Prospective Bidders desiring an explanation or interpretation of the Bid Documents shall request the explanation or interpretation in writing no later than 5:00 PM three (3) Business Days prior to Bid opening. Inquiries made after 5:00 PM three (3) Business Days prior to Bid opening will not relieve the Bidder from the requirements of this Section.

A claim will not be allowed because of any defect or ambiguity in the Contract if prior to Bid opening:

- 1) The Bidder discovers a defect or ambiguity but fails to notify the Engineer and ask for a clarification, or
- 2) The Bidder failed to discover any defect or ambiguity that would be discovered by a reasonably prudent Contractor in preparing its Bid.

1-02.4(2) SUBSURFACE INFORMATION

If the Engineer has made a subsurface investigation of the Project Site of the proposed Work, the boring log data, soil sample test data, and geotechnical reports accumulated by the Engineer will be made available for inspection by the Bidders. The boring logs shall be considered as part of the Contract. However, the Engineer makes no representation, guaranty or warranty, expressed or implied, that:

1. The Bidder's interpretation from the boring logs or geotechnical reports is correct;
2. Moisture conditions and indicated water tables do not vary from those found at the time the borings were made;
3. The ground at the location of the borings has not been physically disturbed or altered after the boring was made; and
4. The conditions, materials, or proportions of the materials is consistent between the specific borings-

In addition to the above data, DPD has geotechnical reports for private property located in an Environmentally Critical Area-Geographically Hazardous zone if the private property has been under DPD permit review. This data is available for the Contractor's review at the following location:

DPD
Soils Reports
700 Fifth Avenue
22nd Floor
Seattle, Washington 98104
206-684-8860
206-233-7902 (FAX)

The availability of subsurface information from the Engineer shall not relieve the Bidder or the Contractor of any duty to make examinations and investigations as required by Section 1-02.4(1) and any other responsibility under the Contract, or as may be required by law.

1-02.5 FORM AND STYLE OF BID

A Bid shall be submitted only on the Bid Form issued by the Owner. Bids shall be completed by typing or shall be printed in ink by hand. A price shall be submitted for each Bid item listed.

Spaces to be filled in by the Bidder include:

1. Bid item prices;
2. Bid item amounts (extensions);
3. Summations and, where applicable, retail sales tax;
4. Acknowledgment of Addenda;
5. The Bidder's name, address, telephone and Fax number, e-mail, and signature;
6. A State of Washington Contractor's Registration Number;
7. The Bidder's UBI number; and
8. The Bidder's ESD number.

Any correction or changes to a Bid shall be initialed, and are considered valid changes that are bound by the signature on the Bid Form. The Bidder shall make no stipulation on the Bid Form nor qualify the Bid in any manner. A Bid amount shall be included for every Additive, Alternate, or Deductive identified in the Bid Form, unless otherwise specified. A person authorized to legally bind the Bidder shall sign the Declaration in the Bid Form.

1-02.6 ADDENDA

If the Engineer determines modifications or clarifications to the Bid Documents are required, they will be provided by Addenda. Oral explanations, interpretations, or instructions will not be binding on the Owner. Only modifications or clarifications issued by a written Addendum are binding. Notifications of Addenda and other project information will only be sent to "official" plan holders who downloaded or ordered documents through the City's official electronic Bid solicitation website (including plan centers that obtained documents through the website). A link to the current electronic Bid solicitation website can be found at <http://www.seattle.gov/contracting/bidding.htm>. All Bidders are encouraged to check the electronic Bid solicitation website for Addenda at least twenty-four hours prior to Bid Opening.

The Bidder shall acknowledge receipt of each Addendum by filling in the appropriate spaces on the Bid Form Declaration.

1-02.7 BID GUARANTY

The Bid Guaranty shall be equal to five percent of the maximum Bid amount that could be Awarded based on the Bidder's Bid, including sales tax, Additives, and Alternates, if applicable. A Bid will not be accepted or considered unless accompanied by a Bid Guaranty.

A Bid shall be accompanied by a Bid Guaranty in the form of:

1. A certified or cashier's check payable to The City of Seattle, or
2. A Bid bond on the form issued by the Surety.

Bid bonds shall be issued by a surety company that is authorized to do business in the State of Washington and appears on the current list of authorized insurance companies published by the Office of the Washington State Insurance Commissioner.

Bid bonds shall contain the following:

- 1) Project name and number;
- 2) The City of Seattle named as obligee;
- 3) The amount of the Bid bond stated as five percent of the maximum Bid amount that could be Awarded; and
- 4) The signature of the Surety's officer empowered to sign the bond and the power of attorney.

1-02.8 NONCOLLUSION REQUIREMENT

The Bidder, by signing its Bid, declares that the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in the preparation and submission of its Bid to the Owner. The Bidder(s) and other potential Bidders or participants in collusion may be declared not responsible under Section 1-02.14 and may be debarred pursuant to SMC Chapter 20.70.

1-02.9 BID SUBMITTAL**1-02.9(1) GENERAL**

The sealed Bid shall be received by CPCS by the time, date, and location specified in the Advertisement for Bids or as modified by Addenda. The Bid Form, together with the Bid Guaranty and such other documentation required, shall be enclosed in a sealed envelope marked with the project name and the Bidder's name, and be addressed to CPCS.

Physical Address: City Purchasing and Contracting Services
Department of Finance and Administrative Services
Seattle Municipal Tower
700 Fifth Avenue, Suite 4112
Seattle, Washington 98104-5042

If sending by courier (UPS, FedEx, etc.) the physical street address shall be used. If the Bid is sent via courier, enclose the Bid inside a separate sealed envelope and note "Bid Enclosed" and the Name of the Project on the front of the envelope.

If mailing by regular US mail, the Post Office Box shall be used. Bidders are responsible for ensuring that the proper Zip Code is used.

Mailing Address: City Purchasing and Contracting Services
Department of Finance and Administrative Services
City of Seattle
P.O. Box 94687
Seattle, Washington 98124-4687

CPCS designates the official bid clock. The Bidder is responsible for the timely submittal or delivery of the Bid at the location designated in the Advertisement for Bids. Mailed Bids must be received by CPCS by the time, date, and at the location specified. A Bid submitted, delivered, or received after the time fixed for receipt of Bids will not be accepted.

1-02.9(2) CHANGE OF BID SUBMITTAL DATE

The Owner reserves the right to change the date and time for Bid submittal. Notification of the change will be by Addendum.

1-02.9(3) BIDDER/SUBCONTRACTOR LIST

In compliance with RCW 39.30.060 for all projects estimated to cost \$1,000,000 or more, all Bidders shall complete and submit the Bidder/Subcontractor List, Section 0-01.5 of the Project Manual. The completed Bidder/Subcontractor list shall identify the Subcontractors that the Bidder will directly contract with for the performance of HVAC, plumbing, and electrical work; indicate that the Bidder intends to self-perform the work, if awarded the Contract; or that category of work is not applicable. The Bidder may list no more than one Subcontractor for each category of work, unless Subcontractors vary with Bid Alternates, Additives, or Deductives, in which case the Bidder shall indicate on a separate Bidder/Subcontractor List which Subcontractor will be used for which Alternate, Additive, or Deductive. If the HVAC, plumbing, or electrical specialty is left blank (either the name of a Subcontractor is blank or a checkbox is not checked), the City will accept the blank as "self performance" The Bidder shall be bound to self-performance of that specialty for the duration of the Project.

The Bidder/Subcontractor List may be submitted with the Bid, or separately within one hour of the time and date for Bid submittal. Failure to complete and submit the Bidder/Subcontractor List by the required time will result in the Bid being declared non-responsive and rejected. The Bidder/Subcontractor List may be submitted at the addresses listed in Section 1-02.9(1), faxed to (206) 684-4511, or by submitting a signed PDF version of the form to Judy.Keefe@Seattle.gov. Clearly mark the PW# and Project Name and Bidder's name to ensure the form is routed correctly. The Bidder is responsible for the timely delivery of the Bidder/Subcontractor List. If Awarded the Contract, the Bidder agrees to utilize the Subcontractors identified on the Bidder/Subcontractor List unless the City agrees to a substitution.

1-02.9(4) INCLUSION PLAN

For all public works projects having an Engineer's Estimate of \$300,000 or more, all Bidders shall complete and submit the Inclusion Plan, Section 0-01.4 of the Project Manual, with the Bid. Failure to submit a completed Inclusion Plan as required on the Plan will result in a determination that the Bid is non-responsive and the Bid will be rejected. The Bidder's completed Inclusion Plan will be awarded points based on how well the Inclusion Plan demonstrates the Bidder's commitment to make Affirmative Efforts to establish and meet reasonably achievable goals for WMBE utilization. In order to be considered responsive, the Bidder's Inclusion Plan must receive at least the minimum number of points as detailed on the Plan to be considered responsive.

For purposes of the Inclusion Plan, this is considered a _____ type of project with a Past Performance of _____ % WMBE utilization rates based on completed projects.

1-02.10 MODIFICATION OR WITHDRAWAL OF BID

After submitting a Bid to the Owner, the Bidder may withdraw its Bid if the Owner receives the request to withdraw the Bid prior to the time bids shall be submitted. After submitting a Bid to the Owner, the Bidder may revise its Bid if the Owner receives the request to revise the Bid prior to the time bids shall be submitted and the revised Bid shall be submitted in a properly marked and sealed envelope prior to the time bids shall be submitted.

A Bid may not be modified, withdrawn, or canceled by the Bidder after the time for Bid submittal unless the Award is delayed for a period exceeding the limit set forth for Award or a Bidder's claim of error is upheld by the Owner.

1-02.11 ADDITIVE, ALTERNATE, DEDUCTIVE

The Engineer reserves the right to arrange the Bid Form with Alternate, Additive, and/or Deductive items, if such be to the advantage of the Owner. The Bidder shall bid on all Alternates, Additives and Deductives in the Bid Form.

1-02.12 PUBLIC OPENING OF BIDS

Bids will be opened and read immediately after 2:00 PM on the date indicated in the Advertisement for Bids or in an Addendum, in the Seattle Municipal Tower, 700 Fifth Avenue, Suite 4112, Seattle, Washington 98104.

1-02.13 IRREGULAR BIDS

1. Bid will be considered irregular and non-responsive, and will be rejected if:
 - a. The authorized Bid Form is not used;
 - b. The completed Bid Form contains any unauthorized addition, deletion, alternate Bid, or condition;
 - c. The Bidder adds provisions reserving the right to accept or reject the Award or to enter into the Contract;
 - d. The Bidder did not Bid on all Additives, Deductives, or Alternates, when required;
 - e. The Bid does not include a Bid item price for every Bid item;
 - f. The Bid Guaranty is not included with the Bid;
 - g. For projects estimated to cost \$1,000,000 or more, the Bidder did not comply with the Bidder/Subcontractor list requirements (See Section 1-02.9(3), Bidder/Subcontractor List);
 - h. The Bid does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation;
 - i. The Inclusion Plan is not submitted with the Bid when required; or
 - j. The Inclusion Plan does not receive the minimum score as identified in the Plan to be considered responsive when submitted with the Bid when required.
2. Bid may be considered irregular and may be rejected if:

- a. The Bid Guaranty is not complete;
 - b. Any of the Bid item prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Owner; or a Lump Sum Bid is excessively lower than other Bids;
 - c. Receipt of Addenda is not acknowledged;
 - d. The Bidder is a member of a joint venture or partnership and the joint venture or partnership submits a Bid for the same project (in such an instance, both Bids may be rejected);
 - e. The entries in the Bid Form are not typewritten or entered in ink; or
 - f. The Bid is not properly executed.
3. The Owner will notify the Bidder by email or by other writing if the Bid is rejected as being non-responsive.

1-02.14**DISQUALIFICATIONS OF BIDDERS**

1. A Bidder shall be deemed not responsible and its Bid rejected if:
 - a. The Bidder does not meet the bidder responsibility criteria in RCW 39.04.350(1) as amended and as specified in Section 1-02.1;
 - b. The Bidder appears on the federal excluded parties list (<http://www.sam.gov/>);
 - c. Evidence of collusion exists with any other Bidder or potential Bidder; or
 - d. If applicable, the Bidder failed to attend a mandatory pre-bid conference.
2. A Bidder may be deemed not responsible and its Bid rejected if:
 - a. The Bidder does not meet the Supplemental Bidder Responsibility Criteria, did not provide the completed and signed Form or required documentation to evaluate the Bidder qualifications, or fails to disclose or submits false or misleading information on the Form or in the attached documentation (see Section 1-02.2);
 - b. More than one Bid is submitted for the same project from a Bidder under the same or different names;
 - c. An unsatisfactory performance record exists as shown by past or current Work for the Owner, or for others, as judged from the standpoint of the conduct of the Work, environmental or safety compliance records, workmanship, progress, Affirmative Efforts, or equal employment opportunity practices; or termination for cause;
 - d. The Bidder failed to settle bills for labor or Materials on past or current contracts;
 - e. The Bidder has failed to complete a public contract;
 - f. The Bidder has been convicted of a crime arising from a previous public contract;
 - g. The Bidder is unable, financially or otherwise, to perform the Work;
 - h. The Bidder under consideration for Award is not in compliance with SMC Ch. 20.45 and the Equal Benefit Program Rules;
 - i. The Bidder is unable to obtain a current Seattle Business License and pay City taxes as required; or
 - j. For any other reason deemed proper by the Owner.
3. The Owner will notify the Bidder by email or by other writing if the Bidder is determined to be not responsible under this Section.

SECTION 1-03 AWARD AND EXECUTION OF CONTRACT**1-03.1 CONSIDERATION OF BIDS****1-03.1(1) RESERVED****1-03.1(2) BID TABULATION**

After Bid opening, Bids will be checked for correctness of Bid item price extensions and the total Bid price. A discrepancy between a Bid item price and the extended amount of any Bid item shall be resolved by accepting the Bid item price as correct. If a minimum Bid amount has been established for any item and the Bidder's unit or lump sum price is less than the minimum specified amount, the Owner will unilaterally revise the unit or lump sum price, to the minimum specified amount and recalculate the extension.

The low Bid will be determined by the sum of the Base Bid (the summation of Bid item price extensions, corrected where necessary), plus any Additives, Alternates, and/or Deductives that the Owner decides to include in the Contract Award. Additives, Alternates, and/or Deductives may be selected in any order that the Owner chooses. The summation of extensions, corrected where necessary, and including sales taxes if applicable, will be used to fix the Awarded Contract Price and the amount of the Payment and Performance Bond.

1-03.1(2) A RECIPROCAL PREFERENCE FOR RESIDENT CONTRACTORS (NEW SECTION)

A nonresident Contractor is a Contractor who does not have a physical office located in Washington at the time of bidding and is from a state that provides a percentage bid preference to its resident contractors bidding on public works contracts per RCW 39.04.380. The state of residence for a nonresident contractor is the state in which the contractor was incorporated or, if not a corporation, the state where the contractor's business entity was formed.

For a public works Bid received from a nonresident contractor from a state that provides an in-state percentage bidding preference, a Comparable Percentage Disadvantage (CPD) will be applied to the bid of that nonresident contractor. The CPD is the in-state contractor percentage advantage provided by the contractor's home state.

<http://www.des.wa.gov/services/facilities/Construction/ForAgencies/Pages/EASPublicAgencies.aspx>

For the purpose of determining the successful bidder, multiply the nonresident contractor's Bid amount by the CPD. The bid amount shall be the total of the Base Bid and all selected Additives, Alternates, or Deductives to be awarded. The CPD shall be added to the nonresident contractor's bid amount which equates to the nonresident disadvantaged total. The nonresident disadvantaged total shall be compared to the resident contractor's bid amount. The Bidder with the lowest total shall be the successful bidder. See example below:

Alaska nonresident contractor bid amount	\$100,000
Multiplied by the Alaska CPD (5%) x 0.05	\$5,000
New nonresident disadvantaged total	\$105,000

If the \$105,000 makes the Alaska Bidder's Bid higher than a Washington resident contractor's Bid (if the resident contractor's Bid was \$103,000), then the Washington resident contractor would be the apparent low bidder and the Contract awarded for the \$103,000.

If the \$105,000 Bid is still lower than the other Bids, the Alaska Bidder would be the apparent low bidder. The Contract would be awarded for the amount of the original bid amount of \$100,000. The CPD is only used for the determination of the low bidder.

1-03.1(3) CLAIM OF ERROR

A Bidder who wishes to claim error after the Bids have been opened shall submit a signed statement, accompanied by original work sheets used in the preparation of the Bid, requesting relief from the responsibilities of Award. The statement shall describe the specific error(s) and certify that the work sheets are the originals used in the preparation of the Bid. The statement and the work sheets shall be submitted in person, by courier, or by fax to:

City Purchasing and Contracting Services
City of Seattle, Department of Finance and Administrative Services

physical address:

700 Fifth Avenue, Suite 4112
Seattle Municipal Tower
Seattle, WA 98104-5042

Telephone (206) 684-0444

Fax (206) 684-4511

by 5:00 PM on the Business Day after Bid opening or the claim will not be considered. The Owner reserves the right to extend this deadline at its discretion.

The Owner will review the certified work sheets to determine the validity of the claimed error. If the Owner concurs in the claim of error, the Bidder will be relieved of responsibility, the Bid will be withdrawn from the Bid pool and the Bid Guaranty of the Bidder will be returned. Thereafter, at the discretion of the Owner, all Bids may be rejected or Award made to the next

lowest responsible Bidder. A low Bidder on a public works project who claims error and fails to enter into a contract is prohibited from bidding on the same project if the project is re-bid.

1-03.1(4) PRE-AWARD INFORMATION

The Owner will evaluate all Bids to determine the lowest responsive Bid of a responsible Bidder. This evaluation may include investigations to establish the responsibility, qualifications, financial resources, construction experience and organization available to do the Work pursuant to the Contract and the ability to do the Work for the Bid price. It is within the sole discretion of the Owner to determine the responsiveness of the Bid and the responsibility of the Bidder.

1. Responsible Bidder Criteria: The Owner will verify that the apparent low Bidder meets the requirements in RCW 39.04.350(1) as amended and as specified in Section 1-02.1.
2. Supplemental Bidder Responsibility Criteria: The apparent low Bidder shall, within three (3) Business Days of receipt of request or as otherwise acceptable to CPCS, submit the Supplemental Bidder Responsibility Criteria Form, along with any documentation, work experience, personnel experience, and additional information required to CPCS. The apparent low Bidder shall meet the requirements of Section 1-02.2 to be deemed a responsible Bidder.
3. Seattle Business License: The apparent low Bidder shall have a current Seattle Business License and shall be current on all Business and Occupancy Taxes pursuant to SMC 5.55.030 A, when the Work is in the City of Seattle; the Bidder conducts business in the City of Seattle; or the Contractor owes Taxes to the City of Seattle.
4. Equal Benefits: Except as may be provided in the Equal Benefits Program Rules, the Bidder under consideration for Award shall submit the Equal Benefits Declaration (included as part of the Supplemental Bidder Criteria Form) to CPCS within three (3) Business Days of receipt of the request or as otherwise acceptable to CPCS. The apparent low Bidder's compliance with SMC Ch. 20.45 and the Equal Benefit Program Rules shall be part of the Owner's evaluation of the Bidder's responsibility. See Section 1-07.11(1) for more information and reporting requirements.
5. Inclusion Plan: The apparent low Bidder shall comply with SMC 20.42 and RCW 35.22.650 pertaining to women and minority employment and subcontracting. The apparent low Bidder's Bid responsiveness will be evaluated based on the Inclusion Plan (Section 0-01.4) submitted with its Bid as required in Section 1-02.9(4). See Section 1-07.11(2)A for more information and reporting requirements.
6. The Contractor shall be registered on the City's Business Registration website before Contract Execution, if not currently registered (this is a one-time registration process):
<http://www2.ci.seattle.wa.us/VendorRegistration/>
7. Federal or State Funding Requirements: The apparent low Bidder shall comply with any additional requirements as a condition of state or federal funding, loans, or grants for the Work.
8. In addition, an apparent low Bidder under consideration for Award may be required to furnish:
 - a. A complete statement as to the origin, composition, and manufacture of any and all Materials to be used in the project, together with samples which may in turn be subjected to tests to determine their quality and fitness for the Work, as provided for in the Contract;
 - b. A critical path schedule in the form required by the Engineer showing the order of the Work and the time required on the various phases of the Work;
 - c. A breakdown of costs assigned to any Bid item or a schedule of values for Lump Sum Bids; and
 - d. Any additional information requested by the Owner in ascertaining the Bidder's general ability to perform the Work.

1-03.1(5) RIGHTS OF THE OWNER

In addition to such other rights as may be reserved elsewhere in the Contract, the Owner reserves the right to:

1. Reject any or all Bids at the Owner's discretion;
2. Re-advertise for Bids;
3. Waive informalities or immaterial irregularities in the Bidding, Award, and Execution processes;
4. Accept the lowest responsive Bid of a responsible Bidder;
5. Correct arithmetical errors in a Bid;
6. Cancel the Work; and
7. Award such Additive, Deductive or Alternate, as may be set forth in the Bid Form in the order most advantageous to the Owner.

1-03.2 AWARD OF CONTRACT

After the Owner has reviewed the Bid and pre-award documents and determined the lowest responsive and responsible Bidder, the Owner will provide the Notice of Award to all Bidders by email or by other writing to the email address furnished by the Bidder on the Bid. The notice will also be posted to the City's official electronic Bid solicitation website. Any Bidder who has not furnished an email address to the Owner as part of its Bid, assumes responsibility for monitoring the City's official electronic Bid solicitation website for such notice.

The Owner will endeavor to Award the Contract within sixty (60) days after the Bid Opening Date. If the Contract is not Awarded within that 60-day period, a Bidder may choose to withdraw their bid in writing at any time on or after the sixty (60) days. All Bids shall otherwise continue to be eligible for consideration until the City Awards the Contract.

1-03.3 EXECUTION OF CONTRACT

Within ten (10) Business Days of Award, unless extended by mutual agreement, the successful Bidder shall submit to CPCS insurance, Payment and Performance Bond, Retainage Bond if applicable, and the Agreement Form.

1-03.3(1) EVIDENCE OF INSURANCE

The successful Bidder shall submit to CPCS the evidence of insurance as required in Section 1-07.18 (e-mail is acceptable to Judy.Keefe@Seattle.gov).

1-03.3(2) PAYMENT AND PERFORMANCE BOND

The successful Bidder shall provide to CPCS an executed Payment and Performance Bond for the Awarded Contract Price. The Payment and Performance Bond shall:

1. Be on a form furnished by the Owner; and
2. Be signed by an approved Surety (or Sureties) that:
 - a. Is registered with the Washington State Insurance Commissioner;
 - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner; and
 - c. Has a current rating of at least A-VII in A.M. Best's Key Rating Guide or is included in the U.S. Department of the Treasury's Listing of Approved Sureties (Circular 570).

The Owner may require the Surety (or Sureties) named on the Payment and Performance Bond to appear and qualify itself. Whenever the Owner deems the security to be inadequate, the Owner may require in writing that the Contractor furnish additional security to cover any remaining Work. No payments will be made until the added security is furnished.

1-03.3(3) AGREEMENT FORM

The successful Bidder shall submit to CPCS the original Agreement Form signed by a person authorized to bind the Bidder's business.

After the Owner has signed and Executed the Contract, the Owner will forward a copy of the fully Executed Agreement Form to the successful Bidder.

No work shall begin within the Project Site or within sites furnished by the Owner until the successful Bidder has been given the Notice to Proceed per Section 1-08.4. The Contractor shall bear all risks for any work begun prior to the issuance of the Notice to Proceed except for submittal and procurement work as indicated in Section 1-08.4.

1-03.4 FAILURE TO EXECUTE THE CONTRACT

The Bidder's Bid Guaranty will be forfeited if the Bidder to whom the Award was made fails to:

1. Execute the Agreement Form within the required time period; or
2. Furnish satisfactory bond(s) and insurance(s) within the required time period.

The Owner may then Award the Contract to the second lowest responsible Bidder.

If the second lowest responsible Bidder fails to execute the Agreement Form and furnish satisfactory bond(s) and insurance(s) within ten (10) Business Days after Award has been made to the second Bidder, or within the time period mutually agreed upon by the Owner and second Bidder, the second Bidder's Bid Guaranty will also be forfeited. The Contract may be Awarded successively in a like manner to the remaining responsible Bidders until the Agreement Form is executed and bond(s) and insurance(s) furnished by a responsible Bidder or the remaining Bids are rejected.

1-03.5 RETURN OF BID GUARANTY

If the Bid Guaranty submitted by unsuccessful Bidders is in the form of a certified or cashier's check, the funds will be returned after Award. A Bid Guaranty submitted by unsuccessful Bidders in the form of a Bid bond will be disposed of after Contract Execution, unless an unsuccessful Bidder requests that it be returned.

The Bid Guaranty of the successful Bidder submitted in the form of a check will be returned after Contract Execution. A Bid Guaranty in the form of a bond from the successful Bidder shall be filed with the Executed Contract.

1-03.6 PROTESTS

Any protest of:

1. A Notice of Award, under Section 1-03.2;
2. A notice that a Bid is non-responsive under Section 1-02.13.3.; or
3. A notice that a Bidder is not responsible under Section 1-02.14.3.

Shall be filed in writing by 5:00 PM on the second Business Day after the notification date. The notification date is defined as the date on which the Owner gave notification as set forth in the relevant Section.

All such protests shall be in writing and submitted by hand, courier, e-mail, mail or fax. The protestor accepts all risks of the delivery method they choose. The Owner is not responsible to assure the protest is received by CPCS within the protest deadlines. If CPCS does not receive the protest in a timely manner, the protest may be refused. Submit the protest to:

Director
City Purchasing and Contracting Services
Department of Finance and Administrative Services

Physical address:

700 Fifth Avenue, Suite 4112
Seattle Municipal Tower
Seattle, WA 98104-5042

Mailing address:

P.O. Box 94687
Seattle, Washington 98124-4687
Telephone (206) 684-0444
Fax (206) 684-4511
Email: Judy.Keefe@Seattle.Gov

To be considered, the protest shall meet the following requirements:

- 1) The protestor must have submitted a Bid;
- 2) The protest must not be on a matter which should have been known to the Bidder before the bid deadline, including matters addressed under Section 1-02.4;
- 3) The protest must allege:
 - a. A matter of bias, discrimination, or conflict of interest;
 - b. Errors in responsiveness or responsibility; and/or
 - c. Non-compliance with procedures described in the Bidding Documents; and
- 4) All protests shall be in writing and state that the Bidder is submitting a formal protest. A notice that a Bidder intends to protest does not reserve the right to protest. The Bidder shall file a comprehensive protest within the required deadlines, following the proper format. A casual inquiry, complaint or protest that does not comply with the form, content or deadlines herein, may not be acted upon as a protest; failure to provide the following information may result in refusal of the protest:
 - a. Company name, mailing address, phone number, and name of company individual responsible for submission of the protest;
 - b. Specify the Public Works Number and project name;
 - c. State the specific action or decision protested;
 - d. Indicate the basis and support for the protest include specific facts and all documentation to support the protest. Additional documentation or information regarding any portion of the bidding or award process will not be accepted after the protest submittal;
 - e. Indicate what relief or corrective action the Bidder believes the Owner should make;
 - f. Demonstrate that the Bidder made every reasonable effort within the bidding process to resolve the issue, including asking questions, attending the pre-bid conference, seeking clarification, requesting addenda, and otherwise alerting the Owner to any perceived problems; and
 - g. Be signed by an authorized agent of the company.

The Director of City Purchasing and Contracting Services will review and decide all such protests. The Director's decision on the protest is final and exhausts all administrative remedies.

SECTION 1-04 SCOPE OF WORK**1-04.1 INTENT OF THE CONTRACT**

The intent of the Contract is to prescribe a complete Work. Omissions from the Contract of details of the Work that are necessary to carry out the intent of the Contract shall not relieve the Contractor from performing the omitted Work. The Contractor shall include all costs of completing the Work in the Bid item prices. The Contractor shall be responsible for the means, methods, techniques, sequences, and procedures of construction within the Contract requirements.

1-04.1(1) BID ITEMS INCLUDED IN THE BID

The Contractor shall provide all labor, Materials, tools, equipment, transportation, Supplies, and incidentals required to complete all Work.

1-04.1(2) BID ITEMS NOT INCLUDED IN THE BID

Where the Contract requires Work that is not listed as a Bid item in a "Payment" section of the Contract, then the costs shall be incidental and included within the Bid item prices of the various Bid items in the Contract. If Work is performed and a Bid item for that Work is not included in the Bid Form but is found in the Payment Section of the Contract, then payment will be in accordance with Section 1-04.4.

No separate or additional payment will be made for Work which is incidental to other Bid items specified in the Contract or is an obvious defect or ambiguity in the Contract under Section 1-02.4.

1-04.2 COORDINATION OF CONTRACT DOCUMENTS

1. All parts of the Contract are essential and complementary. A requirement occurring in one is binding as though occurring in all. The Contractor shall provide any Work or materials clearly implied in the Contract even if the Contract does not mention it specifically. The Contractor shall inform the Engineer immediately, in writing, if the Contractor finds:
 - a. A discrepancy between various parts of the Contract,
 - b. An error or omission in the Drawings, or
 - c. A discrepancy in the layouts and instructions given by the Engineer.

The Contractor shall not proceed with any Work affected by such discrepancy, error, or omission until directed to do so by the Engineer.
2. In the event of any conflicting provisions or requirements between the component parts of the Contract, the component parts of the Contract shall take precedence in the following order:
 - a. Change Orders.
 - b. Agreement Form.
 - c. Addenda.
 - d. Special Provisions included in the Project Manual.
 - e. Seattle City Light "guidelines", "standards", or "procedures" referenced in the Contract or included in the Appendix of the Project Manual.
 - f. Drawings.
 - g. City Standard Plan updates in the Appendix of the Project Manual.
 - h. This hard copy version Standard Specifications.
 - i. The hard copy version Standard Plans.

This order of precedence shall not apply when Work is required by one part of the Contract but omitted from another part or parts of the Contract. The Work required in one part shall be furnished even if not mentioned in other parts of the Contract.
3. Any electronic version of the Standard Specifications and the Standard Plans is for informational purposes only. Should any discrepancy exist between the hard copy version of the Standard Specifications and electronic versions of the Standard Specifications, the hard copy version Standard Specifications shall take precedence over all other versions.
4. Written dimensions shall take precedence over scaled dimensions.
5. If any part of the Contract requires Work that does not include a description for how the Work is to be performed, the Work shall be performed in accordance with standard trade practices. For purposes of the Contract, a standard trade practice is one having such regularity of observance in the trade as to justify an expectation that it will be observed by the Contractor in doing the Work.
6. In case of any ambiguity or dispute over interpretation of the provisions of the Contract, the decision of the Owner shall be final as provided in Section 1-05.1.

1-04.3 RESERVED**1-04.4 CHANGES**

As the Work proceeds, the Engineer may, at any time and without notice to the Surety or Sureties, change the Work. Changes to the Work do not invalidate the Contract or release the Surety. The changes may include:

1. Deleting any part of the Work;
2. Increasing or decreasing quantities;
3. Altering Specifications, designs, or both;
4. Revising the way the Work is to be done;
5. Adding extra Work;
6. Altering facilities, equipment, Materials, services, or sites provided by the Engineer; or,
7. Ordering the Contractor to speed up or delay the Work.

If changed Work increases the Awarded Contract Price by more than 25 percent or if the Owner specifically requests the Surety's consent, the Contractor shall obtain and furnish to the Owner, the written consent of the Surety (or Sureties) in a form acceptable to the Owner,

Changes in the Work will be incorporated into the Contract by Change Order. The exception is that a Change Order is not required for changes noted on field stakes placed by the Engineer or variations from estimated quantities that are less than 25 percent of the original Bid quantity. Changes noted on field stakes placed by the Engineer or variations from estimated quantities that are less than 25 percent of the original Bid quantity shall be paid at the Bid item prices that apply. The Contractor shall respond immediately to changes shown on field stakes and proceed with the Work without waiting for further notice.

The Contractor accepts all terms and requirements of a Change Order by endorsing the Change Order, writing a separate acceptance, or not disputing a Change Order as provided for in Section 1-04.5.

There may be Change Orders which change the Work or the Contract without resulting in a change in the Contractor's costs or time to do the Work. Such Change Orders are commonly referred to as 'no cost' Change Orders.

If the Engineer determines that a change increased or decreased the Contractor's costs or time to do any of the Work, including unchanged Work, the Engineer will make an equitable adjustment to the Contract. If the Contractor believes that any written directive or change increased or decreased the Contractor's costs or time to do any of the Work, and the Contract has not been equitably adjusted by the Engineer, the Contractor shall file a dispute under Section 1-04.5. If the Contractor believes they have encountered differing site conditions, "changed conditions," the Contractor shall follow the process in Section 1-04.7. In general, the Engineer will seek the Contractor's agreement on the equitable adjustment; however, if the parties cannot come to an agreement, the Engineer will unilaterally determine the total price of the equitable adjustment in accordance with Sections 1-09.4 and, if applicable, Section 1-08.8. An equitable adjustment for deleted work will be made in accordance with Section 1-09.5. An equitable adjustment for an increase or decrease exceeding 25 percent of the original quantity of any Bid item, will be made in accordance with Section 1-04.6. The Engineer's decision concerning an equitable adjustment of costs and time will be final unless the Contractor files a dispute and the dispute or a subsequent claim is upheld pursuant to Section 1-04.5.

The Contractor shall proceed with the Work upon receiving:

- 1) A written Change Order approved by the Engineer, or
- 2) A written directive from the Engineer.

1-04.5 DISPUTE AND CLAIMS RESOLUTION PROCESS

The dispute and claim resolution process shall follow the procedures set forth in this Section 1-04.5. The scope of the dispute set forth in the written dispute notice will govern and limit the scope of all subsequent claim, mediation or litigation on the subject matter, and the Contractor shall not be allowed to enlarge the scope of any claim beyond that originally presented in the written dispute notice.

1-04.5(1) DISPUTE RESOLUTION SEQUENCE

1. The dispute resolution process sequence shall be dispute, claim, mediation, litigation, in that order. The Contractor agrees to follow this sequence. Failure to follow this sequence by the Contractor shall constitute a waiver of any right to dispute or to claim for additional time or additional payment for the disputed Work.

2. All disputes shall start by the delivery of written notice to the Engineer. The Engineer will evaluate the notice and make a written decision on the matter as provided in Section 1-04.5(2). If the Contractor disagrees with the decision, in whole or in part, the Contractor may file a claim as provided in Section 1-04.5(3). If the Engineer denies the claim, the Owner and Contractor shall at the Contractor's request, go to mediation as provided in 1-04.5(4). If the claim is not resolved at mediation, the Contractor may file suit in the King County Superior Court at Seattle, Washington as provided in Section 1-04.5(5).

1-04.5(2) DISPUTE

1. In the event that the Contractor disagrees with any Change Order, including any written directive by the Engineer, the Contractor shall, not later than the close of the second full Working Day following the date the Engineer issued the Change Order or written directive, notify the Engineer in a signed, dated writing, that it disputes the decision. In the event that the dispute involves quantities, the written dispute notice shall be filed before the placement of the changed quantities and not later than the close of the second full Working Day. Failure by the Contractor to timely furnish notice of a dispute waives the right to make any further dispute or claim regarding the subject.

2. The written dispute notice shall identify the Change Order or other Engineer's directive being disputed and a brief explanation of the basis for the dispute.

3. The Engineer may issue a written decision or may ask in writing for further information.
4. If the Engineer asks for further information, the Contractor shall within ten (10) Working Days of the date of that request, furnish a dated, signed written supplemental statement containing the following:
 - a. The date of the supplemental written statement;
 - b. The date of the directive to perform the disputed Work;
 - c. The nature and circumstances which caused the dispute;
 - d. The Contract provisions that relate in any way to the dispute;
 - e. The estimated additional dollar cost, if any, of performing the disputed Work and how that estimate was determined, in detail;
 - f. An analysis of the accepted critical path schedule in effect at the time the dispute arose, showing the schedule change or disruption, if the Contractor is asserting a schedule change or disruption; and
 - g. Any additional information the Engineer requests.
5. The Contractor may request an extension of time to furnish the additional written information. The Engineer will determine if such additional information would be helpful and if the Engineer determines it would be helpful, the Engineer will specify a reasonable extension of time. Any extension must be approved in writing by the Engineer.
6. Within ten (10) Working Days from the date the Contractor filed the dispute or the receipt of requested information, the Engineer will issue a written decision regarding the dispute. At the Engineer's sole discretion, the Engineer may furnish written notice to the Contractor extending the time for the decision for a period not to exceed 20 additional Working Days.
7. If the Engineer rejects any or all of the Contractor's dispute, the Engineer's notice will contain the reasons for the rejection. Payment for approved Work will be made in accordance with Section 1-09.4. In the event that the Engineer fails to decide the dispute within the ten (10) Working Days, unless extended by the Engineer, the Contractor may deem the dispute rejected and file a claim in accordance with Section 1-04.5(3).
8. The dispute shall not relieve the Contractor from the obligation to promptly proceed with the Work, including the disputed work. The Contractor shall timely perform all Work unless directed in writing by the Engineer to stop work in whole or in part. When performing any disputed Work, the Contractor shall keep complete records of actual costs and actual time incurred, identifying extra costs and extra time associated with the disputed Work.

1-04.5(3) CLAIMS

Both the Owner and the Contractor have an interest in the prompt and fair resolution of claims. The purpose of the claims provisions of this Contract is to create a clearly defined process intended to fairly resolve claims at the earliest possible point in time without unnecessary delay or expense, including the expense of mediation or litigation. In order for the Engineer to accurately evaluate and decide claims, the Contractor shall be responsible for presenting all relevant information in support of a claim at the claims stage, including the information required in this Section. The Contractor shall not be permitted to present information known or available to the Contractor (including Subcontractors and Suppliers), schedules or schedule logic, or, basis of the dispute, at the mediation or litigation stage which was not presented to the Engineer at the time the claim was presented.

1. If the Contractor disagrees with the Engineer's decision under Section 1-04.5(2), the Contractor may file a claim as provided in this Section:
 - a. Claims of less than \$50,000 shall be filed within ten (10) Working Days of the date of the Engineer's written notice under Section 1-04.5(2).
 - b. Claims equal to or greater than \$50,000 shall be filed within twenty (20) Working Days of the date of the Engineer's written notice.
2. The Contractor may request an extension for filing a claim. Any extension must be approved in writing by the Engineer.
3. The Contractor waives any claim for additional payment if a claim is not filed as provided in this Section.
4. All claims shall be in writing, shall contain sufficient detail to enable the Engineer to ascertain the basis and amount of the claim, shall be certified by the Contractor as stated below and shall be filed with the Engineer.
5. No claim will be allowed after the Completion Date.

At a minimum, the following information shall accompany each claim:

- 1) The date of filing the claim;
- 2) A detailed factual statement supporting the claim, including all relevant dates, locations, and Bid items of Work affected by the claim;
- 3) The date on which facts arose which gave rise to the claim;
- 4) The name and title of each individual involved in or knowledgeable about the subject of the claim;
- 5) The specific provisions of the Contract which support the claim and a statement of the reasons why such provisions support the claim;

- 6) If the claim relates to a decision of the Engineer in which the Contract provides that the Engineer's decision is final, the Contractor shall set out in detail all facts supporting its position relating to the decision of the Engineer;
- 7) A copy of the original, signed notice of dispute, as well as a copy of any supplemental documentation provided to the Engineer and a copy of any written communication from the Engineer regarding the dispute;
- 8) Copies of diaries, meeting minutes, notes, or field records prepared contemporaneously with any oral communications that relate to the subject of the claim;
- 9) Copies of any additional documents that support the claim (manuals which are standard to the industry governing the Work in which the claim is being made may be included by reference; however, the Contractor shall clearly state which part or parts of the industry standard the Contractor is relying upon);
- 10) If an extension of Contract Time is sought:
 - a. The specific Days and dates for which it is sought,
 - b. The specific reasons the Contractor believes a time extension should be granted,
 - c. The specific provisions of Section 1-08.8 under which an extension is sought, and
 - d. The Contractor's written explanation of the reason for the requested change including the method of analysis used and where appropriate referring to the relevant schedules; supporting documents such as look-ahead, as-built, daily records, time sheets, and the basis for the rates of affected tasks that the base CPM was founded on, may be required by the Engineer;
- 11) If additional compensation is sought, the Contractor shall document the exact dollar amount sought supported by a breakdown of: the dollar amounts as-Bid, and/or as incorporated into the Contract via approved Change Orders, the actual amounts accrued, and the additional compensation sought. The basis of any of these amounts may be required by the Engineer. The Contractor shall provide the documentation of the amount in the following categories, as applicable:
 - a. Direct Labor (hours): This includes regular time rates and overtime rates for all employees and work classifications. These rates shall include the basic prevailing wage and fringe benefits, the current rates for Federal Insurance Compensation Act (FICA), Federal Unemployment Tax Act (FUTA) and State Unemployment Tax Act (SUTA), the company's present rates for Medical Aid and Industrial Insurance premiums and the planned payments for travel and per diem compensation. This excludes overhead and profit.
 - b. Direct Material (invoices): The invoice cost for Contractor-supplied Materials. This cost shall include freight and handling charges and applicable taxes as shown on the invoices issued by the Supplier. This excludes overhead and profit.
 - c. Direct Equipment (hours, invoice, and rental agreements as applicable): Separately identify each piece of equipment utilized and the operation cost for each piece of equipment including all fuel, oil, lubrication, ordinary repairs, maintenance, and all other costs incidental to furnishing and operating the equipment, and the standby rate for each piece of equipment. This excludes overhead and profit. All equipment shall have detailed descriptions, including but not limited to year, make, and model.
 - 1) Where the equipment is Contractor owned through outright ownership or through a long-term lease, the Contractor shall document the Contractor's actual internal Bid rates (Bid rates are the equipment rates used by the Contractor or Subcontractors for bidding and project cost tracking; these rates typically exclude labor for operation; if an operator is included in a Bid rate, it should be indicated as such).
 - 2) Where the equipment is rented and operated by the Contractor, the Contractor shall document the actual rental amounts including the actual rates for the equipment (excluding labor for operation).
 - 3) Where the equipment is rented from a third-party with operator, the Contractor shall document the actual rental amounts including the actual rates for the equipment (including labor for operation).
 - d. Services (invoices/agreements): All invoices and agreements (additional breakdown may be required by the Engineer). This excludes overhead and profit.
 - e. Overhead and Profit (percentages that apply to direct costs in a, b, c, & d above): Markups for overhead and profit shall be provided in detail under the following categories listed below. General company overhead, project overhead, and profit percentages shall be provided for each affected Bid items of Work, the mobilization Bid item, and for the project as a whole.
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.

3. The parties will select a mutually agreed upon mediator. If they are unable to agree, the Owner and the Contractor shall seek the selection of the mediator by the King County Superior Court at Seattle, Washington.
4. Mediation will occur within sixty (60) Days of the filing of the Contractor's written notice to mediate unless both the Contractor and the Engineer agree to a later date or unless the mediator's schedule requires a later date.
5. Each party will participate in the mediation process in good faith and may be represented at the mediation by lawyers. The parties shall each bear their respective costs incurred in connection with this procedure, except that they shall share equally the fees and expenses of the mediator and the costs of the facility for the mediation.
6. If mediation does not resolve the disputed matter, the Contractor may pursue judicial resolution as provided in Section 1-04.5(5).

1-04.5(5) LITIGATION

If mediation does not resolve the disputed matter, the Contractor may serve and file a lawsuit in King County Superior Court in Seattle, Washington. Such lawsuit shall be filed within one hundred eighty (180) Days of the Physical Completion Date or within 90 Days of the completion of the mediation process under Section 1-04.5(4), whichever is later. This requirement cannot be waived except by an explicit waiver signed by the Owner. The failure to file a lawsuit within the 180 Day period shall result in the Engineer's decision rendered in accordance with Section 1-04.5(3) being final and binding on the Contractor and all its Subcontractors.

Actions by the Contractor against the Owner or between the Contractor and its Subcontractors arising out of a common set of circumstances shall, upon demand by the Owner, be submitted in a single forum or the Owner may consolidate such claims or join any party necessary to the complete adjudication of the matter in the same forum.

1-04.5(6) AUDITS

All claims by the Contractor for additional compensation shall be subject to audit in accordance with Section 1-09.12. In the event of an audit the Contractor shall make available to the Owner all documents that the Engineer requests within seven (7) days of a written notice from the Engineer. Failure of the Contractor or a Subcontractor of any tier, to maintain or retain sufficient records to allow the Owner to verify all or a portion of the claim or to permit Owner access to the books and records of the Contractor, or Subcontractor of any tier, shall constitute a waiver of the portion of the claim that cannot be documented and shall bar any recovery for any portion of a claim that cannot be documented.

1-04.6 VARIATION IN ESTIMATED QUANTITIES

The Contractor will be paid for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantity of Work performed under a unit item varies from the original Bid quantity, payment will be made using the unit Contract Price unless adjusted as described herein.

The adjusted final quantity will be determined by starting with the final accepted quantity measured after all Work under an item has been completed. From this amount, subtract any quantities included in Additive Change Orders accepted by both parties. Then, to the resulting amount, add any quantities included in deductive Change Orders accepted by both parties. The final result of this calculation shall become the adjusted final quantity and the basis for comparison to the original Bid quantity.

1. **Increased Quantities.**
Either party to the Contract will be entitled to renegotiate the price for that portion of the adjusted final quantity in excess of 125% of the original Bid quantity. The price for that excess quantity will be determined in accordance with Section 1-09.4.
2. **Decreased Quantities.**
Either party to the Contract will be entitled to an equitable adjustment if the adjusted final quantity of Work performed is less than 75% of the original Bid quantity. The equitable adjustment shall be based upon and limited to three factors:
 - a. Any increase or decrease in unit costs of labor, materials or equipment, utilized for Work actually performed, resulting solely from the reduction in quantity;
 - b. Changes in production rates or methods of performing Work actually done to the extent that the nature of the Work actually performed differs from the nature of the Work included in the original Contract; and
 - c. An adjustment for the anticipated contribution to unavoidable fixed cost and overhead from the units representing the difference between the adjusted final quantity and 75% of the original Contract quantity.
3. **Adjustment Limits.**
The following limitations shall apply to renegotiated prices for increases or equitable adjustments for decreases or both:

- a. The equipment rates shall be actual cost but shall not exceed the rates set forth in the AGC/WSDOT Equipment Rental Agreement (referred to in Section 1-09.6) that is in effect at the time the Work is performed.
- b. No payment will be made for extended or unabsorbed home office overhead and field overhead expenses to the extent that there is an unbalanced allocation of such expenses among the Contract Bid items.
- c. No payment for consequential damages or loss of anticipated profits will be allowed because of any variance in quantities from those originally shown in the Contract.
- d. The total payment (including the adjustment amount and unit prices for Work performed) for any item that experiences an equitable adjustment for decreased quantity shall not exceed 75 percent of the extended amount originally Bid for the item.

If the adjusted final quantity of any item does not vary from the quantity shown in the Bid Form by more than 25%, then the Contractor and the Owner agree that all Work under that item will be performed at the original Contract unit price.

When ordered by the Engineer, the Contractor shall proceed with the Work pending the determination of the cost or time adjustment for the variation in quantities.

The Contractor and the Owner agree that there will be no cost adjustment for decreases if the Owner has entered the amount for the item in the Bid Form only to provide a common Bid basis for Bidders.

1-04.7 DIFFERING SITE CONDITIONS - "CHANGED CONDITIONS"

1. The Contractor shall provide written notice to the Engineer, if the Contractor encounters:
 - a. Pre-existing subsurface or latent physical conditions at the Project Site differing materially from those indicated in the Contract and information available to bidders; or
 - b. Pre-existing unknown physical conditions at the Project Site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract and information available to bidders.

The notice shall be submitted before the conditions are disturbed on the date of discovery or promptly the next Working Day. The Contractor shall not proceed with that portion of the Work until ordered to do so.

2. Upon notification by the Contractor, or when the Engineer suspects a differing site condition, the Engineer will promptly investigate the alleged changed condition, and:
 - a. If the Engineer determines that differing site conditions do not exist, the Contractor will be notified in writing. Should the Contractor disagree with such determination, the Contractor may file a written notice of dispute with the Engineer pursuant to the requirements of Section 1-04.5; or
 - b. If the Engineer finds that conditions are materially different and cause an increase or decrease in the Contractor's cost of, or the time required for, performing all or any part of the Work, the Engineer will make an equitable adjustment in the payment for the performance of the Work in accordance with Section 1-09.4 or the time for performance in accordance with Section 1-08.8.

No equitable adjustment will be allowed unless the Contractor has given the written notice required in Subsection 1 above; provided, however, the time for giving the written notice may be extended by the Engineer for good cause. The time for giving written notice will not be extended beyond the time the Contractor knew, or should have known, of the existence of the differing site condition.

If there is a decrease in the cost or time required to perform the Work, failure of the Contractor to notify the Engineer of the differing site condition shall not affect the Engineer's right to make an adjustment in cost or time.

1-04.8 PROGRESS ESTIMATES AND PAYMENTS

Engineer issued progress estimates or payments for any part of the Work shall not be used as evidence of performance or quantities. Progress estimates serve only as a basis for making payments. The Engineer may revise progress estimates any time before the Certificate of Completion is issued.

1-04.9 USE OF BUILDINGS OR STRUCTURES

Any building or Structure within the Right of Way that is not to remain during the Work or that may be used by the Contractor will be indicated in the Contract.

1-04.10 USE OF MATERIALS FOUND ON THE PROJECT SITE

With written approval of the Engineer, the Contractor may use on the Project Site:

1. Stone, gravel, sand, or other Mineral Aggregates obtained from on-site excavations.
2. Timbers removed in the course of the Work.

Approval to use these materials will be granted provided the Materials satisfy the requirements of the Contract, and are not required for other use by the Contract or for use as selected Materials.

The order of disposal for suitable materials obtained in the course of the Work shall be as follows unless the Engineer approves otherwise:

- 1) Used as selected material, pursuant to Section 2-10.2(1).

- 2) Delivered to the Engineer as salvage pursuant to Section 2-02.3(7).
- 3) Disposed of in accordance with Section 2-01.2.

1-04.11 PROJECT CLEANLINESS AND FINAL CLEANUP

The Contractor shall keep the Project Site clean and remove debris, refuse, and discarded materials of any kind resulting from the Work.

Disposal of waste shall be in accordance with Section 1-07.3 and all applicable provisions of the Contract.

The Contractor shall also perform final cleanup as provided in this Section. The Engineer will not establish the Physical Completion Date until final cleanup is completed. The street Right of Way, Material sites, quarry or pit sites, borrow sites, sites used for temporary waste storage, and all other areas the Contractor occupied to do the Work shall be left neat, clean, and presentable. The Contractor shall not remove warning, regulatory, or guide signs unless approved otherwise in writing by the Engineer. In the event that the Contractor shall fail to complete clean-up, the Owner, after providing five (5) Days notice, may complete the clean-up and deduct the costs thereof from moneys due or to become due to the Contractor.

The Contractor shall:

1. Remove and dispose all rubbish, surplus Materials not identified as salvage by the Owner, discarded Materials, falsework, piling, camp buildings, temporary structures, Equipment, and debris;
2. Remove from the Project Site, all unneeded rock, aggregate and similar material left from grading, surfacing, or paving unless the Contract specifies otherwise or the Engineer approves otherwise;
3. On all concrete and asphalt pavement Work, clean the pavement and dispose of the wash water and debris in accordance with SMC 22.800-22.808, which prohibits such discharges from entering the Storm Drain system;
4. Sweep and clean structure decks and properly dispose of wash water and debris in accordance with SMC 22.800-22.808, which prohibits such discharges from entering the Storm Drain system;
5. Clean out from all Culverts and Storm Drains, inlets, catch basins, maintenance holes and Water Main valve chambers, within the limits of the Project Site, all dirt and debris of any kind that results from Contractor's operations;
6. Level and fine grade all excavated material not used for backfill where the Contract requires;
7. Fine grade all slopes and around all Structure piers, bents, and abutments;
8. Ensure that the final cleanup of clearing and grubbing disposal sites and borrow sites (Sections 2-01.2 and 2-10.2(2)), and any temporary waste sites created by the Contractor, have been performed in accordance with the requirements specified in the Grading Ordinance, permits, property agreements, and the Contract;
9. Upon completion of grading and cleanup operations at any privately-owned site for which a written agreement between the Contractor and property owner is required, the Contractor shall obtain and furnish to the Engineer a written release from all damages, duly executed by the property owner, stating that the restoration of the property has been satisfactorily completed;
10. Remove all temporary construction stormwater pollution prevention elements within 5 Working Days after final site stabilization, or after they are no longer needed, whichever is later;
11. Prior to the completion of the Work, all new, replaced and disturbed topsoil shall be amended per Sections 8-01 and 8-02;
12. Remove warning, regulatory, or guide signs once removal has been approved in writing by the Engineer; and
13. Clean, remove, and dispose of any debris of any kind that results from Contractor's operations within or outside of the Project Site(s).

All costs associated with cleanup and disposal shall be incidental to the Work and shall be included in the various Bid items in the Bid and at no additional cost to the Owner.

SECTION 1-05 CONTROL OF WORK**1-05.1 AUTHORITY OF ENGINEER**

1. The Engineer shall be satisfied that all Work is being done in accordance with the requirements of the Contract. The Contract gives the Engineer authority over the Work. Whenever it is so provided in this Contract, the decision of the Engineer shall be final, provided that such decision may be challenged in accordance with Section 1-04.5.
2. The Engineer's decisions will be final on all questions including, but not limited to, the following:
 - a. Quality and acceptability of Materials and Work;
 - b. Substitutions;
 - c. Measurement of Bid item Work;
 - d. Acceptability of rates of progress on the Work;
 - e. Interpretation of the Contract;
 - f. Determination as to the existence of differing site conditions;
 - g. Fulfillment of the Contract by the Contractor;
 - h. Payments under the Contract including equitable adjustments;
 - i. Suspension of the Work;
 - j. Determination as to Unworkable Days;
 - k. Reviews of submittals; and
 - l. Determination of Notice to Proceed Date, Substantial Completion Date, and Physical Completion Date (See Section 1-01.3.)
3. If the Contractor fails to respond promptly to the requirements of the Contract or orders from the Engineer:
 - a. The Engineer, per Section 1-05.8, may use the Engineer's forces, other Contractors, or other means to accomplish the Work; and
 - b. The Owner, per Section 1-09.9(3), will not be obligated to pay the Contractor, and will deduct from the Contractor's payments, additional costs when any other means must be used to carry out the Contract requirements or Engineer's orders.
4. The Engineer may suspend, per Section 1-08.6, all or part of the Work, if:
 - a. The Contractor fails to fulfill Contract terms, to carry out the Engineer's orders, or to correct unsafe conditions of any nature;
 - b. The Contractor fails to comply with environmental implementation requirements, corrective action, testing, or self-reporting requirements;
 - c. The weather or other conditions are unsuitable; or
 - d. It is in the public interest.
5. Nothing in the Contract requires the Engineer to provide the Contractor with direction or advice on how to do the Work. If the Engineer takes no exception or renders an opinion on any method or manner for doing the Work or producing Materials, it will not:
 - a. Guarantee that following the method or manner will result in compliance with the Contract;
 - b. Relieve the Contractor of any risks or obligations under the Contract; or
 - c. Create any liability for the Owner.

1-05.2 AUTHORITY OF ASSISTANTS AND ELECTRICAL SAFETY OBSERVER**1-05.2(1) AUTHORITY OF ASSISTANTS**

The Engineer may appoint Assistants to assist in determining if the Work and Materials meet the requirements of the Contract. Assistants have the authority to reject defective material and suspend Work that is being done improperly, subject to the final decision of the Engineer. Assistants may exercise such additional authority as may be delegated to them by the Engineer.

Assistants and Inspectors are not authorized to accept Work, to accept Materials, to issue instructions, or to give advice that is contrary to the Contract. Work done or Material furnished which does not meet the Contract requirements shall be at the Contractor's risk and shall not be a basis for a claim even if the Inspectors or Assistants purport to change the Contract to provide for such Work or Material, to approve or accept such Work or Material, or issue any instructions contrary to the Contract.

Although Assistants may advise the Contractor of any faulty Work or Materials or infringements of the terms of the Contract, failure of the Engineer or Assistant to do so shall not constitute acceptance or approval.

1-05.2(2) AUTHORITY OF ELECTRICAL SAFETY OBSERVER

The Engineer will assign an Electrical Safety Observer when Work is performed in a substation; in a switchyard; in an energized vault; at other locations containing high voltage lines or equipment; when installing ducts and vaults in the vicinity of

energized underground electrical transmission or distribution system; or when any excavation is within fifteen (15) feet of an energized electrical transmission or distribution system as indicated by "marked for locate" per Section 1-07.17(1); or as otherwise deemed necessary by the Engineer. The only exception shall be when the Contract specifies, and contains a Bid item, that the Contractor provides a qualified Contractor's Electrical Safety Observer who is approved by SCL.

The Contractor shall provide a minimum seven (7) Working Days advance notice request for an Electrical Safety Observer; see Section 1-07.28 for notification requirements. The Contractor shall provide an adequate description of the Work to be performed, equipment to be used, and the Work duration. When the Contractor, or its Subcontractor, does not schedule work on a specific Day or Days, the Contractor shall provide one (1) Working Day advance notice unless arranged otherwise with the Electrical Safety Observer. Failure to inform the Electrical Safety Observer, at least one (1) Working Day in advance of a change in the Contractor's schedule where an Electrical Safety Observer is not required, will result in the Owner back charging the Contractor for the Electrical Safety Observer's services at the site.

The Electrical Safety Observer's involvement with site safety will be limited to electrical safety, unless the Contract indicates otherwise. The Electrical Safety Observer will notify the Contractor of electrical hazards and may instruct, warn, and if necessary, direct Contractor and Subcontractor personnel to move a safe distance from electrical system components. In addition to all other rights of the Owner and Engineer, the Electrical Safety Observer will have the authority, but not the duty, to stop Work if the Electrical Safety Observer judges that there is any hazard that immediately imperils life, health, or property.

The Contractor shall have sole responsibility for safety pursuant to the Contract. The presence or absence of an Electrical Safety Observer shall not alter the Contractor's responsibility for the occupational health and safety of individuals on the Project Site and shall not relieve the Contractor of any of its legal obligations for worker safety.

The Contractor shall designate a Contractor's On Site Electrical Lead and shall ensure that each Subcontractor designates a Subcontractor's On Site Lead when Work requires an Electrical Safety Observer. The On Site Electrical Lead shall be authorized to resolve safety related issues raised by the Engineer, Assistant, or Electrical Safety Observer. The Contractor shall ensure that such On Site Electrical Lead is physically present at the work requiring an Electrical Safety Observer. Each On Site Electrical Lead, whether Contractor's or Subcontractor's, shall identify himself or herself to the Electrical Safety Observer at the briefing/tailgate conference.

At the briefing/tailgate conference on each Day when an Electrical Safety Observer is required, the Contractor shall notify the Electrical Safety Observer of the work to be performed requiring an Electrical Safety Observer. Each On Site Electrical Lead, or Contractor's or Subcontractor's onsite supervisory representative, shall complete and sign the Safety Watch Checklist and Certification of Training form provided by the Electrical Safety Observer before work begins for which an Electrical Safety Observer is required.

1-05.3 SUBMITTALS

The Contractor shall not perform Work or obtain Material or begin fabrication based on a required submittal until the Engineer has returned the approved submittal. If a submittal is required by the Contract, any related portion of Work performed by the Contractor prior to the Engineer's return of an approved submittal, or as otherwise specified by the Engineer, shall be solely at the Contractor's risk and expense.

The City encourages the use of environmentally friendly materials and methods. Unless the Contract or Engineer specifies otherwise, electronic submittals will be used to the maximum extent feasible. When hard copy (paper and other media) submittals are required, the Contractor shall use recycled and reusable products including recycled content paper.

Section 1-05.3 addresses submittals required by the Engineer. Other documentation required by the Owner will be specified in the applicable sections.

The electronic submittal received by the Engineer shall be considered the official and governing document unless a non-electronic submittal is required. The date on which the submittal is received by the Engineer (either physically or electronically) shall be considered the date submitted, except that submittals received by the Engineer on a non-Working Day, or received after 4:00 PM on a Working Day, shall be considered submitted on the following Working Day.

1-05.3(1) GENERAL

1-05.3(1)A ELECTRONIC SUBMITTALS

Electronic submittals shall be submitted via email or other means as mutually agreed. Electronic submittals shall be in PDF (Portable Document Format) unless otherwise specified in the Contract or on Engineer provided forms. PDF is a digital file format that captures all the elements of a printed document as an electronic image such that it can be viewed, navigated, printed, electronically searched and copied, and/or forwarded via email. Whenever practicable, text documents shall be electronically converted to PDF (as opposed to scanned images), to enhance the capability of electronic searching and copying. The PDF file, when printed, shall fulfill the page size and format requirements of the applicable specification.

Email addresses will be provided at the preconstruction conference.

1-05.3(1)B NON-ELECTRONIC SUBMITTALS

Typically, non-electronic submittals are any oversize document or document that requires an original signature or ink stamp. Non-electronic submittals shall be submitted as a hard (paper, or required media) copy. Examples of submittals required in this format include: formal correspondence, pay estimates, change orders, drawings greater than 11"x17" in size, and drawings requiring a Professional Engineer's or Licensed Professional's stamp.

Faxes and other forms of copies are not acceptable as submittals when an original signature or ink stamp are required.

1-05.3(1)C BULK SAMPLE SUBMITTALS

Bulk sample submittals, unless the Engineer agrees otherwise, shall include Mineral Aggregate, hot mix asphalt, geotextile, and pipe. Bulk sample submittals received on or after 2:00 PM on a Working Day will be considered to have been received on the following Working Day. Unless directed otherwise, bulk samples shall be delivered to:

SPU Materials Laboratory
707 South Plummer Street
Seattle, WA 98134
(206) 386-1800

1-05.3(1)D SUBMITTAL NUMBERING

The use of unique identifying numbers for submittals is considered helpful in facilitating Contract-related communications and is therefore encouraged by the Owner. During the preconstruction meeting, the Engineer may propose one or more submittal numbering procedures to be used during the course of the Work. The Contractor shall cooperate and comply with all such submittal numbering proposals.

1-05.3(1)E GENERAL SUBMITTAL DISTRIBUTION AND FORMAT SUMMARY

In order to be considered by the Engineer, submittals and items of correspondence shall be submitted in the format set forth in the following table. The Engineer's review/approval period shall run from the date of receipt of a submittal or item of correspondence delivered in the required format.

This table also provides a general overview of typical format and distribution requirements for various documents and submittals that may be required by the Contract and for correspondence and responses from the Engineer. However, specific submittal requirements are more fully described in the Specification Sections pertaining to them, and to the extent there are conflicts between the table below and the detailed Specification requirements, the detailed Specification requirements shall govern unless directed otherwise by the Engineer.

GENERAL SUBMITTAL DISTRIBUTION AND FORMAT SUMMARY TABLE

Submittal/Correspondence Description		Required Format For Review Period Or Formal Action To Begin		Additional Paper Copies ¹
		Preferred	Alternate	
FROM CONTRACTOR	All Oversize documents (larger than 11" x 17"), regardless of submittal type	Paper	None	3
	As-built Drawings	Paper	None	3
	Bulk Samples	Paper Form per Spec, delivered with sample	None	N/A
	Catalogue Cut Sheets	Paper	Electronic	1
	Change Orders	Paper	Electronic ²	0
	CPM Schedules	Electronic	Paper	3
	Cutting/Patching Proposal	Electronic	Paper	1
	E-mails	Electronic	None	0
	Environmental Pollution Control Plans	Electronic	Paper	1
	Field Memos	Electronic	Paper	0
	Health and Safety Plans	Electronic	Paper	1
	Letters, Formal Correspondence	Paper	None	0
	Modification Proposal	Electronic	Paper	1
	Operations and Maintenance Manuals	Paper	None	3
	Pay Estimate	Paper	Electronic ²	0
	Product Data	Electronic	Paper	1
	Project Equipment List	Electronic	Paper	1
	Project Labor List	Electronic	Paper	1
	Reports	Electronic	Paper	1
	Request for Information (RFI)	Electronic	Paper	1
	Request for Material Source Approvals	Electronic	Paper	1
	Schedule of Values	Electronic	Paper	0
	Shop Drawings with Professional Engineering Stamp	Paper	None	3
	Soil Transfer Forms	Electronic	Paper	1
	Subcontractor Approval Requests	Electronic	Paper	1
	Submittal Schedule	Electronic	Paper	1
	Substitution Requests	Electronic	Paper	1
	Test Results	Electronic	Paper	1
	Warranties	Paper	None	1
	Waste Management Plan	Electronic	Paper	1

Submittal/Correspondence Description		Required Format for Review Period or Formal Action to Begin		Additional Paper Copies ¹
		Preferred	Alternate	
FROM ENGINEER	Design Changes	Electronic	Paper	
	E-mails	Electronic	None	
	Field Directive	Paper	Electronic	
	Field Memos	Electronic	Paper	
	Inspection Reports	Paper	Electronic	
	Letters, Formal Correspondence	Paper	None	
	Preconstruction Meeting Announcement	Paper	Electronic	
	Progress Meeting Minutes	Electronic	Paper	
	RFI Responses	Electronic	Paper	
	Submittal Review Responses	Electronic	Paper	

NOTES ON THE TABLE:

1. These are minimum requirements in addition to the original submittal.
2. The Engineer requires originals of signed pages for this document. The Contractor may submit an electronic version to trigger the Engineer's approval process, but shall then additionally provide a paper version with original signature prior to completion of the Engineer's review/approval process.

1-05.3(2) SUBMITTAL TRANSMITTAL AND RESPONSE FORM (ST&R FORM)

This form is required by several City departments, and when so required, shall be filled out by the Contractor and emailed as part of the complete package along with the submittal in PDF to the Engineer. The form shall also be attached to the original hardcopy of the submittal when required and delivered to the Engineer or SPU Materials Laboratory. The Engineer will complete the form and respond electronically.

1-05.3(3) CONTRACTOR SUBMITTAL DELIVERY AND REVIEW TIMELINES

The submittal received date for submittals will be as specified in Section 1-05.3(1).

Unless otherwise specified in the Contract, the Contractor shall allow the Engineer the following submittal review timelines:

1. 20 Working Days for Structural Shop Drawings.
2. 15 Working Days for other Shop Drawings.
3. 10 Working Days for all other submittals.

The Contractor shall transmit submittals in a timely manner to meet Contract Time, and shall take into consideration the possibility of resubmittal.

Submittals required prior to or at the preconstruction conference in accordance with Section 1-05.3(5) shall be provided and will be reviewed as indicated in the Contract or as mutually agreed. Unless specified or mutually agreed otherwise, submittals received prior to the preconstruction conference shall be considered as received at the preconstruction conference for purposes of determining the start of the Engineer's review cycle.

1-05.3(4) SUBMITTAL CONTROL DOCUMENT

At the preconstruction conference, the Contractor shall be prepared to discuss the nature and timelines of all submittals as they relate to the various portions of the Work, to the Bid items, and to the proposed progress schedule. The Contractor shall prepare and submit to the Engineer a Submittal Control Document listing all submittals and when these submittals shall be delivered to the Engineer. The Contractor may reference the critical path method (CPM) schedule and show submittals in the CPM. Major submittals and review times shall be shown in the CPM. The initial Submittal Control Document shall be submitted with the base CPM schedule, see Section 1-08.3(1) for time requirements.

The data in the submittal control document shall not relieve the Contractor of the obligation to comply with the requirements regarding Contract Time. Unless all submittals are shown in the CPM schedule, the Contractor shall review the Submittal Control Document at least every thirty (30) days and update or correct the Submittal Control Document as necessary. It is recommended that the Submittal Control Document updates be submitted concurrently with critical path method (CPM) schedule updates. Submittal Control Document updates are incidental to the Bid items and not required when all pending submittals are shown on the CPM schedule.

At a minimum, the Submittal Control Document and/or CPM schedule shall address Material submittals, Shop Drawings, and the standard submittals listed in Section 1-05.3(1).

1-05.3(5) EARLY SUBMITTALS

The following shall be submitted prior to or at the preconstruction conference:

1. Preliminary CPM schedule; see Section 1-08.3
2. Submittal Control Documents; see Section 1-05.3(4)
3. Waste and disposal sites; see Section 1-07.3

When applicable, the following shall be submitted and approved by the Engineer prior to mobilization to the Project Site:

- 1) Construction Stormwater and Erosion Control Plan (CSECP); see Section 8-01
- 2) Tree, Vegetation, and Soil Protection Plan (TVSPP); see Section 8-01
- 3) Spill Plan (SP); see Sections 1-07.15(1) and 8-01
- 4) Health and Safety Plan (if applicable); see Section 1-07.1(2)
- 5) SDOT Street Use Permit and approved Traffic Control Plan; see Sections 1-07.6 and 1-10.

1-05.3(6) CONTRACTOR'S REQUEST FOR INFORMATION, SUBSTITUTIONS, AND DEVIATIONS

The Engineer's review of requests for clarification, approved submittal deviations, and/or substitution shall not relieve the Contractor from responsibility for the submittal review timeline requirements of the Contract.

Request for Information (RFI): Information requests shall be submitted to the Engineer using the Request for Information (RFI) form. The Contractor shall follow the procedures specified in Section 1-05.3(1) and will supplement the form with any other appropriate information. The required notice form titled: "Request for Information" will be provided in an electronic format by the Engineer upon request.

Each Contractor's Request for Information shall use this form in the format provided, completed in its entirety, supplemented with other appropriate information as may be specified elsewhere, and submitted with attachments necessary for proper review by the Engineer. Requests for Information submittals found to contain errors, or unapproved deviations or variations from the Contract, may be determined by the Engineer to be out of compliance with the Contract. Any costs or delays associated with non-conforming Requests for Information are the Contractor's sole responsibility and the Engineer has no requirement to extend Contract Time or to make additional payments.

If the Contractor considers any comment by the Engineer on the returned Request for Information to constitute a change, the Contractor shall make such written notice in accordance with Section 1-04.4.

Submittal Update (Deviation): Where the Contractor intends to change, deviate from, or supplement a previously reviewed submittal accepted by the Engineer, the Contractor shall resubmit the originally reviewed submittal to the Engineer for additional review indicating the proposed changes or deviations from the originally reviewed submittal and shall clearly state reasons, additional calculations, additional details, as necessary to support such need for change or deviation.

Contract Deviation Request: Any request for a variation or deviation from the Contract (other than substitutions addressed below) shall allow the Engineer a minimum 10 Working Days to review and return the request and shall clearly state reasons, additional calculations, additional details, as necessary to support such request or deviation from the Contract. The Engineer reserves the right to deny requests for deviation from the Contract if the request is not in the best interest of the Engineer, or if time or resources are not available for review. The Engineer's decision will be final and the Contractor shall Bid accordingly.

Substitution: All Materials, equipment or methods proposed by the Contractor as a substitution for a brand name, trademark, patent number, proprietary process, or specified item with an "or equal" allowance shall be addressed in the submittal. In making a request for substitution, the Contractor's submittal shall demonstrate that the proposed substitution fully meets or exceeds the requirements in Section 1-06.1(A) and the Specification Section. Any request to use a substitute for a non-proprietary material, equipment, or process shall be proposed through correspondence and shall allow the Engineer 10 Working Days to review and return the request and shall fully meet or exceed the requirements in Section 1-06.1 and the applicable Specification section.

1-05.3(7) TECHNICAL SUBMITTAL DESCRIPTIONS

Where a submittal contains information with more than one option (catalog cut, manufacturer's written instructions, recognized trade association standard, "specified designation", etc.), the option applicable to the submittal shall be clouded or highlighted.

The type of submittal shall be included in the description. Examples include: Shop Drawings, Product Data (catalog cuts, illustrations), Sample(s) (bulk of Materials), Design Data (calculations, mix designs, analyses), Test Reports (Report by authorized professional of private testing laboratory or certified individuals), Manufacturer's Certificate of Compliance, Manufacturer's Written Instruction (installation of a product, system or Material, including special notices and Material Safety Data Sheets (MSDS)), Operating and Maintenance Manuals, Critical Path Schedule, As-Built Drawings, or others as deemed applicable.

1-05.3(8) SUBMITTAL REVIEW AND POSSIBLE RESPONSE ACTIONS

The Engineer's submittal review is to ensure compliance with the requirements of the Contract. The Engineer's review shall not extend to consideration of the Contractor's means, methods, techniques, sequences or procedures of construction or to safety precautions or programs incident thereto, except where a specific means, method, technique, sequence, or procedure of construction is required or prohibited by the Contract or a regulatory agency. Engineer review of a

separate Bid item does not indicate approval of the assembly in which the Bid item functions. The Contractor is responsible for confirming and correlating all dimensions; fabrication and construction techniques; coordinating the Contractor's Work with that of all other trades; and the satisfactory performance of the entire Work in strict accordance with the Contract.

The following notations shall be interpreted as follows:

1. "No Exception Taken": Submittals returned and marked "No Exception Taken" authorize the Contractor to proceed with the portion of the Work, proceed with the fabrication, or to obtain Materials or Equipment, as contained in the submittal. Where more than one submittal is required for a portion of the Work or for a greater portion of Work containing the submittal portion, no portion of Work shall proceed until all submittals required of that Work portion are returned by the Engineer without requiring resubmittal. The Contractor shall not revise in any way, a portion of the Work or fabrication based on submittal returned "No Exception Taken". Revisions shall only be made in compliance with the requirements of Section 1-05.3(10).
2. "Make Corrections Noted": Submittals returned and marked "Make Corrections Noted" authorize the Contractor to proceed with the portion of Work covered by the submittal as long as the corrections noted are followed; for submittals prepared by Professional Engineer, the Contractor shall provide a return copy showing the noted corrections. The Contractor is responsible for the submittal, thus if they do not agree with the corrections noted, they shall resubmit before proceeding with that portion of the Work.
3. "Submit Specified Item": Submittals returned and marked "Submit Specified Item" indicate an incomplete submittal and does not authorize the Contractor to perform that portion of the Work. The "specified item" shall be resubmitted in accordance with Section 1-05.3(10).
4. "Rejected" or "Revise and Resubmit": Submittals returned and marked "Rejected" or "Revise and Resubmit" indicate the submittal is incomplete or does not comply with Contract requirements, and shall be resubmitted with appropriate changes before proceeding with that portion of the Work; see Section 1-05.3(10).

1-05.3(9) ACTIONS BY CONTRACTOR BEFORE SUBMITTAL RETURN BY ENGINEER

The Contractor shall bear all risks associated with purchasing any Material or equipment or for beginning fabrication or beginning any Work requiring a submittal, until the Contractor has received a submittal response from the Engineer that authorizes the Contractor to proceed with the portion of the Work.

1-05.3(10) RESUBMITTALS

Submittals returned to the Contractor marked "Rejected", "Revise and Resubmit", or "Submit Specified Item" will include the Engineer's comments. The Contractor shall address the Engineer's comments in its resubmittal, and the Contractor's correction shall be clearly identified in the resubmittal to assist the Engineer's review.

"Resubmittal" shall be considered a new submittal; a new submittal review period of the duration specified for the original submittal shall begin upon receipt of the resubmittal by the Engineer. See section 1-05.3(3) for review timelines. No extension of Contract Time will be allowed for resubmittals.

1-05.3(11) SHOP DRAWINGS

The Contractor shall submit supplemental Shop Drawing with calculations as required for the performance of the Work. The drawings shall be on sheets measuring 24 by 36-inches, 11 by 17-inches, or on sheets with dimensions in multiples of 8 ½ by 11-inches. All drawings shall be to scale. The design calculations shall be on sheets measuring 8 ½ by 11-inches. They shall be legible, with all terms identified, and may include computer printouts.

The drawings and calculations shall be provided far enough in advance of actual need to allow for the review process by the Engineer, which may involve rejection, revision, or resubmittal; see Section 1-05.3(8). Shop Drawing will be submitted, and re-submitted if required, by the Contractor in an orderly sequence so that they may be reviewed by the Engineer in the order in which they are received, without creating delay. The Contractor may suggest the sequence in which these Shop Drawing submittals are to be reviewed by the Engineer in order to meet the critical path scheduling needs.

Shop Drawing and calculation submittals shall be prepared by (or under the direction of) a Professional Engineer, licensed under Title 18 RCW, State of Washington, and shall carry the Professional Engineer's signature and seal. See Section 1-05.3(12).

If more than the specified number of Working Days are required for the Engineer's review of any individual submittal or resubmitted, an extension of time will be considered in accordance with Section 1-08.8.

Before submittal of Shop Drawings, the Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, Materials, catalog numbers and similar data and reviewed or coordinated each Shop Drawing with other Shop Drawings and with the requirements of the Contract. See Section 1-04.2 regarding the precedence of figured and scaled dimensions. Copies of the Drawings or Standard Plans as substitutes for Shop Drawings will be rejected and shall require resubmittal.

1-05.3(11)A SHOP DRAWINGS VARYING FROM CONTRACT REQUIREMENTS

Submittal of a shop drawing that varies from the Contract requirements shall be considered a Contract deviation request and shall comply with the requirements of Section 1-05.3(6).

1-05.3(12) SUBMITTAL PREPARED BY PROFESSIONAL ENGINEER OR OTHER LICENSED PROFESSIONAL

Where the Contract requires a submittal prepared by a Professional Engineer or other licensed professional (Surveyor, Landscape Architect, Architect, etc.) hereafter referred to as "Licensed Professional", all drawings and design

calculations shall be prepared by (or under the direct supervision of) a Licensed Professional, with current license under Title 18 RCW, State of Washington, who is registered and qualified in the applicable branch of engineering, or a special profession. Any plan details or drawings requiring design calculations by a Licensed Professional shall be considered a Shop Drawing.

Each sheet of the drawings shall carry the following:

1. Licensed Professional's original signature, date of signature, original seal, and registration number,
2. The initials and dates of all participating design professionals,
3. Clear notations of all revisions including identification of who authorized the revision, who made the revision, and the date of the revision,
4. The Contract PW (public works) number, Contract title, and sequential sheet number. These shall also be on all related documents, and
5. Identify where each drawing sheet will be utilized by referencing the Contract Drawing sheet number and related item or detail.

Design calculations shall carry on the cover page the Licensed Professional's original signature, date of signature, original seal, and registration number. The cover page shall also include the Contract PW number, Contract title, and sequential index to calculation page numbers.

A State of Washington Licensed Professional, licensed under Title 18 RCW, State of Washington, and qualified in the applicable branch of engineering or a special profession may be retained to check, review and certify Shop Drawings and calculations of an individual who is licensed in another state provided that the following conditions are satisfied:

- 1) That the Work being reviewed was legally prepared by an individual holding valid registration in another state in the applicable branch of engineering or a special profession.
- 2) The Washington State Licensed Professional conducts independent calculations and reviews all technical matters contained within the subject Work, Drawings, Specifications, legal requirements, technical standards, and other related documents; and has verified that the design meets all applicable Specifications and is in agreement with the specific site conditions and geometry.
- 3) All plan sheets shall carry the Washington State Licensed Professional's original signature, date of signature, original seal, and registration number.
- 4) The Washington State Licensed Professional's independent calculations shall be submitted for review along with the drawings. The independent calculations shall carry on the cover page the Washington State Licensed Professional's original signature, date of signature, original seal, and registration number. The cover page shall also include the following: the Contract PW number, Contract title, and sequential index to calculation page numbers
- 5) The Washington State Licensed Professional shall keep a signed and sealed copy of the falsework, formwork plans, independent calculations, Specifications and other related documentation that represents the extent of the review.

1-05.3(13) AS-BUILT RECORDS SUBMITTALS

Where Contractor provided as-built records are required in the Contract, the Contractor shall keep at the Project Site Shop Drawings and other drawings accurately detailing deviations from the original drawings. As-built records shall include all changes to the Work including, but not limited to: design changes, fabrications, assembly diagrams, and other as-built records as specified in the Contract and as required by the Engineer.

As-built records shall be kept up-to-date as the Work requiring as-built records progresses and shall be available for review by Engineer.

The Contractor shall submit to the Engineer an as-built record set showing all as-built information required in the Contract within ten (10) Working Days of completion of that portion of the Work. These as-built records shall be accurate, clean, clear, easily readable, and shall become the official as-built record set for the applicable portion of the Work. All as-built records are required for Physical Completion.

1-05.3(14) CONTRACTOR'S FAILURE TO PROVIDE OR COMPLETE SUBMITTALS AND PROGRESS OF THE WORK

All submittals required of the Contractor shall be provided by the Contractor. The Contractor acknowledges that its failure to timely provide or complete all submittals will place an extra and unnecessary burden on the Engineer in meeting other obligations and exposes the Owner to increased costs associated with delay in the completion of the Work. The Contractor agrees that failure to provide and complete all submittals is cause for the Engineer to withhold payment in the progress estimate for any and all Bid items where the Contractor has failed to comply with the specified requirement to provide such submittal. No claim for delay or extension to Contract Time will be allowed for time lost due to Contractor's late submittal or to Contractor's resubmittal.

1-05.4 CONFORMITY WITH AND DEVIATIONS FROM DRAWINGS AND STAKES

Work performed shall be in conformity with the lines, grades, cross sections, data, and dimensions indicated on the Drawings or staked by the Engineer. These stakes and marks will govern the Contractor's Work. The Contractor shall take full responsibility for detailed dimensions, elevations, and slopes measured from them.

Where specific tolerances are stated in the Contract, the Work shall be performed within those stated limits. The Engineer will determine if the Work is in conformity with the lines, grades, cross sections, and dimensions given. The Engineer's decision on whether the Work is in conformity shall be final, as provided in Section 1-05.1.

Prior to undertaking each part of the Work, the Contractor shall carefully study and compare the Contract to existing field conditions by checking and verifying pertinent figures shown in the Contract, and checking and verifying all applicable field measurements. The Contractor shall promptly provide written notice to the Engineer of any conflict, error, discrepancy, or omission that the Contractor discovers.

The Contractor shall not deviate from the requirements in the Contract except when authorized to do so, in writing, by the Engineer.

1-05.5 CONSTRUCTION STAKES

All Work constituting the practice of engineering or land surveying shall require NAVD88 as the vertical datum, and NAD83 (1991) as the horizontal datum (see Standard Plan 001).

Before the Engineer will provide survey controls and offset points, the Contractor shall first provide a Project Site that has been prepared for safe and orderly installation of such controls and points as determined by the Engineer.

The Engineer will furnish survey controls and offset points for Work areas at the Project Site as follows:

1. Two (2) intervisible horizontal control points for each continuous street between consecutive intersections, and no less than two (2) points per 1320 linear feet measured along the centerline of street. "T" intersections branching off a street with no Work on that branching street will have one control point at the T intersection. T intersections branching off a street with Work on that branching street will have horizontal control points per the first sentence of this item 1.
2. Two (2) vertical control points for each continuous street between intersections within the Project Site. A minimum of two (2) points per 1320 feet will be provided.
3. Offset points to establish line and grade for the following City of Seattle owned utilities:
 - a. Water Main, hydrants, valve boxes and chambers;
 - b. Storm Drain, inlets, catch basins, culverts, maintenance holes, and Sewer, not including side Sewer; and
 - c. SCL electrical conduit and vaults.

The Standard Specifications also address additional survey controls provided by the Engineer for specific constructions (see Section 2-09.3(2) and, unless the Contract specifies otherwise, where the Engineer may provide additional staking (see Sections 2-04.1(1), 2-09.1, 2-10.3(6), 2-13.3(1)A, 4-04.3(5), 5-04.3(4)C1, 7-18.3(1)A, 8-11.3(3), 8-15.3(1), 8-15.3(5), 8-16.1, and 8-18.3(1)).

The Contractor shall use these Owner-furnished survey controls and offset points for all necessary calculation and survey for the Contractor to complete the Work, and the Contractor shall assume full responsibility for detailed dimensions, elevations, lines, grades, excavation slopes, and as may be required of the Work measured from these Engineer furnished survey controls and offset points.

Survey controls and offset points provided by the Engineer for the Contractor shall be preserved and not be disturbed.

Should any discrepancy in survey controls or offset points provided by the Engineer be identified by the Contractor, then upon discovery, the Contractor shall immediately notify the Engineer of such discrepancy including providing timely follow up with written notice. In the absence of such immediate notification and follow-up written notice, the Contractor shall be responsible and liable for any error in alignment or grade at no separate or additional cost to the Owner.

Any claim by the Contractor for extra compensation or delay due to error in the Engineer provided survey controls and offset points will not be allowed unless the original Engineer provided survey controls and offset points still exist undisturbed. For straight line and straight grade, no less than three (3) consecutive points shall be provided by the Contractor to determine variation from a straight line or grade.

The Contractor's surveyor shall be, or shall work under the direct supervision of, a Land Surveyor licensed under Title 18 RCW in the State of Washington and regularly performing survey in the State of Washington. The Contractor shall keep updated survey field notes in a standard field book and in a format generally accepted in the Land Survey profession. These field notes shall include all survey work performed by the Contractor's surveyor in establishing line, grade and slopes for the Work. Copies of these field notes shall be provided to the Engineer upon request.

The Contractor shall submit a legible and complete copy of all Contractor surveyor notes and calculations used in the Contractor's survey to the Engineer, and such shall become the property of the Owner.

The Contractor shall submit any request for Engineer provided surveying services at least ten (10) Working Days in advance of the need. The Engineer cannot guarantee that such request can be performed by the Engineer; however, should the Engineer determine he or she can perform such survey or portion thereof, then such additional survey by the Engineer and the Engineer's hourly dollar rates shall be agreed to by the Contractor before such survey work begins. The Contractor agrees that all Engineer cost for providing such survey will be charged to the Contractor and deducted from each progress payment as it may come due; see Section 1-07.16(1) regarding responsibilities associated with monumentation.

If the survey work provided by the Contractor does not meet the standards of the Engineer, of WAC 196, or of RCW 18.43, the Contractor shall, upon the Engineer's written notice, remove the individual or individuals doing the Contractor's survey work. Thereafter, the survey work may be completed by the Engineer by such means as the Engineer deems appropriate at the Contractor's sole expense, and all cost for completing the Contractor's survey work by the Engineer will be addressed in accordance with Section 1-09.9(3).

All costs for survey work required to be performed by the Contractor shall be included in the Bid item prices Bid for the Work.

1-05.6 INSPECTION OF WORK AND MATERIALS

Work performed and Materials furnished will be subject to inspection by the Engineer. The Contractor shall give the Engineer a minimum one (1) Working Day advance notice when Work and Materials are ready for inspection, testing, review, approval, or retesting as applicable. The Contractor shall provide such facilities as are deemed necessary by the Engineer for sufficient and safe access to the Work or to the Material. Such facilities shall include, but not be limited to, walkways, railings, ladders, platforms, support systems, safety harnesses, safety lines, and safety nets.

Upon request, the Contractor shall furnish, without charge, samples of Materials used, or to be used in the Work, for inspection and testing, to ensure conformance with the Contract. If Materials are tested and approved for the Work, then used for purposes not connected with the Work, the cost of testing and inspection will be deducted from monthly progress estimates for payment to the Contractor. Materials used without inspection may be ordered removed and replaced, and the cost of the Material, including the work associated with the removal and replacement of the Material and any other Material and Work impacted by the removal and replacement, shall be at the Contractor's sole expense.

If the Contractor fails to furnish Material samples and/or test results as required in the Contract, the Engineer and/or testing agency designated by the Engineer, may sample and/or test the Material at the Contractor's sole expense in order to verify compliance of the Material with the Contract. Reimbursement for sampling and/or testing performed by the Engineer will be charged to the Contractor at a rate of \$85.00 per hour. Reimbursement for sampling and/or testing performed by a testing agency will be by invoice from the designated testing laboratory, except for Laboratory retest and field revisit charges as specified in Section 1-05.7. These charges will be deducted from moneys due or to become due the Contractor on monthly progress estimates.

Inspections, tests, measurements and other actions taken by the Engineer are for the sole purpose of assisting the Engineer to assess, whether or not Work, Materials, rate of progress, and quantities, comply with the Contract. These actions by the Engineer shall not relieve the Contractor from determining independently that full compliance with the Contract is met at all times, or relieve the Contractor from any responsibility for the Work.

Upon request, the Contractor shall remove or uncover any portions of completed Work for inspection by the Engineer. After inspection, the Contractor shall make restoration conforming to the standards required by the Contract. The costs associated with uncovering, removing, testing, and retesting as applicable, and restoring exposed Work and Material, including compensating the Engineer for any additional professional services required including retesting and as specified in Section 1-05.7, shall be at the Contractor's sole expense, if:

1. The exposed Work or Material proves to be unacceptable, or
2. The exposed Work or Material was placed without authority or due notice to the Engineer.

If the exposed work proves to be acceptable and the Contractor had performed the original work with the authority of and due notice to the Engineer, payment will be made as extra Work for all costs associated with the uncovering, removing, and restoration and the Contract Time will be adjusted.

Where Work is required to be performed on any facility of a public agency, railroad, or utility, or to the satisfaction of any federal, State, County, or municipal agency, their representatives shall be permitted to inspect the Work when the Contractor is advised by the Engineer to permit them to do so. The Contractor agrees that such inspection shall not make such representatives a party to the Contract, nor shall it constitute an interference with the rights of the Owner or the Contractor.

1-05.7 DEFECTIVE WORK AND UNAUTHORIZED WORK

The Engineer will not pay for unauthorized Work or defective Work. Work and Materials that do not conform to the requirements of the Contract, Work done beyond lines and grades shown in the Drawings or established by the Engineer, or extra Work and Materials furnished without written approval of the Engineer will be considered defective Work or unauthorized Work as applicable. Such Work shall be at the Contractor's risk and sole expense and may be rejected, even if the Work has been inspected, or a progress estimate is made for payment.

Upon order of the Engineer, such Work or Material shall immediately be remedied, removed, replaced, or disposed of and all costs, including retesting costs as applicable, associated with such Work shall be at the Contractor's sole expense. Such Laboratory retesting costs of replaced or reconstructed Work or Material will be charged to the Contractor in accordance with the following schedule:

Test Name	Specification Section	Unit	Cost of Unit Retest
Field Soil Density Reading	2-11	Each	\$100.00
Concrete Pavement Coring	5-05	Each	\$200.00
Asphalt Pavement Coring	5-04.3(9)	Each	\$200.00
Soil/Aggregate Sieve Analysis	9-03.15	Each	\$150.00
Moisture-Density Curve	2-11	Each	\$250.00
L A Abrasion	9-03.15, 9-03.17	Each	\$150.00
Soundness	9-03.17	Each	\$100.00
Organic Content	9-14.1(4)	Each	\$50.00
Epoxy Pull Out Test	6-02.3(24)	Each	\$250.00
Asphalt Concrete Sieve Analysis	5-04.3(7)A		\$200.00
Asphalt Concrete Binder Content	5-04.3(7)A		\$100.00
Asphalt Concrete Air Void Analysis (V _A)	5-04.3(7)A		\$200.00

Each field revisit by the Laboratory for the purpose of retesting previously identified unacceptable Work or Material will be charged to the Contractor at the rate of \$100.00 each visit. For test methods not shown herein, the rate for reimbursement will be charged to the Contractor as the actual cost of the test incurred by the Owner.

These charges will be deducted from moneys due or to become due the Contractor on monthly progress estimates.

Failure on the part of the Engineer or an Assistant to reject defective Work or unauthorized Work shall not release the Contractor from the Contractor's contractual obligations, be construed to mean acceptance of such Work or Material by the Owner or, after the Completion Date, bar the Owner from recovering damages or obtaining such other remedies as may be permitted by law.

No adjustment in the Contract Time or compensation will be allowed because of delays in the performance of the Work as a result of correcting defective Work or unauthorized Work.

1-05.8 ENGINEER'S RIGHT TO CORRECT AND RECOVER COSTS FOR DEFECTIVE OR UNAUTHORIZED WORK

If the Contractor fails to remedy defective Work and/or unauthorized Work within the time specified in a written notice from the Engineer, or fails to perform any part of the Work required by the Contract, the Engineer may correct and remedy such Work, as may be identified in the written notice, by such means as the Engineer deems necessary, including the use of Owner forces.

If the Contractor fails to comply with a written notice to remedy what the Engineer determines to be an emergency situation due to defective or unauthorized Work or due to the Contractor failing to perform Work, the Engineer may have the defective Work and unauthorized Work, or both as may apply, corrected immediately, have the rejected Work removed and replaced, or have Work the Contractor fails to perform completed by using in-house or other forces. An emergency situation is any situation that, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

The Contractor shall pay any direct or indirect costs incurred by the Engineer to correct or remedy the Contractor's defective or unauthorized Work, or any damage resulting from the Contractor's refusal or failure to perform any Work. This includes the cost to repair or replace work completed by others damaged due to correcting or removing the Contractor's defective or unauthorized work. Payment will be deducted by the Engineer from any payments due to the Contractor.

No adjustment in Contract Time or in compensation or both will be allowed because of the delay in the performance of the Work attributable to Owner's exercise of the right provided by this Section nor shall the exercise of this right diminish the Owner'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.

1-05.9 EQUIPMENT AND MACHINERY

Equipment and machinery shall be adequate for the purposes used, kept in good working condition, and operated by competent operators. The Contractor is alerted that several Specification Sections have additional specific equipment or machinery requirements. The Contractor is also alerted that several Specification Sections have requirements for the Engineer to have safe and convenient access to plant and Contractor equipment for observation and sampling purposes, and may also require a safe and convenient temporary area for on-site testing purposes; see Sections 1-09.1, 1-09.2, 5-04.3(1), 5-05.3(3), 6-02.3(4).

At the Engineer's request, the Contractor shall provide, at no additional cost to the Owner, an operating and maintenance manual for each model or type of mixing, placing, or processing equipment before using it in the Work. The Contractor shall also provide test instruments to confirm whether the equipment meets operating requirements, such as vibration rate, revolutions per minute, or any other requirements.

The Contract may require automatically controlled equipment for some operations. If the automatic controls on such equipment fail, the Contractor may operate the equipment manually for the remainder to that normal Working Day, provided the method of operation produces results otherwise meeting the Specifications. Continued operation of the equipment manually beyond this Working Day will be permitted only by specific authorization of the Engineer.

The Engineer will reject equipment that repeatedly breaks down or fails to produce results within the required tolerances. The Contractor shall promptly replace rejected equipment. Rejection and replacement of equipment shall give the Contractor no right to additional compensation or time.

1-05.10 GUARANTEES AND WARRANTIES

The obligations under this Section shall survive Completion or termination of this Contract.

1-05.10(1) GENERAL GUARANTY AND WARRANTY

The Contractor shall furnish to the Engineer any guaranty or warranty furnished as a normal trade practice in connection with the purchase (by the Contractor or a Subcontractor) of any equipment, materials, or items incorporated in the Work.

If within one year after the Physical Completion Date, defective Work or unauthorized Work is discovered, the Contractor shall promptly, upon written notice of the Engineer, return and in accordance with the Engineer's instructions, either correct such Work, or if such Work has been rejected by the Engineer, remove it from the Project Site and replace it with non-defective and authorized Work, all at no additional cost to the Owner. If the Contractor does not promptly comply with the written notice to correct defective and unauthorized Work as may apply, or if an emergency exists, the Engineer reserves the right to have defective Work and unauthorized Work corrected or removed and replaced as provided by Section 1-05.8.

The Contractor agrees the above one year limitation shall not exclude or diminish the Owner's rights under any law to obtain damages and recover costs resulting from defective Work and from unauthorized Work discovered after one year but prior to the expiration of the legal time period set forth in RCW 4.16.040 limiting actions upon a Contract in writing, or liability expressed or implied arising out of a written agreement.

1-05.10(2) WARRANTY OF TITLE

The Contractor shall warrant good title to all Materials, Supplies, and equipment purchased for, or incorporated in, the Work. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing Materials or labor, to recover under any bond given by the Contractor for their protection, or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the Owner.

The provisions of this paragraph shall be inserted in all subcontracts and Material Contracts, and notice of its provisions shall be given to all persons furnishing materials for the Work when no formal Contract is entered into for such Materials.

1-05.11 FINAL INSPECTION

1-05.11(1) SUBSTANTIAL COMPLETION DATE

When the Contractor considers the Work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. To be considered substantially complete the following conditions shall be met:

1. The Owner must have full and unrestricted use and benefit of the facilities, both from an operational and safety standpoint; and
2. Only minor incidental Work, replacement of temporary substitute facilities, or corrective or repair Work remains to reach physical completion of the Work.

The Contractor's request shall list the specific items of Work in subparagraph two immediately above that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the Work with the Contractor to determine the status of completion.

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

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

The above process shall be repeated until the Engineer establishes the Substantial Completion Date.

The Engineer may also establish the Substantial Completion Date unilaterally.

1-05.11(2) FINAL INSPECTION AND PHYSICAL COMPLETION DATE

The Engineer will not make the final inspection until the physical Work required by the Contract has been completed. This Work shall include final cleanup (see Sections 1-04.11 and 1-07.24), providing the Engineer with all required submittals (see Section 1-05.3), completing operational testing and submitting operation and maintenance (O&M) manuals when specified in the Contract (Sections 1-05.3 and 1-05.11(3)), and all extra Work ordered by the Engineer. If the Engineer believes a written release from a private property owner (see Sections 1-04.11 and 1-07.24) is being arbitrarily withheld, the Engineer may, at his or her sole discretion, accept that portion of the Work involved.

When the Contractor considers the Work physically complete and ready for final inspection, the Contractor, by written notice, shall request the Engineer to schedule a final inspection. Within five (5) Days, the Engineer will set a date for final

inspection. The Engineer and the Contractor will then make a final inspection, and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the Work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective Work shall be pursued vigorously, diligently, and without interruption until physical completion of the listed deficiencies.

If action to correct the listed deficiencies is not initiated within seven (7) Days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies. Such steps may include the correction of defects using in-house forces or by others. In such case, the direct and indirect costs incurred by the Engineer shall be deducted from moneys due or becoming due the Contractor. Such indirect or direct costs shall include in particular, but without limitation to, compensation for additional professional services required in cost of repair and replacement of the Work of others which is destroyed or damaged by correction, removal, or replacement of the Contractor's deficient Work. The Contractor will not be allowed an extension of Contract Time because of a delay in the performance of the Work attributable to the exercise of the Engineer's right hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the Owner, 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 all the obligations of the Contractor under the Contract have been fulfilled.

1-05.11(3) OPERATIONAL TESTING, AND OPERATION AND MAINTENANCE (O&M) MANUALS

It is the intent of the Owner to have at the Physical Completion Date, a complete and operable system with all of the information necessary to operate and maintain the system. Therefore, when the Work involves the installation of machinery or other mechanical equipment; street lighting; electrical distribution and transmission systems; signal systems; irrigation systems, buildings; or other similar Work, it may be desirable for the Engineer to have the Contractor operate and test the Work for a period of time after final inspection but prior to the Physical Completion Date. Whenever items of Work are listed in the Project Manual for operational testing, they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, Materials, or equipment that proves faulty, or are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period, shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

Prior to operational testing or as may be arranged by the Engineer, the Contractor shall submit to the Engineer, three (3) sets of operating and maintenance (O&M) manuals for the item to be tested. During operational testing, the Contractor shall accommodate the Engineer in understanding and applying O&M manual instruction and recommendation. Should inconsistencies between the O&M manual and actual operation or actual maintenance be discovered, the Contractor shall provide three (3) sets of Supplier provided amendment addressing all correction.

Each O&M manual shall include the following:

1. A title indicating its contents permanently labeled on the outside of the binder;
2. A cover sheet identifying equipment with the process or assembly with which it is used, according to:
 - a. Location,
 - b. Specification Section number and title, and
 - c. Engineer's Drawing (sheet) number;
3. A table of contents; and
4. A text as prepared by the manufacturer and including the following information or materials, as applicable:
 - a. Equipment operating instructions including start-up and shut-down procedures, safety precautions, and instructions on specific controls;
 - b. Electrical test reports, including electrical system and motor test reports;
 - c. Mechanical test reports, including factory running tests and performance rating tests for motorized equipment;
 - d. Shop Drawings;
 - e. Assembly drawings;
 - f. Parts list;
 - g. Bill of Materials;
 - h. Wiring diagrams;
 - i. Maintenance instructions to cover any routine operation required to insure the satisfactory performance and longevity of the equipment, such as lubrication instructions, lists of lubricants, and belt tensioning;
 - j. Maintenance summary forms;
 - k. Manufacturer's warranty.

Manuals shall be bound in three ring or spiral binders with plastic or other stain resistant covering. Manuals shall be 8-1/2 x 11 inches in size except for oversize Drawings which shall be bound in fold-out fashion or folded and placed inside a

bound in envelope. Multiple thinner binders are preferred to extra-large and bulky binders where subdivisions of the contents permit. Equipment operating instructions and test reports shall be bound in front of maintenance instructions and other materials.

Unless the Contract specifies otherwise, the costs for power, fuel, labor, Material, Supplies, and everything else needed to successfully complete operational testing, shall be included in the various Bid item prices related to the system being tested, unless specifically set forth otherwise in the Bid Form.

Operational and test periods, when required by the Engineer, shall not affect a manufacturer's guaranties or warranties furnished under the terms of the Contract.

1-05.12 COMPLETION AND CONTRACT CLOSE OUT

1. After the Physical Completion Date is established and after all obligations of the Contract, other than retainage release have been completed, the Engineer will submit an acceptance package and supporting documents to CPCS per Section 1-09.9(4)A.

2. On behalf of the City, CPCS will establish the contract Completion Date, submit the Notification of Completion to the state agencies, and publish notice of the Completion Date per Section 1-09.9(4)B.

3. After all legal requirements are met, retainage will be released according to the priority and process under RCW 60.28 and Section 1-09.9(4)C.

1-05.13 SUPERINTENDENTS, LABOR, AND EQUIPMENT

1-05.13(1) GENERAL

The Contractor shall keep a copy of the Contract at the Project Site, give the Work the attention required to maintain scheduled progress, and cooperate with the Engineer and the Engineer's Assistants in the administration of the Work.

The Contractor shall be present, in person, or be continuously represented by a duly authorized representative at the Project Site during progress of the Work. The Contractor shall designate in writing before starting the Work, a project manager or superintendent, who shall be experienced, capable of understanding the Contract, and able to supervise the performance of the Work. The superintendent or project manager shall meet the supplemental bidder responsibility criteria found in Section 1-02.2. The Contractor's superintendent or project manager shall have full authority to represent and act for the Contractor. Written notice given to the project manager or superintendent shall be as binding as if given to the Contractor.

The Work shall be under the continuous supervision of competent personnel experienced in the class of Work being performed. Incompetent, careless, or negligent employees (including supervisors) shall be discharged by the Contractor upon written order of the Engineer. A superintendent that repeatedly fails to follow a written order, direction, instruction, or determination from the Engineer shall, upon written order from the Engineer, immediately be removed from the Project Site by the Contractor. The Contractor shall then designate in writing to the Engineer, a new superintendent. Failure to comply with such order shall be sufficient grounds for termination of the Contract.

Machinery and equipment shall comply with the requirements of Section 1-05.9.

1-05.13(2) RESERVED

1-05.13(3) CONSTRUCTION STORMWATER POLLUTION PREVENTION COORDINATION

The Contractor shall assign a Construction Stormwater and Pollution Prevention Coordinator (CSPPC) to the Work and shall identify the CSPPC at the preconstruction conference. CSPPC responsibilities shall be formally assigned to one or more of the Contractor's supervisors who are actively involved in the planning and management of field Contract activities. Alternates may be identified. The CSPPC is responsible for ensuring the Contractor's compliance with all City of Seattle, other local jurisdictions, county, state, and federal, construction stormwater pollution prevention requirements and shall be available on call 24 hours per day through the duration of the Work. The CSPPC shall be listed on the Emergency Contact List required under Section 1-05.13(4).

The CSPPC shall have overall responsibility for compliance and coordination of the following plans and submittals for the project as defined in Section 8-01, and any other pollution prevention elements on the project:

1. Construction Stormwater and Erosion Control Plan (CSECP)
2. Tree, Vegetation and Soil Protection Plan (TVSPP)
3. Spill Plan (SP)
4. Temporary Discharge Plan (TDP)
5. Temporary dewatering

A lead shall be identified for each plan listed above. The identified Leads shall have the responsibilities and shall meet the requirement as specified below. CSPPC may be the lead on any or all elements. If the Contractor identifies multiple leads, the Contractor shall clearly identify the responsibilities of each.

1-05.13(3)A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL)

The Contractor shall assign a Certified Erosion and Sediment Control Lead to the Work and identify the responsible party at the preconstruction conference. The CESCL shall be listed on the Emergency Contact List required under Section 1-05.13(4).

The CESCL shall have authority to act on behalf of the Contractor and shall be available, on call, 24 hours per day throughout the period of construction. The Certified Erosion and Sediment Control Lead (CESCL) is responsible for ensuring the Contractor's compliance with all City of Seattle, other local jurisdictions, county, state, and federal erosion and sediment control and water quality requirements.

The CESCL shall have, for the life of the Contract, a current Certificate of Training in Construction Site Erosion and Sediment Control from a course approved by the Washington State Department of Ecology or Certified Professional in Erosion and Sediment Control™ (CPESC®).

Ecology maintains a list of ESC training and certification providers at: www.ecy.wa.gov/programs/wq/stormwater

For additional information on the CPESC® certification, go to: www.cpesc.net

1-05.13(3)B TREE, VEGETATION AND SOIL PROTECTION LEAD

The Contractor shall assign a Tree, Vegetation and Soil Protection Lead to the Work and shall identify the responsible party at the preconstruction conference. This individual shall be listed on the Emergency Contact List required under Section 1-05.13(4).

The Tree, Vegetation and Soil Protection Lead shall be given the authority and shall be responsible for ensuring compliance with Tree, Vegetation and Soil Protection; see Sections 1-07.16 and 8-01.

1-05.13(3)C SPILL PREVENTION AND RESPONSE LEAD

The Contractor shall assign a Spill Prevention and Response Lead to the Work and shall identify the responsible party at the preconstruction conference. This individual shall be listed on the Emergency Contact List required under Section 1-05.13(4).

The Spill Prevention and Response Lead shall be given the authority and shall be responsible for ensuring compliance with Section 1-07.15(1) and 8-01.

1-05.13(3)D TEMPORARY DISCHARGE LEAD

When temporary discharge of process water, groundwater, or concentrated and collected stormwater is a component of the Work, the Contractor shall assign a Temporary Discharge Lead to the Work. This individual shall be identified at the preconstruction conference and shall be listed on the Emergency Contact List required under Section 1-05.13(4).

The Temporary Discharge Lead shall be responsible for ensuring compliance with applicable permits, requesting permits, and Section 1-07.6 and Section 8-01, preparing and updating the Temporary Discharge Plan, measuring flow, performing and coordinating water quality testing, preparing reports and record keeping as required by permits.

1-05.13(3)E TEMPORARY DEWATERING LEAD

When dewatering is a component of the Work, the Contractor shall assign a Temporary Dewatering Lead to the Work and shall identify the responsible party at the preconstruction conference. The individual shall be listed on the Emergency Contact List required under Section 1-05.13(4).

The Temporary Dewatering Lead shall be responsible for dewatering as provided for in Section 2-08.

1-05.13(4) EMERGENCY CONTACT LIST

The Contractor shall submit an Emergency Contact List to the Engineer no later than five (5) Calendar Days after the date the Contract is executed. The list shall include, at a minimum, the Prime Contractor's Project Manager, or equivalent, the Prime Contractor's Project Superintendent, the Traffic Control Supervisor, and the individuals fulfilling the lead requirements as specified in Section 1-05.13(3). The list shall identify a representative with delegated authority to act as the emergency contact on behalf of the Prime Contractor and include one or more alternates. The emergency contact shall be available upon the Engineer's request at other than normal working hours. The Emergency Contact List shall include 24-hour telephone numbers for all individuals identified as emergency contacts or alternates.

1-05.14 COOPERATION WITH OTHER CONTRACTORS

The Owner reserves the right to perform other work at or near the Project Site (including Material sites) with forces other than those of the Contractor. This work may be done with or without a Contract. Should such Work be underway or subsequently undertaken within or adjacent to this project, the Contractor shall cooperate with all other Contractors or other forces, and conduct the Work so that the operations of both suffer the least interference and delay. Should there be disagreement between the Contractors, or the Contractor and the Engineer, as to the manner and order of performing Work, such disagreement will be resolved by the Engineer. The Engineer's decision in these matters shall be final, as provided in Section 1-05.1.

If the Contract gives notice of other work that may affect the Work, or other work is apparent from the Project Site investigation required by Section 1-02.4, the coordination of the Work shall be taken into account by the Contractor, and any resulting cost shall be included in the various Contract Bid items that make up the Work.

1-05.15 METHODS OF SERVING NOTICES

All notices shall be in writing and are considered delivered and service complete when:

1. Delivered by certified or registered mail to the other party at their last given address;
2. Delivered in person to the other party; or
3. Delivered to an authorized representative of the other party at the Project Site.

1-05.16 WATER AND POWER

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the Work. See the exception for water in Section 2-12.

1-05.17 ORAL AGREEMENTS

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

SECTION 1-06 CONTROL OF MATERIALS**1-06.1 APPROVAL OF MATERIALS PRIOR TO USE**

The City encourages the use of environmentally friendly Materials and recycled material when applicable.

Prior to use, the Contractor shall notify the Engineer of all proposed Materials. The Contractor shall use the Request for Acceptance of Material Sources (RAMS) form to identify the source for all Materials proposed to be used on the project.

All equipment, Materials, and articles incorporated into the permanent Work:

1. Shall be new, unless the Contract permit otherwise;
2. Shall meet the requirements of the Contract and be accepted by the Engineer in accordance with Section 1-05.3;
3. May be inspected or tested at any time during their preparation and use;
4. Shall not be used in the Work if they become unfit after being previously approved; and
5. Materials shall be verifiable by shipping invoice, certification, load tickets, or other means acceptable to the Engineer.

1-06.1(A) NAMED PRODUCTS

Specified products are occasionally called for by manufacturer or name in the Contract in order to establish a basis for certain Materials, equipment, or processes. Wherever products are specified by name, the specification will be treated as if the phrase "or equal" appears after the named product whether "or equal" is indicated or not, unless indicated as without substitution per Section 1-06.1(C). The phrase "or equal" does not imply the availability of such "or equal" product(s). The terms "or equal" and "or approved equal" shall be considered synonymous.

When a product is mentioned by name, it includes products that will measure up to the designated standards of the named product(s) mentioned as an "equal". The burden shall be with the Contractor to demonstrate that the proposed product is equal. The proposed "equal" product shall meet the essential requirements of the Contract and items 2. to 5. of Section 1-06.1(B). The Engineer's review of the proposed product for "as equal" status will be final.

1-06.1(B) REQUEST FOR SUBSTITUTION OF MATERIAL

If the Contractor prefers to substitute a different material than what has been specified, the Contractor shall obtain the written approval of the Engineer before incorporating the substitute product into the Work. In making a request for substitution of Materials, the Contractor's submittal shall demonstrate the substitution meets the essential requirements of the Contract and the following:

1. Is equal and shows a cost savings to the Owner, or superior without a cost increase to the Owner;
2. Is equal or superior in all respects to the material, equipment, or process specified;
3. Is of equal or superior value in the essential and material requirements;
4. Is equal or superior in functionality and at a minimum qualitatively equal or identical; and
5. Has the same or better guarantee or warranty as the item specified.

The Engineer reserves the right to deny requests for substitution if the substitution is not in the best interest of the Owner, or if time or resources are not available for review. The Engineer's decision will be final. The Contractor shall Bid according to the material specified in the Contract. See Section 1-05.3 for submittal requirements.

The Contractor shall not be granted any time extension for review of substitution proposals. The Contractor shall be responsible for the performance of substituted materials. The Engineer reserves the right to revoke the use of substituted materials at any time. No time or cost will be granted related to the substitutions.

1-06.1(C) MATERIALS WITHOUT SUBSTITUTION

If a Material, product, equipment, or processes is specified "without substitution" or "no substitution", there will be no consideration of substitution.

1-06.2 SAMPLES AND TESTS FOR ACCEPTANCE OF MATERIALS

The Contractor shall deliver representative samples (from the Contractor, producer, manufacturer, or fabricator) to the Engineer without charge before incorporating Material into the Work. Samples, not already provided for testing pursuant to Section 1-03.1(4) 6) a), shall be provided in sufficient time and quantities to allow testing by the Engineer before use. The Engineer may require samples be submitted at any time. The Contractor, including Subcontractor at any tier, shall allow the Engineer full and unrestricted access to its facilities for inspection, observation, sampling and testing purposes. Samples not taken by or in the presence of the Engineer's qualified tester will not be accepted for test, unless so permitted by the Engineer.

Material testing shall comply with any special methods of testing set forth in the Contract, the Washington State Department of Transportation Materials Manual, or applicable designated, recognized standards of national organizations (see Section 1-01.2(1) for the standard acronyms of designated recognized standards organizations used throughout the Contract). This will apply to field tests, as well as to laboratory tests. The designated, recognized standard in effect on the Day of the Advertisement for Bids for the Work will apply in each case unless the Contract references a standard with a specific publication date differing from the current edition.

1-06.3 MANUFACTURER'S CERTIFICATE OF COMPLIANCE

The Engineer may accept certain Materials based on a Manufacturer's Certificate of Compliance as an alternative to Material inspection and testing when these Materials are specifically identified in the Contract. Unless the Contractor requests and obtains written authority from the Engineer for an exception to do otherwise, the Manufacturer's Certificate of Compliance shall be submitted prior to use of the Material. No payment will be made for Work incorporating Material without an acceptable Manufacturer's Certificate of Compliance. If, for any reason, the Contractor has not provided an acceptable Manufacturer's Certificate of Compliance for the Materials specified in the Contract by the Completion Date, the Engineer may process the final payment as provided by Section 1-09.9 without paying for the Work performed on such a basis.

Where Material are specified to conform to industry or technical society reference standards of designated recognized standards organizations, such as ASTM or AASHTO or ACI or AWWA etc., the Manufacturer's Certificate of Compliance shall indicate such compliance. The label or listing by the specified organization will be acceptable evidence of compliance. In lieu of the label or listing, the Manufacturer's Certificate of Compliance shall contain a statement from a testing laboratory stating that the Material or Material property specified has been tested in accordance with the specified organization's test methods and that the item complies with specified organization's reference standard, or that the Material property complies with the specified property of the specified organization's reference test standard (see Section 1-06.5).

The Manufacturer's Certificate of Compliance shall identify the manufacturer, the type and quantity of Material being certified, and compliance with the applicable standards. Where Specifications require additional information be provided, the Contractor shall provide the additional information. The signature of a responsible corporate official of the manufacturer and supporting mill tests or documents shall be included. A Manufacturer's Certificate of Compliance shall be furnished with each lot of Material delivered to the Work unless the Contract specifies otherwise. The certified lot shall be clearly identified in the Manufacturer's Certificate of Compliance.

All material used based on a Manufacturer's Certificate of Compliance may be sampled and tested at any time. Any material not conforming to Contract requirements will be subject to rejection whether in place or not. The Engineer reserves the right to refuse to accept Material based on its Manufacturer's Certificate of Compliance.

1-06.4 HANDLING AND STORAGE OF MATERIALS

Materials used in the Work shall be handled and stored by the Contractor by methods that will prevent damage, exposure to elements, mixing with foreign materials, or deterioration from any other cause. The Engineer will not accept or sample for testing, Materials that are improperly handled or stored.

The Contractor shall repair, replace or make good all Owner provided Materials that are damaged or lost due to the Contractor's operation or while in the Contractor's possession, at no additional cost to the Owner.

1-06.5 REQUIREMENTS FOR TESTING AND TEST RESULTS FROM PRIVATE LABORATORIES AND INDIVIDUALS

When testing is required by a private laboratory or individual, whether by Specification or by condition of Street Use permit, that laboratory or individual shall be accredited or certified by an AASHTO or ASTM or A2LA (American Association for Laboratory Accreditation) or other designated recognized standards organization with recognized accreditation authority or certification authority, to make such accreditation or certification. Such accreditation or certification shall be current at the time of such testing and for the life of the Contract, whichever is greater.

Every test shall be performed with testing equipment calibrated as recommended by the equipment manufacturer, and at the calibration frequency recommended either by the test equipment manufacturer or the applicable test standard, whichever is most frequent.

Personnel performing tests shall be qualified by certification from a designated recognized standards testing organization to perform the required test.

Sample preparation, installation of sample in test equipment or equipment installation in sample or inspection or as may apply, equipment operation, test data acquisition, test data reduction, and test data summary shall be performed in accordance with the specified test standard unless required otherwise in the Contract.

Unless the Contract specifies otherwise, results of testing shall be reviewed, approved, and stamped by a Professional Engineer with current license under RCW 18.43, or by other certifying individual, who is qualified to review and approve such results or perform such testing. The testing shall be performed to the satisfaction of the Engineer, in accordance with the designated recognized standards organization's test.

The Contractor, the testing laboratory, and the technician as may apply, agree to let the Engineer visit the laboratory to observe the technician at work for the purposes of reviewing and observing the laboratory's quality system, the testing, the technician, the sample preparation, accreditation, personnel certifications and qualifications, test data administration, and as may be required by the Engineer or by the Contract.

All test results submitted to the Engineer by private testing laboratory shall be accompanied with the following information:

1. A Manufacturer's Certificate of Compliance by Professional Engineer or certified individual as may apply, listing the test standard(s) used and that the testing was in compliance with the Contract;
2. The name of the testing laboratory including the accrediting agency, date of accreditation, principal in charge of testing, name of personnel doing testing if different including qualifications, address, phone number, and e-mail address;

3. The results of the test(s) presented in the format required by the designated recognized test standard unless the Contract specifies otherwise;
4. Where and how the sample was obtained, any care given to the sample, and any care given in preparing the sample not specified in the test standard, any deviations from the testing standard used in testing; and
5. As the Contract may require.

1-06.6 SIEVES FOR TESTING

Sieves for testing shall comply with Section 9-03.15

SECTION 1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**1-07.1 LAWS TO BE OBSERVED****1-07.1(1) GENERAL**

The Contractor is responsible for knowing and shall comply with all federal, State, tribal, county, and city laws, ordinances, and regulations that are applicable to the Work. All references to laws, ordinances, and regulations shall include all laws, ordinances, or regulations as adopted or amended subsequent to the Contract Date, to the extent that the same are thereafter modified and retroactively applicable.

Without usurping the authority of other agencies, the Engineer will cooperate with them in their efforts to enforce legal requirements. Upon awareness of any violation of a legal requirement, the Engineer will notify the Contractor in an effort to achieve compliance. The Engineer may also notify the agency responsible for enforcement if the Engineer deems that action necessary to achieve compliance with legal requirements. The Engineer may also assist the enforcement agency with Contractor compliance to the extent such assistance is consistent with the provisions of the Contract.

Compensation for increased or decreased costs due to changes in law or taxes occurring after the Bid Opening Date shall be determined in accordance with Section 1-09.4(2).

1-07.1(2) SAFETY RULES AND STANDARDS

The Contractor shall be solely and completely responsible for:

1. The safety, efficiency, and adequacy of the Contractor's plant, equipment, Materials and methods;
2. Any damage or injury resulting from the failure, or improper maintenance, use, or operation of the Contractor's plant, equipment, and methods; and
3. Conditions of the Project Site, including safety of all persons and property during performance of the Work.

These requirements shall apply continuously and not be limited to normal working hours. The Engineer's review of the Contractor's performance shall not include review or a determination of the adequacy of the Contractor's safety measures in, on, or near the Project Site.

The Contractor shall establish, maintain, and supervise:

- 1) A safe and healthy working environment;
- 2) An accident prevention program; and
- 3) Training programs to improve the skill and competency of all employees with respect to occupational safety and health.

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), as amended.

The Contractor shall comply with the federal Occupational Safety and Health Act of 1970 (OSHA), including all revisions and amendments thereto; the provisions of the Washington Industrial Safety Act of 1973 (WISHA), as amended; and as a minimum, the requirements of Title 296 WAC, Department of Labor and Industries.

In addition, the Contractor shall comply with the requirements of the National Electric Safety Code, when applicable.

In cases of conflict between different safety regulations, the regulation containing the more rigorous safety standard shall apply.

The Contractor shall maintain at the Project Site office or other well-known and readily accessible 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 shall 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.

1-07.1(3) NON-SKID SURFACE

Where specified in the Contract, a new non-skid or slip resistant surface, shall have a minimum static coefficient of friction in accordance with ASTM test method C 1028-96 on a dry surface of:

1. .80 on ADA curb ramps,
2. .60 on any other ADA accessible route, and
3. .50 all other non-skid surfaces.

1-07.2 STATE TAXES**1-07.2(1) GENERAL**

The Washington State Department of Revenue has issued special rules designed to assist the Contractor in accurately reporting to the Department of Revenue the Contractor's tax liability. Although information may be included in the Contract regarding the application of State taxes to a particular Contract or Bid item, it shall be the Contractor's responsibility to apply the correct interpretation of the laws and regulations relating to such taxes.

No adjustments will be made to the amount to be paid by the Owner under the Contract because of any misunderstanding by the Contractor as to the Contractor's liability for, or the amount of, any taxes. If the Contractor is in doubt

as to the tax procedures in any particular case, the Contractor shall consult with the Washington State Department of Revenue.

1-07.2(2) STATE SALES TAX - RULE 171

WAC 458-20-171 and its related rules apply to building, repairing, or improving streets, roads, etc., that are owned by a municipal corporation, or political subdivision of the State, or by the United States, and that are used, primarily, for foot or vehicular traffic. For Work performed in such cases, labor and service charges are not subject to the retail sales tax and no such tax on labor and service charges shall be included in bid prices and other contract amounts. The Contractor is responsible for paying retail sales tax on Materials, equipment, and supplies used or consumed in doing the Work or used in such projects, and shall pay retail sales tax on the purchase of such materials. The Contractor shall include such retail sales taxes on Materials, equipment, and Supplies in the various Bid item prices and other Contract amounts.

1-07.2(3) STATE SALES TAX - RULE 170

WAC 458-20-170, and its related rules, applies to the constructing and repairing of new or existing buildings, or other structures, upon Real Property. For Work performed in such cases, the Contractor shall collect from the Owner retail sales tax on the full Contract price. The Owner will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the Bid item prices, or in any other Contract amount subject to Rule 170, except as provided below.

Exception: The Owner will not add in sales tax for a payment the Contractor or a Subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable Supplies not integrated into the project. Such sales taxes shall be included in the Bid item prices or in any other Contract amount.

1-07.2(4) SERVICES

The Contractor shall not collect retail sales tax from the Owner on any Contract wholly for professional or other services (as defined in State Department of Revenue Rules 138 and 224).

1-07.3 MANAGEMENT AND DISPOSAL OF WASTE

1-07.3(1) GENERAL

All waste generated or encountered under this Contract shall be managed in accordance with all applicable local, State and federal regulations and law. Unless otherwise specified in the Contract, the Contractor is responsible for arranging and implementing the proper handling, management, segregation, storage, transport and disposal of all wastes that are not Dangerous Waste(s), including processing and maintaining required documentation. This includes, but is not limited to:

1. Identifying, proposing, and contracting with disposal sites that can legally accept the types of identified or characterized wastes in performing the Work;
2. Identifying, proposing, and contracting with waste transporters qualified and licensed to transport these types of identified or characterized wastes;
3. Obtaining waste clearances or other waste acceptance approvals through Public Health - Seattle & King County (PHSKC) or other agencies as appropriate and as required;
4. Creating and processing all necessary documentation, such as Certificates of Disposal or Recycling, sampling and analysis reports, waste clearance forms, waste acceptance forms, bills of lading, scale tickets, waste receipts, and others as applicable;
5. Providing the Engineer timely notice for reviewing documentation before transporting (see Section 1-05.3); and
6. Providing the Engineer copies of all documentation pertaining to waste generation, recycling and disposal.

Contract-related documents may identify Contaminated Material(s) or Dangerous Waste(s) that the Owner has documented on the Project Site. For all Contaminated Material(s) and Dangerous Waste(s) generated or encountered in connection with the Contract or Project Site, the Contractor shall comply with Section 1-07.30 in addition to other Contract requirements.

The Waste Clearance Program Instructions and forms for PHSKC may be provided in the Appendix of the Project Manual or requested from the Engineer. This information is provided for the convenience of the Contractor and the Contractor is solely responsible for verifying that the information is current. Additional copies of the forms or information regarding the forms may be obtained by calling PHSKC at 206-296-4633.

Private disposal companies and waste sites outside of King County may require other documentation, and Laboratory analysis of waste material may be required to obtain waste clearance or acceptance. Copies of all waste clearance or acceptance forms along with any associated laboratory data shall be provided to the Engineer.

Disposal sites utilized under the Contract shall be in compliance with all applicable rules, ordinances, codes, regulations and law, and shall have all required authorizations for the waste to be disposed.

Waste sites located within the City limits of Seattle are subject to the rules and regulations set forth in Seattle's Stormwater Code and Grading Code, which are Seattle Municipal Code (SMC) Chapters 22.800 – 22.808 and 22.170, respectively, and as otherwise provided in the SMC, and shall at minimum require a grading permit issued to the property owner by the Director of the Department of Planning and Development.

Waste sites located outside the City limits of Seattle but within unincorporated King County shall be subject to the rules and regulations set forth by current King County grading requirements. Sites located outside the City limits of Seattle or unincorporated King County may also be subject to rules and regulations of the local governmental authority having jurisdiction.

Disposal shall comply with SMC Chapter 21.36, which provides in part that no wastes of the types identified in SMC 21.36.112 and generated within the City of Seattle shall be disposed of at a facility owned or operated by King County, unless specifically agreed by the City and King County.

Options for the disposal of woody debris from clearing and grubbing include on-site grinding for use as mulch or delivery to facilities that compost or recycle woody debris into soil amendment or mulch end products. Any action required to comply with any permit and/or any approval requirements at a Contractor-provided disposal site shall be performed by the Contractor at no additional cost to the Owner.

The selection of waste sites and their use shall at all times be subject to the approval of the Engineer.

1-07.3(2) SUBMITTALS

At or before the Preconstruction Conference, the Contractor shall submit to the Engineer a list of proposed disposal and recycle sites that shall allow the types of wastes and recyclable Materials that can be reasonably expected from examination of the Bid Documents and Project Site including those materials supplied by the Contractor to perform the Work.

The submittal shall identify each disposal site and recycle site, and the estimated quantities and type of material to be disposed of or recycled at each site. The list shall also identify the proposed transporter to be used for each type of waste or recyclable material and applicable licenses that may be necessary for transporting the identified or characterized waste. The submittal shall specifically identify any Contaminated Material(s) Not Designated as Dangerous Waste(s) or TSCA Waste(s) that the Contractor proposes to dispose or recycle.

The submittal shall also provide a management plan for any wastes that are to be stored on the Project Site prior to recycling or disposal. The management plan shall provide procedures to ensure that wastes are stored in a safe, secure manner that does not allow for leakage or other releases of waste. Unless otherwise specified in the Contract, the Contractor shall submit adequate details indicating where such waste storage is proposed and the proposed controls at each location including required signs, placards, labels or other identifying marks. Waste storage areas shall be inspected at least daily. Also see Section 1-07.15 regarding spill prevention and control.

Should additional or alternate disposal and recycle sites, and transporters become necessary during the life of the Contract Time, the locations and information for each additional site, and qualifications and licenses of transporters shall be submitted to the Engineer for approval at least ten (10) Working Days prior to their use.

The Contractor shall not dispose or recycle Dangerous Waste(s) or TSCA Waste(s) without prior and specific written approval from the Engineer.

1-07.3(3) CONTRACTOR FOLLOW-UP DOCUMENTATION REQUIRED FOR THE ENGINEER

The Contractor shall submit to the Engineer within ten (10) Working Days of receipt by the disposal site, two (2) copies of each shipment list (also known as "bill of lading" or "transmittal document") listing the waste material or materials shipped from the Project Site and deposited at the waste disposal site. The submitted shipment list shall have the waste site operator's confirmation of receipt of the waste, and the name of the waste transporter.

The Contractor shall also provide the Engineer with copies of the following documents:

1. Documentation of disposal as applicable;
2. Waste sampling and analysis reports as applicable; and
3. Waste clearance or acceptance forms.

1-07.3(4) RECYCLABLE MATERIALS

The City of Seattle requires the recycling of readily recyclable construction and demolition waste materials per SMC 21.36.089 and subsequent SPU Director's Rules related to construction materials disposal bans. In 2014 such materials include concrete, cement concrete, bricks, asphalt paving, metal (ferrous and non-ferrous), cardboard, and new construction gypsum scrap. In 2015 the materials targeted for recycling will include not only those listed previously but also plastic film wrap, carpet, unpainted and untreated wood, and tear-off asphalt roofing shingles.

Any revenue obtained or expense incurred by the Contractor for recycling shall be the Contractor's alone. Materials identified in the Contract as salvage materials are excluded from the provisions of this Section.

1-07.3(5) RESERVED

1-07.4 SANITATION

The Contractor shall provide and maintain in a clean, neat, and sanitary condition, any accommodations for the Contractor and Owner employees that are necessary to comply with the requirements and regulations of the State of Washington Department of Social and Health Services and other agencies. The Contractor shall commit no public nuisance and, at all times, keep all sites clean, in a neat and sanitary condition, and dispose of all waste in a proper manner.

1-07.5 PREVENTION OF ENVIRONMENTAL POLLUTION AND PRESERVATION OF NATURAL RESOURCES**1-07.5(1) GENERAL**

During the life of the Contract, the Contractor shall comply with all provisions of federal, State and local statutes, City ordinances and any regulations pertaining to the prevention of environmental pollution and the preservation of public natural resources. Pursuant to RCW 39.04.120 such provisions as are reasonably obtainable are set forth below.

1-07.5(2) WATER QUALITY

The Contractor shall comply with City ordinances, State, and federal laws and other regulations or rules applicable to water pollution occurring in waters of the State and in interstate waters. The Contractor shall:

1. Exercise precautions throughout the life of the Contract to prevent: contamination, pollution, erosion, siltation, sedimentation, and pollution of groundwater and surface waters; and to prevent damages to: drainage systems, public and private property;
2. Provide for the flow of all watercourses, including but not limited to, streams, ditches, Sewers, and Storm Drains intercepted during the progress of the Work;
3. Completely restore disturbed watercourses to original or better condition, as the Contract may provide;
4. Not obstruct the gutter of any street;
5. Use all proper measures to provide for the free passage of surface water;
6. Remove and properly dispose of all surplus water, mud, silt, slicking, or other run-offs pumped from excavations or resulting from sluicing or pavement cleaning or other operations; and
7. Make all applicable notifications required by Section 1-07.28.

The Contractor shall comply with the water quality criteria required by the Department of Ecology (DOE) and regulations of:

- 1) The Washington State Department of Fish and Wildlife;
- 2) Federal statutes on oil spills enacted under the federal Water Pollution Control Act Amendments of 1972 (a copy of which may be obtained from the U.S. Environmental Protection Agency);
- 3) The water quality standards of the State of Washington as set forth in WAC Chapters 173-200 and 173-201A;
- 4) The City of Seattle, SMC Chapters 22.800 -22.808 (The Stormwater Code) and other SMC as may apply.
- 5) Any local statute, regulation, ordinance, or rules that stipulate the various type of discharge prohibited in public Sewer systems, Storm Drains or any drainage ditch in the local jurisdiction.

State statutes on water pollution covering liability of the Contractor, penalty for violation, liability and damages for injury or death of fish, animals or vegetation are set forth in RCW Chapter 90.48. As an aid to the Contractor, some though not all, of the rules set forth by the various State departments are summarized below. The Contractor is cautioned, however, that each Department of the State may add other restrictions, as they deem necessary, to protect fish and to prevent air or water pollution:

- (1) **State Department of Fish and Wildlife:** In doing the Work the Contractor shall:
 - a. Not degrade water quality in a way that would harm fish. (The Washington State Water Quality Regulations shall be in addition to other water quality criteria specified in the Contract for the Work.)
 - b. Promptly notify the Engineer if any fish are stranded by the Work.
 - c. If the Work has disturbed the vegetative cover of any stream bank or shoreline areas, replant the disturbed area with trees and other vegetation species selected compatible with area conditions as determined by the Engineer.
 - d. Provide an open water channel at the lowest level of any isolated water location in the channel remaining when the Work is complete.
 - e. Protect fish by preventing additional siltation build-up on the bed or bottom of any body of water.
 - f. Allow stream flow to continue for fish passage including use of bypass as the Work may require.
 - g. Keep all equipment out of any flowing stream or other body of water, except when the Work requires.
 - h. Not remove gravel or other bottom material from within the high-water flow channel bed of any stream nor from the bottom of any other body of water (except as the Contract may permit).
 - i. Properly dispose of any debris generated by the Work.
- (2) **State Department of Ecology:** In doing the Work, the Contractor shall:
 - a. Obtain a waste discharge permit from the Department of Ecology before:
 - 1) Washing aggregate, and
 - 2) Discharging water into a ground or surface waterway from pit sites or excavations when the water contains turbidity, silt, or foreign materials.
 - b. Provide the Engineer with a copy of each waste discharge permit before starting the Work.
 - c. Control drainage and erosion to minimize the pollution of any waterway.
 - d. Properly dispose of all contaminants (including creosote, oil, cement, concrete, and water used to wash equipment) in ways that will prevent them from entering State waters.
 - e. Properly dispose of all debris, overburden, and other waste materials in ways that will prevent them from entering State waters.

The Contractor shall perform such temporary work as may be necessary to prevent water pollution, erosion, and related damage within the Project Site and that may be necessary at locations outside the Project Site used in support for the Work.

If Work is suspended for an extended period of time, the Contractor shall be responsible for controlling erosion, pollution, sedimentation, and runoff during the suspended period.

In addition to other requirements in the Contract, this temporary Work shall include, but is not limited to, the following water quality considerations:

- [1] **Diversion of Storm Water:** Storm water shall be diverted around the Project Site to prevent pickup of silt, clay, and other fine particles. This may be accomplished by pumping; improvising ditches; lining channels or by placing metal, plastic or concrete gravity pipe; constructing ditches, berms, culverts, etc. to control surface water; or constructing dams, settling basins, or energy dissipaters to control impacts of flow.
- [2] **Surfacing Ground Water:** Surfacing ground water shall be intercepted and either routed around the areas of Work in-progress or, when impossible, routed through areas of Work in-progress, each with appropriate ESCBMPs to prevent erosion and control sediment.
- [3] **Discharging Ground Water:** When ground water is encountered in an excavation, it shall be handled as follows:
 - a. When the ground water meets State Water Quality standards, it may bypass treatment facilities and be routed directly to its normal discharge point.
 - b. Discharging turbid ground water shall comply with the requirements specified in subsection [4] immediately following.
- [4] **Turbid Water Treatment Before Discharge:** Determination of turbidity shall be at the discretion of the Engineer. The Contractor shall be responsible for ensuring any water discharged from the Project Site or from Work performed at the Project Site shall not exceed the following standards for turbidity, unless otherwise allowed in accordance with State Surface Water Quality Standards (WAC 173-201A-200):
 - a. Receiving waters with 50 NTU or less as background turbidity shall not exceed 5 NTU over background conditions;
 - b. Receiving waters with more than 50 NTU as background turbidity shall not exceed a 10 percent increase in turbidity over background conditions.

Turbidity is measured in Nephelometric Turbidity Units (NTUs) and measured with a turbidimeter. Turbidity reports shall be accompanied by a Manufacturer's Certificate of Compliance indicating laboratory accreditation and turbidimeter calibration as specified in WAC 173-50.

Discharges to a State waterway caused by aggregate washing, drainage from aggregate pit sites and stockpiles, dewatering of pits and excavations, and other discharges shall not increase the existing turbidity of the receiving waters. Turbid water from the Project Site shall be treated before being discharged into streams or other State waters.

Water discharged to a Storm Drain shall meet State Water Quality standards and the Contractor shall obtain written permission, including any required permits, from the local jurisdiction (SPU when within the City of Seattle).

Water discharged to a sanitary or combined Sewer shall require the Contractor to obtain written permission, including any required permits, from the local jurisdictions (meeting water quality requirements for both SPU and King County Industrial Waste Division for Work within the City of Seattle).

The Contractor is responsible for all testing and monitoring required to ensure the water meets water quality requirements prior to discharge to the Storm Drain system, or the sanitary or combined Sewer system.
- [5] **Erosion and Sediment Control:** General requirements to manage, prevent and control erosion and to treat sediment are specified in Section 1-07.15 and 8-01.
- [6] **Chlorine Residual:** Water containing chlorine residual shall be dechlorinated to a concentration of 0.1 ppm or less, or shall not be discharged directly into Storm Drains, streams, or State waters. Chlorine water may be discharged into sanitary Sewers or disposed on land for percolation. Chlorine residual may be reduced chemically with a reducing agent such as sodium thiosulphate or vitamin C. Water shall be periodically tested for chlorine residual.
- [7] **Vehicle and Equipment Washing:** Water used for washing vehicles and equipment shall not enter Storm Drains, streams or other State waters. Separation of petroleum products, fresh concrete products or other deleterious material from wash water is required prior to discharge. Detergent solution may only be discharged into sanitary Sewers, or held on the ground for percolation. A recirculation system for detergent washing is recommended. Steam cleaning units shall provide a device for oil separation.
- [8] **Oil and Chemical Storage and Handling:** Handling and storage of oil and chemicals shall not take place adjacent to surface waters. The storage shall be made in diked tanks and barrels with drip pans provided under the dispensing area. Shut-off and lock valves shall be provided on tanks. Shut-off nozzles shall be

provided on hoses. Oil and chemicals shall be dispensed only during daylight hours unless the dispensing area is properly lighted. Should an oil or chemical spill occur, the Contractor shall promptly make the notification in accordance with Section 1-07.28, item 10), stop the spilling, contain the spill, and then clean up any spilled materials. Fencing shall be provided around oil storage. Locks shall be provided on valves, pumps, and tanks.

- [9] **Sewage:** If a pipe carrying sewage is encountered and repair or relocation work is required, the Contractor shall provide blocking and sealing of the pipe. Sewage shall be pumped out, collected, and conveyed or pumped directly to a sanitary or combined Sewer system maintenance hole for discharge. Existing sewerage shall be maintained by the Contractor without interruption of service by the use of temporary Sewer bypasses. In addition, the excavated materials adjacent to and around a rupture of any pipe containing sewage shall be removed to a disposal site. Equipment and tools in contact with the above materials shall be washed by pressure water lines and the attendant wash water discharged into a sanitary or combined Sewer for transmission to a sewage treatment plant.
- [10] **Sawcutting, Planing, and Grinding By-Products:** The Contractor shall take special precautions to assure that concrete, asphalt, concrete by-products, or asphalt by-products from, or used in, the drilling, sawcutting, grinding, or planing of asphalt cement or cement concrete pavements, sidewalks, curbs, etc. do not enter any Storm Drain, surface water, and natural drainage system. In as much as sawcutting by-products increase the pH of the wastewater, filtering prior to discharge will NOT be acceptable. The Contractor shall provide a means for collecting, for on-site temporary storing as necessary, and for properly disposing of these by-products. Surfaces contaminated with these by-products shall be power washed and vacuum swept clean at least daily, and more frequently during wet weather.
- [11] **Gutters and other Surface Drainage Channels:** All construction waste and stockpiling, and all byproduct shall be prevented from entering gutters and other drainage channels inlets, catch basins, and other drainage structures and features. Material shall be removed from drainage channels on a regular basis. Temporary filters or filter materials shall be placed and timely maintained by the Contractor in drainage channels to prevent the passage of said material.

1-07.5(3) AIR QUALITY

The Contractor shall maintain air quality within the National Emission Standards for Hazardous Air Pollutants. Air pollutants are defined as that part of the atmosphere to which no ambient air quality standard is applicable and which, in the judgment of the Administrator of the Environmental Protection Agency Clean Air Act, may cause or contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness.

1-07.5(4) NOISE POLLUTION

The Contractor shall conduct performance of the Work consistent with the applicable noise control levels set forth in SMC Chapter 25.08 or, if outside the City limits and in King County, Chapters 12.86 through 12.100, King County Code, and the requirements of local jurisdictions; or, if outside King County the requirements of local jurisdictions, including all reasonable measures for the suppression of noise resulting from Work operations including the equipping of engine driven equipment with such exhaust and air intake silencers designed to achieve the reasonable degree of silencing determined by Owner to be appropriately necessary.

1-07.5(5) RESERVED

1-07.5(6) ARCHAEOLOGICAL AND HISTORIC PRESERVATION

Should the Contractor discover during any construction activity or in any other way discover any artifacts, skeletal remains, or other archaeological resources (as defined under RCW 27.53.040) at the Project Site, it shall be the responsibility of the Contractor to both immediately cease construction activity at the discovery site and surrounding area, and promptly notify the Engineer. In the event that human skeletal remains are discovered, in accordance with RCWs 68.50.645, 27.44.055, and 68.60.055, the Contractor shall also notify the county coroner and local law enforcement.

If ordered by the Engineer, the Contractor shall suspend construction activity that, in the opinion of the Engineer, would be in violation of State Law. Suspension of this construction activity shall remain in effect until the Engineer has obtained permission to proceed from the State Historic Preservation Officer or from other authority.

The Contractor and all Subcontractors shall comply with regulations regarding archaeological resources including, but not limited to the following:

- Archaeological Sites and Resources (RCW 27.53)
- Indian Graves and Records (RCW 27.44)
- Archaeological Site Public Disclosure Exemption (RCW 42.56.300)
- Discovery of Human Remains (RCW 27.44)
- Archaeological Excavation and Removal Permit (WAC 25-48)
- Abandoned and Historic Cemeteries and Historic Graves (RCW 68.60)
- SEPA Environmental and Historic Preservation Polices (SMC 25.05.660-675)

1-07.5(7) THREATENED AND ENDANGERED SPECIES

The Contractor shall prevent the harming of threatened and endangered species, and all critical habitat associated with threatened and endangered species as required by the federal Endangered Species Act (ESA), as may be applicable.

1-07.5(8) CONSTRUCTION WITHIN AND ADJACENT TO WATER

In addition to other requirements in Section 1-07.5, the Contractor shall comply with the Rivers and Harbors Act, the Clean Water Act, and the Water Resources Development Act, as may be applicable.

1-07.5(9) WETLANDS

Wetlands are defined as those areas inundated or saturated by ground or surface water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetland impacts, including disposal of material within a wetland area, will not be allowed without a Clean Water Act Section 404 permit issued by the U.S. Army Corps of Engineers and approval by the local agency with jurisdiction over the wetland. Impacts to areas considered wetland buffers may require approval by the local agency with jurisdiction.

1-07.5(10) LIABILITY AND PAYMENT

The Contractor shall be liable for the payment of all fines and penalties resulting from failure to comply with the federal, State and local pollution control regulations. Except as may be otherwise provided for in the Contract, costs pertaining to the prevention, containment or cleanup of environmental pollution and the preservation of public natural resources as outlined in the Contract shall be considered as incidental to the Work and such costs shall be at the Contractor's sole expense.

1-07.6 PERMITS

The Contractor shall comply with all the issuing agency requirements and hold the Owner harmless for any Work-related liability incurred under any permit obtained to perform work under this Contract. If the Contractor finds any ambiguity or conflict between the Contract and the permit, the Contractor shall promptly notify the Engineer no later than two (2) Working Days from the date of discovery.

Information on street use permits can be found at: http://www.seattle.gov/transportation/stuse_permits.htm

1-07.6(1) CONTRACTOR OBTAINED PERMITS

Unless otherwise specified in the Contract, the Contractor shall obtain all required permits for the performance of the Work, shall give any notices such permits may require, and shall not proceed with any portion of the Work until the requisite permit has been obtained and a copy delivered to the Owner. The costs of permits obtained by the Contractor shall be included in the Bid item prices for the Work.

Information on electrical and side sewer permits can be found at: www.seattle.gov/dpd/permits

1-07.6(2) OWNER OBTAINED PERMITS

Permits obtained by the Owner will be referenced or included in the Contract.

The Contractor may request in writing that the Owner obtain a temporary operating permit in the Owner's name if:

1. A local rule or an agency policy prevents issuing the permit to a private firm;
2. The Contractor takes all actions necessary to support the Owner to obtain the permit;
3. The permit will serve the public interest (including expediency);
4. The permit applies only to Work under the Contract; and
5. The Contractor reimburses the Owner for all fees.

1-07.7 LOAD LIMITS**1-07.7(1) GENERAL**

While moving equipment and Materials on any public Right-Of-Way, the Contractor shall comply with all laws and regulation affecting motor vehicle traffic and limits loads. The Contract does not exempt the Contractor from such laws nor does it license overloads. At the Engineer's request, the Contractor shall provide any information needed to determine the weight of equipment on the roadway.

The Contractor is responsible for any damage to any public Right-Of-Way caused by overweight equipment, whether under permit or otherwise.

1-07.7(2) LOAD-LIMIT RESTRICTIONS

The following load limits shall apply to:

1. **Structures Designed for Direct Bearing of Live Loads:** On these Structures, the gross or maximum load on each individual vehicle axle shall not exceed the legal load limit by more than 35 percent. No more than one vehicle shall operate over any Structure at one time.
2. **Underpasses and Reinforced Concrete Box Culverts Under Embankments:** Over these Structures, maximum loads shall be 24,000 pounds on a single axle and 16,000 pounds each on tandem axles spaced less than 10 feet apart, provided that:
 - a. The embankment has been built in accordance with Section 2-10.

- b. The embankment has reached at least 3 feet above the top of the underpass or Culvert. When the embankment has reached 5 feet above the top of the Culvert or underpass, the Contractor may increase axle loads up to 100,000 pounds each if outside wheel spacing is at least 7 feet on centers on the axle.
3. **Pipe Culverts and Sewer Pipes:** Loads over pipe Culverts and sewer pipes shall not exceed 24,000 pounds on a single axle and 16,000 pounds each on tandem axles spaced less than 10 feet apart. These limits are permitted only if:
- a. The Culvert or pipe has been installed and backfilled to specifications, and
 - b. The embankment has reached at least 2 feet above the top limit of pipe compaction.
- When the embankment has reached 5 feet above the top limit of pipe compaction, the Contractor may increase per-axle loads up to 100,000 pounds if outside wheel spacing is at least 7 feet on centers on the axle centers, except that:
- 1) For Class III reinforced concrete pipes, the embankment shall have risen above the top limit of compaction at least 6 feet.
 - 2) For Class II reinforced concrete pipes, the maximum load for each axle shall be 80,000 pounds if outside wheel spacing is at least 7 feet on axle centers. In this case, the embankment shall have risen above the top limit of compaction at least 6 feet.

1-07.8 HIGH-VISIBILITY APPAREL

The Contractor shall require all personnel under their control (including service providers, Subcontractors, and lower tier Subcontractors) that are on foot in the work zone and are exposed to vehicle traffic or construction equipment to wear the high-visibility apparel described in this Section.

The Contractor shall ensure that a competent person as identified in the MUTCD selects the appropriate high-visibility apparel suitable for the jobsite conditions.

High-visibility garments shall always be the outermost garments.

High-visibility garments shall be in a condition compliant with the ANSI 107-2004 and shall be used in accordance with manufacturer recommendations.

1-07.8(1) TRAFFIC CONTROL PERSONNEL

All personnel performing the Work described in Section 1-10 (including traffic control supervisors, flaggers, spotters, and others performing traffic control labor of any kind) shall comply with the following:

1. During daylight hours with clear visibility, workers shall wear a high-visibility ANSI/ISEA 107-2004 Class 2 or 3 vest or jacket, and hardhat meeting the high-visibility headwear requirements of WAC 296-155-305; and
2. During hours of darkness (½-hour before sunset to ½-hour after sunrise) or other low-visibility conditions (snow, fog, etc.), workers shall wear a high-visibility ANSI/ISEA 107-2004 Class 2 or 3 vest or jacket, high-visibility lower garment meeting ANSI/ISEA 107-2004 Class E, and hardhat meeting the high-visibility headwear requirements of WAC 296-155-305.

1-07.8(2) NON-TRAFFIC CONTROL PERSONNEL

All personnel, except those performing the Work described in Section 1-10, shall wear high-visibility apparel meeting the ANSI/ISEA 107-2004 Class 2 or 3 standard.

1-07.9 WAGES

1-07.9(1) PREVAILING WAGE RATES

1-07.9(1)A GENERAL

The Work is subject to the wage requirements of RCW 39.12 (Prevailing Wages on Public Works), RCW 49.28 (Hours of Labor), and to RCW 49.46 (Minimum Wage Act) as amended or supplemented. The Contractor, any Subcontractor, and all individuals and firms required to pay prevailing wages under WAC 296-127-010, shall pay all laborers, workers, or mechanics no less than the applicable prevailing hourly wage rate and fringe benefits appropriate to the worker's classification. Higher wages and benefits may be paid at the option of the employer.

The Contractor is responsible for assigning the appropriate classification to all laborers, workers or mechanics that perform any work under this Contract, in conformance with the scope of work descriptions established by the Industrial Statistician of the Washington State Department of Labor and Industries (L&I). Laborers, workers, and mechanics shall be paid in full at least once each week and in lawful money of the United States. If the Contractor assigns the wrong prevailing wage classification, the Contractor is responsible for and shall pay the amount of the corrected prevailing wage. The difference is not subject to an equitable adjustment or Change Order.

The Contractor shall ensure that all Subcontractors, and all other individuals and firms as applicable, comply with all prevailing wage requirements including payroll reporting requirements and payment of prevailing wages. The Contractor shall be responsible for any violations of prevailing wage requirements by Subcontractors, individuals, or firms, and The Owner shall take enforcement action against the Contractor to remedy any violations and achieve compliance with prevailing wage requirements.

1-07.9(1)B APPLICABILITY OF FEDERAL PREVAILING WAGE RATES

On Projects funded in whole or part from federal monies, federal wage laws and rules shall also apply. If the Work is subject to both the provisions of the State (RCW 39.12) and federal (Davis-Bacon and Related Acts, DBRA) prevailing wage requirements, both federal and state prevailing wage rates will be included in the Appendix. The Contractor and every Subcontractor shall pay the higher prevailing wage rate for the classification.

1-07.9(1)C WAGE RATES

Any listing of wages and fringe benefits in the Project Manual for any classification is intended only as a guideline for the Contractor and does not necessarily reflect the most recent classification or prevailing wage rate. Prevailing wage rates will be determined by L&I and published on the first Business Day of February and the first Business Day of August of each year. All prevailing wage rates become effective thirty (30) Days after they are published. Current prevailing wage information may be obtained on-line:

Washington State Department of Labor and Industries

<http://www.lni.wa.gov/TradesLicensing/PrevWage/WageRates/default.asp>

For projects funded in whole or part with federal monies, current federal prevailing wage information may be obtained upon request from the:

U.S. Department of Labor

<http://www.dol.gov/compliance/laws/comp-dbra.htm>

By including wage and fringe benefit rates in the Project Manual, the Owner does not imply that the Contractor will find labor available at those rates. The Contractor shall calculate any amount above the minimums that have to be paid.

If the Contractor employs labor in a classification not listed in the Project Manual, the Contractor shall request the Industrial Statistician of the Washington State Department of Labor and Industries (L & I) determine the correct prevailing wage rate for that classification and locality. If the project is federally funded, the Contractor shall request the Secretary of the U.S. Department of Labor (US DOL) determine a federal prevailing wage rate for that classification and locality in addition to requesting the State prevailing wage rates. In such case, the Director of L & I's, and if applicable the Secretary of US DOL's, decision regarding the rates shall be final, conclusive, and binding on all parties. If the state and federal wage rates differ, the Contractor shall pay the higher wage rate.

1-07.9(1)D OVERTIME**1. General**

Pursuant to the provisions of RCW 49.28 and WAC 296-127-022, work performed on public works contracts will not require the payment of overtime rates for the first two (2) hours worked in excess of eight (8) hours per day when the employer and employee voluntarily enter into a written agreement wherein the employee will work up to ten (10) hours per day in a four-day week to accomplish forty (40) hours of work. Working more than ten (10) hours on any Calendar Day on a public works project is prohibited except in cases of extraordinary emergency, such as danger to life or property. The Contractor shall refer to the Benefits Code Key attached to the Prevailing Wage Schedule for specific overtime rates.

2. Written Overtime Agreement

Recognizing that there may be days when a full ten (10) hours of work is not available, the remainder of the forty hours may be made up on another work day or days within the same work week. However, work performed on Saturdays, Sundays, and Holidays is subject to the established prevailing overtime provisions for a given trade or occupation, as provided in RCW 39.12.

For the purpose of this Section, an agreement shall:

- 1) Have been authorized by employees who bargained collectively with their employers through representatives of their own choosing; or
- 2) Be obtained in writing, signed, and dated by both parties; and
- 3) Be entered into individually with each employee; and
- 4) Be entered into separately for each public works project, except that an employer, at its option, may obtain an annual authorization; and
- 5) State the name of the public works project with specificity; and
- 6) Be entered into voluntarily by the employer and employee.

Each employer shall retain copies of individual employee authorization agreements for three (3) years from the Completion Date of the Work. Absence of an authorization record for an employee shall be deemed per se evidence of lack of that employee's authorization. Such records are payroll records, subject to the requirements of WAC 296-127-320.

For any overtime work performed on a federally funded project in accordance with the agreements referenced above, the Contractor, Subcontractor, and all other individuals or firms required to pay prevailing wages, shall submit a copy of such authorization agreement for each affected employee to CPCS, physical address: Seattle Municipal Tower, 700 Fifth Avenue, Suite 4112, Seattle, WA 98104 mailing address: P.O. Box 94687, Seattle, Washington 98124-4687.

1-07.9(2) PAYROLL REPORTS

Payroll reports for the Contractor, every Subcontractor, and all other individuals or firms required to pay prevailing wages for Work performed shall be submitted weekly via an on-line reporting portal <http://www.LCPTracker.net>. The Contractor shall be responsible for approving electronically the payrolls submitted by all Subcontractors. Payroll reports shall contain the following information:

1. Name and residence address of each worker.
2. Last four digits of Social Security number of each worker.
3. Classification of work performed by each worker. The classification must be specific and match the classification categories listed in the applicable wage schedule.
4. Total number of hours employed each day.
5. Total number of hours employed during the payroll period.
6. Straight time and overtime hourly rate of wages paid to each worker.
7. Total or gross amount earned by each worker.
8. Deductions for Medical Aid, FICA, federal withholding tax, and any other deductions taken.
9. Net amount paid each worker.
10. Contractor's (or Subcontractor's) name and address.
11. All days during the pay period.
12. Date of final day of pay period.
13. Whether fringe benefits were paid to each worker as part of the hourly wage rate or whether fringe benefits were paid into an approved plan, fund, or program; and the hourly rate of fringe benefits paid, if any.

For federally-funded projects, payroll reports may be submitted on federal payroll form WH-347 (or equivalent), which may be obtained by contacting the Government Printing Office's toll free number (866) 512-1800, 7:30 AM to 4:30 PM Eastern Time, or by accessing their web- site at <http://bookstore.gpo.gov>. The reverse side of the form contains an affidavit that shall be filled out and signed. If the Contractor's payroll reports are computerized, the computerized reports may be submitted along with a Statement of Compliance Affidavit form, which may be photocopied from the sample in the Project Manual.

The first payroll submitted for the Work for both the Contractor and each Subcontractor shall be labeled "Initial." The last payroll submitted for the Work for both the Contractor and each Subcontractor shall be labeled "Final." If no work is performed for the week, the Contractor shall submit a certified payroll noting that no work has been performed.

1-07.9(3) ENFORCEMENT

The Contractor, every Subcontractor, and all other individuals or firms required to pay prevailing wages for Work performed on this Contract are subject to investigation by CPCS and L&I in regards to payment of the required prevailing wage to workers, laborers, and mechanics employed on the project.

If the investigations result in a finding that an individual or firm has violated the requirement to pay the prevailing rate of wage, the unpaid wages shall constitute a lien against the Contractor's Bond and retainage. The Owner may also withhold payments to the Contractor pursuant to Section 1-09.9(3). Per RCW 39.12.065 and 39.12.050, the Contractor or Subcontractor may also be subject to civil penalties and may be prohibited from Bidding on any public works contract within the State of Washington for the period specified by law. The Owner reserves the right to consider such violations in preparing performance evaluations under Section 1-05.13(2), in determining whether a Contractor or Subcontractor is a responsible Bidder under Section 1-02.2, and under debarment proceedings under SMC 20.70.

1-07.9(4) POSTING NOTICES

The Contractor shall post in a location acceptable to the Washington State Department of Labor and Industries ("State L&I"), and in compliance with the requirements of RCW 39.12.020:

1. One copy of the approved "Statement of Intent to Pay Prevailing Wages" for the Contractor, each Subcontractor regardless of tier, and any other individual or firm required to pay prevailing wages per WAC 296-127-010.
2. A copy of the prevailing wage rates for the project.
3. The address and telephone number of the Industrial Statistician, State L&I (along with notice that complaints or questions about wage rates may be directed there).

1-07.9(5) PREVAILING WAGES FOR APPRENTICES

An apprentice is defined as a laborer, worker, or mechanic employed to perform the Work for whom an apprentice agreement is established through a training program that is registered and approved by the Washington State Apprenticeship and Training Council (WSATC). Pursuant to RCW 39.12.021 and RCW 49.04, apprentices shall be paid the applicable prevailing hourly rate for an apprentice of that trade. If the Contractor or Subcontractor of any tier makes use of an apprentice on work also governed by federal wage rates and regulations, the Contractor shall present to the Owner written evidence of registration of such employees in a program approved by the WSATC. On any Project that is federally funded and where submission of payroll reports is required, such evidence shall be submitted with the first payroll upon which the name of the employee appears.

1-07.9(6) PREVAILING WAGE DISPUTES

Prevailing wage disputes are not subject to the dispute resolution process under Section 1-04.5. For purposes of prevailing wage disputes the following shall apply:

If there is a dispute regarding prevailing wages, CPCS and the Contractor shall communicate in an attempt to resolve the dispute and to receive corrected prevailing wage documents such as amended certified payrolls and other supporting documents as requested. If the Contractor does not make good faith efforts to resolve the dispute within thirty (30) Calendar Days of receiving notification, CPCS may conduct its own investigation or refer the dispute at any time thereafter to the Washington State Department of Labor and Industries (L&I), and/ or U.S. Department of Labor (US DOL), as applicable. If CPCS determines that it will conduct an investigation, CPCS will provide written notice of the investigation to the Contractor and after its investigation is complete, CPCS will furnish its written determination to the Contractor including the identification of any or all enforcement actions identified under Section 1-07.9(3). The Contractor may appeal this determination in writing to the Director of CPCS. The Director will provide a written response to the Contractor regarding the appeal. Nothing in this process precludes other interested parties from filing complaints or disputes with L & I or US DOL or taking other legal action.

In the event that after exhausting the foregoing process, the Contractor disagrees with the Owner's final determination of a prevailing wage dispute involving a state prevailing wage rate, the matter shall be referred to the Director of L & I. In such cases, the Director's decision shall be final, conclusive, and binding on all parties in accordance with law. If the dispute involves a federal prevailing wage rate, the matter shall be referred to the Secretary of U.S. DOL, for a decision. In such case, the Secretary's decision shall be final, conclusive, and binding on all parties in accordance with law.

When the Work is subject to both State and federal prevailing wage requirements, the Contractor and every Subcontractor shall pay whichever rate is higher.

1-07.9(7) REQUIRED DOCUMENTS

1. Before payment is made by the Owner of any sums due under this Contract, the Contractor and each Subcontractor regardless of tier shall have a "Statement of Intent to Pay Prevailing Wages" (form F700-029-000), approved by L&I. Wage rates listed on an approved Statement of Intent to Pay Prevailing Wages may not meet federal prevailing wage requirements.

2. Each progress estimate submitted for payment shall include an Owner-provided form listing all the Subcontractors and Suppliers, who performed Work on the project during that pay period, including but not limited to, Subcontractor Name, UBI Number, Intent Number and Affidavit Number as applicable, along with a statement completed and signed by an authorized representative of the Contractor certifying the prevailing wages have been paid pursuant to RCW 39.12.040.

3. Upon Physical Completion and before final progress payment and funds retained under RCW Chapter 60.28 can be released to the Contractor, the Contractor and each Subcontractor regardless of tier shall have an "Affidavit of Wages Paid" (form L700-007-000) approved by L&I. See Section 1-09.9.

4. The Contractor or Subcontractor, as applicable, shall be responsible for payment of fees for each "Statement of Intent to Pay Prevailing Wages" and "Affidavit of Wages Paid" and shall submit all forms directly to L&I for approval. The cost of these fees shall be included in the Bid item prices that comprise this Contract. "Intent" and "Affidavit" forms may be obtained from the Department of Labor and Industries at the following website:

<http://www.lni.wa.gov/TradesLicensing/PrevWage/default.asp>

1-07.9(8) AUDITS

Payroll, wage, and cost records shall be retained, and may be audited or inspected, as permitted by Section 1-09.12.

1-07.10 RESERVED**1-07.11 SOCIAL EQUITY IN CONTRACTING**

The City provides assistance to contractors that desire to bid on, or have been awarded a City contract, to comply with equal opportunity, non-discrimination, Affirmative Efforts, and Apprenticeship provisions. Should a contractor desire assistance or information in recruiting, tutoring, and training or otherwise preparing potential employees and Subcontractors, a contractor may contact CPCS at 206-684-0444. For projects with an Engineer's Estimate of \$2,000,000.00 or more, the Contractor shall name a person or firm that has been qualified by the City to act as the Bidder's WMBE expert for Affirmative Efforts.

Any questions, reports, or other submittals regarding the requirements of this Section shall be directed to:

City Purchasing and Contracting Services (CPCS)

City of Seattle, Department of Finance and Administrative Services

Telephone (206) 684-0444

Physical Address:

Seattle Municipal Tower

700 Fifth Avenue, Suite 4112

Seattle, WA 98104

Mailing Address:

P.O. Box 94687

Seattle, Washington 98124-4687

1-07.11(1) EQUAL BENEFITS

The Contractor shall comply with the requirements of SMC Ch. 20.45 and the Equal Benefits Program Rules implementing such requirements, under which the Contractor is obligated to provide the same or equivalent benefits ("equal benefits") to its employees with domestic partners as the Contractor provides to its employees with spouses. At the Owner's request, the Contractor shall provide complete information and verification of the Contractor's compliance with SMC Ch. 20.45.

For further information about, SMC Ch. 20.45, and the Equal Benefits Program Rules call (206) 684-0444 or refer to <http://www.seattle.gov/contracting/equalbenefits.htm>

1. Evaluation of the Contractor's compliance with the Equal Benefits requirement will be based on the following criteria:
 - a. A domestic partner is a person (same sex or opposite sex partner) whose domestic partnership is registered either with the employer's internal registry or with a local government entity, pursuant to state or local law.
 - b. Any and all benefits shall be provided equally to spouses and domestic partners, including but not limited to health insurance, dental insurance, vision insurance, pension, company discounts, and credit union membership.
 - c. The conditions for use of benefits including but not limited to bereavement leave, family medical leave, childcare leave, employee assistance programs, and relocation and travel benefits, shall be applied equally with respect to spouses and domestic partners.
 - d. Equal benefits shall be offered to all employees at all offices where substantive work on the contract with the City of Seattle is being performed.
2. Reporting Requirements: The Apparent Low Bidder shall submit the Equal Benefits Compliance Declaration to the CPCS representative within three (3) Business Days after request.
3. Any violation of this Section shall be a material breach of Contract for which the City may:
 - a. Require the Contractor to pay actual damages for each day that the Contractor is in violation of SMC Ch. 20.45 during the term of the Contract;
 - b. Terminate the Contract;
 - c. Debar the Contractor from bidding on or being awarded a City contract for a period of up to five (5) years under SMC 20.70; or
 - d. Impose such other remedies as specifically provided for in SMC Ch. 20.45 and the Equal Benefits Program Rules promulgated there under.

1-07.11(2) WOMEN AND MINORITY BUSINESSES AND NON-DISCRIMINATION REQUIREMENTS

As noted in SMC 20.42.010, the Owner has found that minority and women businesses are significantly under-represented and have been underutilized on City of Seattle contracts. Additionally, the Owner does not want to enter into agreements with businesses that discriminate in employment or the provision of services. The Owner intends to provide the maximum practicable opportunity allowed by law for increased participation by minority and women owned businesses, as long as such businesses are underrepresented, and to ensure that the Owner's contracting practices do not support discrimination in employment and services when the Owner procures public works, goods, and services from the private sector. The Owner will not enter into contracts with Contractors that do not agree to use Affirmative Efforts to employ or contract with women and minority group members as required under SMC 20.42 or who violate any provisions of that chapter, or those requirements set forth below.

In addition, the Contractor shall comply with the provisions of RCW 35.22.650, which provides:

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

As used in this section, the term "minority business" means a business at least fifty-one percent of which is owned by minority group members.

1-07.11(2)A AFFIRMATIVE EFFORTS

The Contractor shall utilize Affirmative Efforts to solicit and contract with women and minority businesses on subcontracting and supply opportunities within the Contract scope of work. The Contractor agrees to such efforts as a condition of the Contract.

1. Affirmative Efforts shall include efforts to achieve the activities specified in the Inclusion Plan the Contractor submitted in accordance with Section 1-02.9(4). This Inclusion Plan is a part of the Contract. The Contractor shall be solely responsible for any efforts made and costs incurred to meet such WMBE Goals.
2. Reporting Requirements:

- a. If applicable, the Contractor shall submit an Inclusion Plan as indicated in Section 1-02.9(4).
 - b. If applicable, the Contractor shall submit a Social Equity Plan no later than the preconstruction conference.
 - c. The Contractor shall submit Subcontractor Payment Reports electronically through B2Gnow at: <https://seattle.diversitycompliance.com/>
 - 1) The first Subcontractor Payment Report shall be submitted no later than the 15th of the first month after the date specified in the Notice to Proceed.
 - 2) Subsequent monthly Subcontractor Payment Reports shall be submitted by the 15th day of every month thereafter. When no work is performed during a reporting period, the Contractor shall submit monthly report(s) indicating that no work was performed.
 - 3) The last Subcontractor Payment Report shall be marked as "Final" and shall be submitted no later than 30 Days after the Physical Completion Date. The final report shall list the name of and dollar amount paid to each Subcontractor and Supplier utilized by the Contractor. The Owner will not establish the Completion Date until the completed final Subcontractor Payment Report Form has been received.
 - 4) A sample of the form may be included in the Appendix section of the Project Manual but this form is submitted through an online reporting website listed above.
 - 5) The Contractor shall require each Subcontractor and Supplier to register on the City's Business Registration website, if not currently registered (this is a one-time registration process for each Subcontractor and Supplier): <http://www2.ci.seattle.wa.us/VendorRegistration/>
Contractors may use this website to look up whether the Subcontractors or Suppliers are registered or not. The Subcontractors and Suppliers shall register themselves.
3. Changes to named Subcontractors or Suppliers:
- a. A named Subcontractor or Supplier includes any WMBE firm or business named on the Inclusion Plan or the Social Equity Plan as a WMBE guarantee.
 - b. Any named Subcontractor that the Contractor wishes to substitute during the course of the project shall request the Engineer's consent through a Change Order and demonstrated "good cause." "Good cause" shall include the following:
 - 1) Failure of the Subcontractor to execute a written contract after a reasonable period of time.
 - 2) Bankruptcy of the Subcontractor.
 - 3) Failure of the Subcontractor to provide the required bond.
 - 4) The Subcontractor is unable to perform the work because they are debarred, not properly licensed, does not meet the subcontractor approval criteria, or in some other way is ineligible to work.
 - 5) Failure of the Subcontractor to comply with a requirement of law applicable to subcontracting.
 - 6) The death or disability of the Subcontractor (if the Subcontractor is an individual)
 - 7) Dissolution of the Subcontractor (if the Subcontractor is a corporation or partnership).
 - 8) If there is a series of failures by the Subcontractor to perform in accordance with previous contracts.
 - 9) Failure or refusal of the Subcontractor to perform the work.
 - c. If the Contractor is making a change to a WMBE guarantee, then the Contractor shall use good faith efforts to recruit another WMBE Subcontractor to do the Work.

1-07.11(3) EMPLOYMENT NON-DISCRIMINATION REQUIREMENTS

The City encourages Contractors to employ a workforce reflective of the region's diversity. The Contractor shall include a requirement in every subcontract that Subcontractors shall adhere to the non-discrimination requirements as set forth in Federal, State, and City laws and regulations.

The Contractor shall not discriminate against any employee or applicant for employment, and will make Affirmative Efforts to solicit and employ women and minorities, and to ensure that applicants are treated during employment without regard to race, color, age, sex, marital status, sexual orientation, gender identity, political ideology, creed, religion, ancestry, national origin; or the presence of any sensory, mental or physical handicap, unless based upon a bona fide occupational qualification. Such Efforts shall include, but not be limited to the following: employment, upgrading, promotion, demotion, or transfer; recruitment or recruitment advertising, layoff or termination, rates of pay, or other forms of compensation and selection for training, including apprenticeship.

The Owner may audit the Contractor's non-discrimination policies and practices, including Affirmative Efforts to employ women or minority employees.

Equal Employment Opportunity Officer: The Contractor shall have a designated Equal Employment Opportunity Officer ("EEO Officer").

The Contractor shall ensure that all employees, particularly supervisors, are aware of, and adhere to their obligation to maintain a working environment free from discriminatory conduct, including, but not limited to, harassment and intimidation of minorities and women, or WMBE businesses.

1-07.11(4) RECORDS

The Contractor shall furnish to the Department of Finance and Administrative Services upon request and on such form as may be provided, evidence of compliance with SMC 20.42, including the Inclusion Plan. The Contractor shall permit access to its records of employment, bidding, and subcontracting, and other pertinent data requested by the City to determine compliance with these requirements. Records shall be available at reasonable times and places for inspection by authorized representatives of the Owner.

The Contractor shall maintain, for at least 24 months after the Completion Date, relevant records and information necessary to document the Contractor's Affirmative Efforts to use WMBEs and other businesses as Subcontractors and Suppliers under the Contract. The Owner shall have the right to inspect and copy such records. The Contractor shall also require of its Subcontractors that the records of the Subcontractors be retained and open to similar inspection and copying for the same period of time.

1-07.11(5) APPRENTICE UTILIZATION

The following Apprenticeship requirements apply to projects with an Engineer's Estimate of \$1,000,000.00 or more.

1-07.11(5)A GENERAL

The Owner has determined that there is a need for increased training and apprenticeship opportunities in the construction industry and that a diverse and well trained workforce is critical to the economic as well as social vitality of the region. In establishing requirements for the use of apprentices on the Project, it is the Owner's intent to encourage the training and promotion of apprentices to journey level status.

1-07.11(5)B APPRENTICE UTILIZATION REQUIREMENTS AND GOALS

The Contractor shall ensure that fifteen percent (15%) of the total Contract labor hours utilized on the Project are performed by apprentices registered with the Washington State Apprenticeship and Training Council (WSATC).

Total Contract labor hours:

1. Include additional hours worked as result of Change Orders.
2. Exclude hours worked by foremen, superintendents, supervisors, owners, and workers who are not subject to prevailing wage requirements. However, it may be determined that they are subject to prevailing wage requirements pursuant to the following criteria of WAC 296-127-015: Two (2) supervisors (e.g. foreman, general foreman, superintendents, etc.) are entitled to receive at least the journey level prevailing rate of wage for performing manual or physical labor:
 - a. For each hour spent in the performance of manual or physical labor if it is for more than 20 percent by less than fifty percent of their hours worked on a public works project during any given week.
 - b. For all hours worked in any given week if they perform manual or physical labor for fifty percent or more of their hours worked on a public works project during such week.

The Contractor shall include the apprentice utilization requirements of this Section in all subcontracts executed for the Project, and ensure that all Subcontractors working on the Project are notified of the apprentice utilization requirements. The Contractor is responsible for meeting the apprentice utilization requirements of the Contract, including overall compliance on all Contract labor hours worked by Subcontractors.

The Contractor shall make good faith efforts to:

- 1) Ensure that apprentice hours worked are equally distributed in each trade/craft and consistent with the apprentice utilization percentage requirement of the Contract.
- 2) Recruit and hire minority and women apprentices for the Project. Of the total apprentice utilization requirement percentage, the Contractor shall pursue a goal of using twenty-one (21%) labor hours performed by minority apprentices and twenty percent (20%) labor hours performed by women apprentices.

The Contractor shall ensure compliance with RCW 49.04, WAC 296-05, and the apprenticeship training standards for each trade/craft classification used on the Project, as set forth by the Washington State Department of Labor and Industries.

1-07.11(5)C APPRENTICE UTILIZATION PLAN

On or before the date of the preconstruction meeting, the Contractor shall submit to CPCS, a comprehensive plan (as part of the Social Equity Plan Form) outlining how the apprentice utilization requirements will be met on the total Contract labor hours. The plan shall be submitted on a form provided by the Owner or by accessing <http://www.seattle.gov/contracting/apprentice.htm>

CPCS will provide assistance in directing the Contractor to available resources for hiring apprentices. The Contractor, the Engineer, and CPCS shall meet to discuss and modify the plan as may be appropriate.

1-07.11(5)D CHANGES TO THE APPRENTICE UTILIZATION REQUIREMENT

If, during the term of the Contract, the Contractor determines that it will be unable to meet the apprentice utilization percentage required by Section 1-07.11(5)B, the Contractor may make a written request to CPCS to reduce the required apprentice utilization percentage. The request shall include documentation of the Contractor's good faith efforts to hire apprentices registered with WSATC approved programs. These documents shall demonstrate:

1. That an inadequate number of apprentices are available to meet the required apprentice utilization percentage or that there is a disproportionately high ratio of material costs to labor hours, which does not make the required minimum levels of apprentice participation feasible for this Contract, and
2. That the Contractor has made good faith efforts to comply with the requirement

CPCS will evaluate the request, and if appropriate, a Change Order will be prepared by the Engineer reducing the required utilization percentage. If CPCS determines that a reduction in the required utilization percentage is not justified, CPCS will communicate the decision in writing to the Contractor.

1-07.11(5)E APPRENTICE UTILIZATION REPORTING

The Contractor and every Subcontractor shall submit a profile for each worker into LCP Tracker (through an online portal www.LCPTracker.net) including but not limited to gender, ethnicity, and apprenticeship status of each worker.

The Contractor shall submit such other information as may be requested by the Owner to verify compliance with the apprentice utilization requirements of the Contract. The Owner reserves the right to add, delete, or change as necessary the information required by the Contractor.

1-07.11(5)F MONITORING

CPCS will verify the registration of each apprentice used on the project with the WSATC. CPCS will monitor the apprentice utilization data provided by the Contractor. The Owner will make routine visits to the Project Site for the purpose of confirming the use of apprentices.

1-07.11(6) VIOLATIONS

Any violation of the mandatory requirements of the provisions of this Section or other local, state or federal non-discrimination laws, shall be a material breach of the Contract for which the Contractor may be subject to damages and sanctions, including but not limited to payment of full compensation to employees entitled to receive equal benefits during the term of the Contract who did not receive such benefits, imposition of a civil fine or forfeiture under the Seattle Criminal Code as well as various civil remedies, suspension or termination of the Contract and/or the withholding of any funds due or to become due, or debarment in accordance with SMC Ch. 20.70.

1-07.12 RESERVED

1-07.13 CONTRACTOR'S RESPONSIBILITY FOR WORK AND DAMAGE

1-07.13(1) GENERAL

Except as provided for otherwise in the Contract, the Work, including Change Order Work, shall be at the sole risk of the Contractor until the Completion Date. Until such date, damage to, or destruction of, either permanent or temporary portions of the Work, existing utilities, street improvements, Materials, or equipment and plant shall be promptly rebuilt, restored, repaired, corrected or replaced by the Contractor, at the Contractor's expense, regardless of the cause of damage.

Exceptions to the above shall be limited exclusively to the following:

1. Damage to the permanent Work caused by acts of nature, such as earthquake, flood or other cataclysmic phenomenon of nature.
2. An act of the public enemy or a government authority.
3. A slide occurring on a finished slope after the Physical Completion Date of the Work; provided, however, that this exception shall not apply should damages be by reason of the Contractor's failure to comply with any contractual responsibilities or to perform sound engineering and construction practices in the conduct of the Work, or to take reasonable precautions under the circumstances.
4. Third party damage or vandalism occurring after the Physical Completion Date.

If the performance of the Work is delayed as a result of damage by one or more others not party to the Contract, an extension of time will be evaluated in accordance with Section 1-08.8.

Damage qualifying under any of the exceptions listed in Section 1-07.13(1) above shall be corrected promptly when ordered by the Engineer, and compensation will be made in accordance with Section 1-04.4. Where public safety is affected and an emergency exists, the Engineer may elect to accomplish repair by means of Owner forces or other forces as permitted by Section 1-05.8.

Nothing contained in this Section shall be construed as relieving the Contractor of responsibility for, or damage resulting from, the Contractor's operations or negligence, or the operations or negligence of any of the Contractor's Subcontractors, nor shall the Contractor be relieved from full responsibility for making good any defective Work or unauthorized Work.

The Contractor shall bear sole responsibility for:

- 1) Damage to property located within or outside the Project Site limits as a result of the Contractor's construction operation.
- 2) Any pollution of a river, stream, ground water, or other water that may occur as a result of the Contractor's construction operation.

1-07.13(2) RELIEF OF RESPONSIBILITY FOR COMPLETED WORK

Upon written approval from the Owner, the Contractor may be relieved of the duty of maintaining and protecting certain portions of the Work, as described in this Section that have been completed in all respects in accordance with the requirements of the Contract. Such release will not affect any past, present or future claims rights of the City. The Contractor shall not be relieved from damage resulting from any flaw or defect in materials incorporated into or workmanship of the completed Work or the ongoing operations or negligence of the Contractor or any of its Subcontractors.

Portions of the Work for which the Contractor may be relieved of the duty of maintenance and protection as provided in Section 1-07.13(1) above include but are not limited to the following:

1. The completion of at least two city blocks (approximately 1/4 mile) of roadway including the traveled way, shoulders, drainage control facilities, planned roadway protection Work, lighting, and any required traffic control and access facilities.
2. A bridge or other Structure of major importance.
3. A complete unit of a traffic control signal system or street lighting system.
4. A complete unit of permanent street protection Work.
5. A building that is functionally complete and open to the public.
6. Any Contract Bid item.

1-07.13(3) RELIEF OF RESPONSIBILITY FOR DAMAGE BY PUBLIC TRAFFIC

When it is necessary for public traffic to utilize a roadway facility during construction, the Contractor will be relieved of responsibility for damage to permanent Work by public traffic under the following circumstances:

1. The Work is in accordance with the Contract or approved Drawings,
2. The Work is on a section of roadway required by the Contract to be opened to public traffic, and
3. The traffic control is in accordance with the approved traffic control plans.

If traffic is relocated to another section of roadway, the Contractor shall resume responsibility for the Work until such time as the section of roadway is again open to public traffic or the Contractor submits a written request for Work that is completed to a point where relief can be granted in accordance with Section 1-07.13(2).

1-07.13(4) REPAIR OF DAMAGE

The Contractor shall promptly repair all damage to either temporary or permanent Work as directed by the Engineer. For damage qualifying for relief under Sections 1-07.13(2) or 1-07.13(3), payment will be made in accordance with Section 1-04.4. Payment will be limited to repair of damaged Work only. No payment will be made for delay or disruption to the Work.

The Engineer may elect to accomplish repair by its own forces or other means.

1-07.14 RESERVED**1-07.15 TEMPORARY CONSTRUCTION STORMWATER POLLUTION PREVENTION**

During Work, the Contractor shall incorporate practices that prevent erosion, or control erosion when erosion is unavoidable, and shall make every effort to maintain effective erosion and sediment controls throughout the Work including implementing timely corrective actions as may be necessary. Sediment shall be prevented from entering any surface water, drainage facility, and natural drainage system, and shall be prevented from transport beyond the Project Site. Work shall comply with SPU Director Rules 2009-004, Construction Stormwater Control Technical Requirements Manual, based on SMC Chapters 22.800 through 22.808 and other codes addressing grading, stormwater control, ground water control, and other construction controls. Existing Project Site trees, vegetation, and soil shall be protected as described in Section 1-07.16. See Section 8-01 for requirements for the Construction Stormwater and Erosion Control Plan (CSECP), the Tree, Vegetation and Soil Protection Plan (TVSPP), and the Temporary Discharge Plan (TDP).

The "Stormwater Code" can be found at:

<http://www.seattle.gov/dpd/codesrules/codes/stormwater/default.htm>

The "Construction Stormwater Control Technical Requirements Manual" can be found at:

<http://www.seattle.gov/dpd/codes/dr/DR2009-16.pdf>

1-07.15(1) SPILL PLAN

The Contractor shall prepare a project specific Spill Plan (SP) to be used until the Physical Completion Date. The SP shall be submitted to the Engineer prior to the commencement of any on Project Site construction activities per Section 1-05.3(5). Occupational safety and health requirements that may pertain to (SP) planning are contained in, but not limited to, WAC 296-824 and WAC 296-843. See Section 8-01 for Spill Plan (SP) requirements.

If potential Contaminated Material(s) or potential Dangerous Waste(s) are discovered during construction, see Section 1-07.30.

1-07.16 PROTECTION AND RESTORATION OF PROPERTY**1-07.16(1) PRIVATE AND PUBLIC PROPERTY**

The Contractor shall protect from damage or destruction, Real Property within or adjacent to the Project Site including improvements thereto and fixtures found under or upon, and all personal property located within or adjacent to the Project Site that is not designated for repair, replacement or removal. The Contractor shall ensure that interference with the use of such property is minimized.

The Contractor shall, at no additional cost to the Owner, provide and install safeguards acceptable to the Engineer to protect public and private property. If public or private property is damaged or destroyed or its use interfered with by the Contractor, the Contractor's agents or the Contractor's employees, such interference shall be terminated and damaged or destroyed property repaired and restored immediately to its former condition by the Contractor (unless otherwise directed) at the Contractor's expense. Property owners, such as public and private utilities, and railroads, that typically repair or maintain their own property, reserve the right to repair all or part of the damage at the Contractor's expense. Should the Contractor refuse or not respond promptly to a written request to restore damaged or destroyed property to its original condition, the Engineer may have such property restored by other means at the Contractor's expense as permitted by Section 1-05.8.

The Contractor shall be aware that underground electrical transmission and distribution conduit and ductbanks are surrounded with cementitious fluidized thermal bedding that shall not be disturbed.

The Contractor is alerted to the existence of cast iron Water Main and of thrust block for Water Main within the Right of Way. Cast iron pipe joints have been known to develop leakage when disturbed by shifting earth, or excessive vibrations, or adverse impacts of any other construction excavation Work. Thrust blocks, typically placed against Water Main tees, bends, and dead ends, provide resistance to forces within the Water Main to prevent separation or other conditions that may lead to leakage of the Water Main. Thrust blocks typically extend beyond the Water Main and depend both on soil friction and on passive soil resistance. The Contractor shall take additional preventative measures both to eliminate adverse impact to cast iron Water Main, and to not disturb existing Water Main thrust block and the soils surrounding the thrust block.

1-07.16(1)A MONUMENT PROTECTION

Under no circumstances shall work be performed which would remove, adjust, destroy, cover or otherwise make a survey point or monument no longer visible or readily accessible without the Department of Natural Resources (DNR) survey monument permit. The Contractor shall not remove or destruct any monument until the monument has been tied out and the Contractor has provided the Engineer with a copy the Department of Natural Resources (DNR) permit authoring the removal or destruction of the monument in accordance with WAC 332-120. See Section 1-07.28 for contact information.

The Contractor shall protect all monument tie out reference points and witness monuments until the monument has been reset and the Contractor has completed the DNR's report form, provided the Engineer a copy, and forwarded it to the DNR in accordance with WAC 332-120.

1-07.16(2) TREE, VEGETATION, AND SOIL PROTECTION

All trees, vegetation, and soil not designated for removal, shall be left in place and protected from damage. If a Bid item is provided on the Bid Form, the Contractor shall develop a specific Tree, Vegetation, and Soil Protection Plan (TVSPP). The TVSPP shall show location of Best Management Practices (BMPs) related to the protection of existing (not designated for removal) and new, trees (including roots), vegetation, and soil (See Section 8-01).

Tree and other vegetation not ordered or designated for removal that are destroyed or damaged by the Work as determined by the Engineer, shall be replaced or mitigated for the diameter inches of branch and/or root loss by the Contractor as the Engineer requires at no cost to the Owner.

Unless otherwise required, replacements shall be of the same species and, as nearly as possible, the same size as the tree or vegetation to be replaced. The Contractor shall allow at least 2 Working Days advance notice for inspection and approval of replacement stock by the Engineer. Where physical limitations prevent full restoration vegetation to mitigate damages the Contractor shall be assessed damages as the difference in the dollar value between the tree or vegetation being replaced and the tree or vegetation material provided based on the "Guide for Plant Appraisal" prepared by the Council of Tree and Landscape Appraisers, current edition should such difference be determined by the Engineer. Damages assessed will be deducted from moneys due or that may become due the Contractor.

Disturbed soils, including but not limited to any areas that had vehicle traffic, materials storage, or vegetation removal as well as areas that have been graded, ripped, stripped, or trenched, shall be amended and restored as described in Section 8-02.

Tree trimming or removal in ROW frontage with overhead power lines and/or tree trimming or removal within 10 feet of METRO or Streetcar overhead trolley wires requires the advance notification specified in Section 1-07.28.

1-07.16(3) FENCES, MAILBOXES, AND MISCELLANEOUS ITEMS

The Contractor shall enclose the work area by installing and maintaining temporary fencing when Work is within easements or abuts private property. The Contractor shall be liable for all damages arising from noncompliance with this Section.

The Contractor shall follow all requirements of the U.S. Postal Service for maintenance and relocation of postal service, collection, and mail receptacles. Where U.S. Postal Service Structures need to be temporarily relocated, the Contractor shall make the notification required in Section 1-07.28. Information to be provided to the Post Office shall include the Location I.D. Number included on the box label or, if no label, the street location; date(s) needed for temporary

relocation(s), and approximate date(s) the area(s) impacted by construction will be completed. All U.S. Postal Service Structure relocation will be done by the U.S. Post Office. Access to existing or temporarily relocated postal Structures shall not be impaired. Upon completion of the Work which required the relocation of mail receptacles, the Contractor shall notify the U.S. Postal Service that the box may be reinstalled.

Before any Work limits access to, or disturbs existing mail receptacles or newspaper boxes, the Contractor shall make the notifications required in Section 1-07.28. The temporary location shall not impair their accessibility and usefulness. As soon as possible, the receptacles or boxes shall be reinstalled at their original location, or at other locations directed by the Engineer. New supports or boxes will not be required unless the original boxes or posts were damaged by the Contractor. Replacement or repairs to supports or boxes damaged by the Contractor shall be at the Contractor's expense. Mailbox height shall be in accordance with U.S. Postal Service requirements.

The Contractor shall protect existing curb, gutter and sidewalk from damage utilizing timber pads if necessary.

Where sprinkler systems are encountered in the planting strip, the Contractor shall carefully remove the existing sprinkler system for reinstallation by the Contractor after the Work in the planting strip is complete.

1-07.16(4) PAYMENT

All costs for the protection of property, and for the repair or restoration of damaged or destroyed property, as specified in Section 1-07.16, will be considered incidental to the Work. These costs shall be included in the Bid item prices for the various Bid items of Work listed in the Bid Form.

1-07.17 UTILITIES AND SIMILAR FACILITIES

1-07.17(1) GENERAL

Locations and dimensions shown in the Drawings for existing facilities and utilities are in accordance with available information obtained without uncovering, measuring or other verification.

The Contractor shall protect from damage private and public utilities including appurtenances thereto, and other facilities encountered during the Work. Utilities shall include, but are not limited to, Sewer and Storm Drain systems; water transmission and distribution systems; electrical transmission and distribution systems; natural gas distribution and transmission systems; telephone, telegraph, telecommunications, and CATV systems; fiber optic systems; fire alarm systems; petroleum pipe lines; steam distribution systems; traffic control systems; power lines; METROKOC trolley lines and feeders; rail transit infrastructure and appurtenances; pipelines, and pipeline systems, and transmission pipelines, and underground facilities as each are defined in RCW 19.122; and other similar facilities and systems.

Cast iron Water Main and some Puget Sound Energy gas distribution facilities are known to be sensitive to excessive vibration, possibly resulting in leakage. The Contractor shall exercise appropriate care when construction is near such facilities and shall cooperate with these facility owners in protecting said infrastructure.

Public and private utilities, or their Contractors, will furnish all Work necessary to adjust, relocate, repair, inspect, or construct their facilities unless otherwise provided for in the Contract or as may be ordered by the Engineer. Where it is necessary to remove or relocate utilities and facilities in order to accommodate the Work, the removal or relocation may be accomplished in advance of construction. If this removal or relocation is performed concurrently with the Work, the Contractor shall coordinate the Contract Work with that of the utilities' or facilities' owner or Contractor so as to cause the least possible interference with both kinds of work. Where a utility or facility has not been removed or relocated prior to the Contractor beginning the Work at the point affected, the Contractor shall note the presence of the facility and immediately notify the Engineer in writing.

Attention is directed to the possible existence of underground utilities and facilities that are not shown in the Contract. The Contractor shall comply with all applicable laws and notify all necessary parties, including the one number locator service, upon discovery of any utilities or facilities not shown in the Contract. When the relocation of these utilities or facilities is necessary to accommodate the Work, the Engineer will provide for the relocation of these utilities or facilities by other forces, or the relocation shall be performed by the Contractor as extra Work pursuant to a Change Order.

The Contractor may encounter side Sewers during Work operations. Side Sewers typically extends from a tee or wye connection on a Sewer or Storm Drain to a property. Beyond the property line, the side Sewer may be a single pipe or may branch into multiple pipes. Up to date plats of as-built side Sewer constructions are maintained by the SPU geographic information systems (GIS) staff. GIS mapping is located at the Department of Planning and Development Side Sewer and Drainage counter located at Seattle Municipal Tower, 20th floor, or on-line at the DPD web-site <http://web1.seattle.gov/dpd/sidesewercardsv2/> or by e-mail request: sidesewerinfo@seattle.gov. It shall be the Contractor's responsibility to locate and protect these existing side Sewers.

The Contractor is also alerted to the existence of RCW 19.122, an act relating to governing exposure of underground utilities facilities and prescribing penalties for non-compliance. Section 1-07.28 herein prescribes certain notification to be made by the Contractor; however, does not include all notification that may be necessary. Any cost or scheduling impact incurred by the Contractor by reason of Contractor's required compliance with these statutory and contractual provisions shall be borne by the Contractor. No excavation shall begin until all known utilities and facilities near the excavation area have been located and marked, and the Contractor has complied with all applicable provisions of RCW 19.122.

The right is reserved to the Engineer and the owner of utilities and facilities, or their authorized agents, to enter upon the Right of Way for the purpose of making changes, connections, inspections, or repairs to their facilities, and to monitor construction on or near their utility or facility. The Contractor shall cooperate with forces engaged in this work and shall avoid any unnecessary delay or hindrance to work or monitoring being performed by other forces. It shall be the Contractor's responsibility to make all notifications and applications needed to effectively coordinate utility and Contractor Work.

Should the Contractor desire to have an adjustment in line or grade made on a utility or other improvement for the Contractor's convenience and the rearrangement is in addition to, or different from, that indicated in the Contract, the Contractor shall timely make all necessary notifications and applications with the owner of the utility or other improvement for such rearrangement and bear all expenses in connection with that work. See Section 1-05.3(5).

The Contractor may encounter private water service utilities during Work operations. The public portion of the water service typically extends from the tap on a Water Main to the water meter and then to the union. Beyond the union, these private water-service utilities may be either a single water-service utility from the water meter or a multiple water-service utility from the water meter. Records of these utilities are not maintained by the Engineer and therefore do not appear on the Drawings and will not be field located by Seattle Public Utilities. The locations of these private utilities can usually be ascertained by relative meter location, residence location, or through discussion with various private property owners. It shall be the Contractor's responsibility to locate and protect these private water services from damage.

If it is necessary to provide temporary water supply connections due to conflict with private water services during the course of construction, it shall be the responsibility of the Contractor to do so at no additional cost to the Owner.

In all cases, private water service lines damaged by the Contractor shall be repaired by the Contractor at the Contractor's expense. The Contractor shall notify the Engineer immediately of any such damage and shall begin repairs immediately and work continuously until water service is restored. Repair of damaged private water service lines shall be inspected by Seattle Public Utilities or applicable water utility prior to backfilling.

Except as otherwise provided in the Contract, all costs incurred by the Contractor in complying with requirements of this Section shall be included in the Bid item prices for the various Bid items of Work listed in the Bid Form. If others delay or otherwise adversely affect the Work through late or improper removal or relocation or inspection of any utility or similar facility, the Contractor's loss of time or increased cost, or both, may be adjusted in accordance with Section 1-08.8.

1-07.17(2) UTILITY CLEARANCES

1-07.17(2)A WATER MAIN CLEARANCES

1. General

All utilities, both public and private, passing over, under, or parallel to existing Water Main within clearances specified in this subsection 1-07.17(2)A shall be coordinated with Water Operations at least fifteen (15) Working Days in advance of construction for approval of, and coordination with, the Engineer. See Section 1-07.28, item 7) for required notifications. A minimum of 5 foot separation horizontally from a ductile iron Water Main and 18 inch separation vertically under an existing Water Main shall be provided.

Notifications regarding shutdowns of Water Mains or obstructions of hydrants and valves or not meeting clearance requirements shall be in accordance with Section 1-07.28, item 7).

Except for gas utilities (See Section 1-07.17(2)D) and cast iron Water Main facilities (Section 1-07.17(2)A4), if a separation less than any specified clearance is unavoidable, the space between the Water Main and the other non-gas utilities shall be filled with polyethylene plastic foam material (see Section 9-05.10) before backfilling.

2. Water Main With Sewer, Side Sewer, Storm Drain, And Combined Sewer

Where possible, Sewer and Storm Drain shall be laid at a lower invert elevation than Water Main. See Standard Plan nos. 286a and 286b.

All Water Main shall be spaced apart horizontally from Sewer and Storm Drain a minimum of 10 feet, measured center to center, except the spacing may be reduced to the following "nearest point" measurements:

- a. Five (5) feet horizontal when the Water Main is a ductile iron Water Main.
- b. Less than 5 feet horizontal when the Water Main is ductile iron, and:
 - 1) The Sewer is constructed of materials and with joints that are equivalent to Water Main standards, including pressure testing requirements for a five (5) foot distance clear of Water Main.
 - 2) The bottom of the Water Main is at least 18 inches above the top of the Sewer.

New Water Main crossing over Sewer and Storm Drain shall be constructed of ductile iron and shall be spaced to provide a minimum vertical separation of 18 inches between the bottom of the Water Main and the top of the Sewer and Storm Drain. In addition to the above requirements, Water Mains passing under Sewer and Storm Drain shall be protected by providing:

- c. A minimum vertical spacing of 18 inches between the bottom of the Sewer / Storm Drain, and the top of the Water Main, and
- d. Adequate support for the Sewer and Storm Drain to prevent excessive deflection of joints and settling on the Water Main, and
- e. The point of crossing centered between two successive joints of the Water Main pipe.
- f. When the Water Main is existing and new side Sewer is being installed or reconnected, the following requirements pursuant to SMC Chapter 21.16 shall apply:
 - 1) Ductile or cast iron pipe shall be used for all side Sewer crossing over Water Mains, for a perpendicular distance of at least 5 feet clear from the center of the Water Main.

- 2) Side Sewer laid below Water Main shall be laid at least 18 inches below and 5 feet horizontal, from all Water Main and water service line as measured from the "nearest points," unless ductile or cast iron pipe is used for the side Sewer to at least five (5) feet clear from the centerline of the Water Main.

3. New Water Main Clearance With Gas Main

New Water Main to be installed crossing over or under existing gas facilities shall meet the minimum vertical clearance requirements of Section 1-07.17(2)D or Section 1-07.17(2)A whichever is greater. New Water Main installed within the specified vertical clearance of Section 1-07.17(2)D shall have a protective wrap provided and extend for the entire distance of all specified clearance.

New Water Main to be installed parallel to existing gas facilities shall be at least five (5) horizontal feet clear of the gas facility. If the minimum horizontal clearance is less than five feet but greater than three (3) feet as specified in Section 1-07.17(2)D, a protective wrap on the Water Main shall be provided.

The protective wrap shall consist of either a split PVC pipe or PVC wrapping of at least 0.04-inch thickness and shall be applied to all Water Main for a distance at least five (5) feet clear of the gas facility.

4. Cast Iron Water Main

Cast iron Water Main in Seattle's Rights of Way shall be protected as specified in Section 1-07.16(1).

Horizontal separation from cast iron Water Main shall be at least 10 feet.

The clearances stated in subsections 1-07.17(2)A1 shall also apply to all existing cast iron Water Main, water services, hydrants and hydrant connections, vaults, and chambers. Thrust blocks supporting cast iron water pipe typically located at tees, bends, and dead ends. Standard thrust block applications are shown on Standard Plan nos. 300a, 300b, 300c, 330a, 330b, 331a, 331b, 340a and 340b.

When smaller separations or clearances are unavoidable, the use of polyethylene plastic foam will not be allowed, and the Contractor shall notify the Engineer in accordance with Section 1-07.28 item 7).

Where cast iron water distribution and transmission pipe line exits and any excavation approved by the Engineer is within the clearances specified in subsection 1-07.17(2)A2, the Contractor's protective system shall be a support system (see Section 2-07 and shield systems will not be allowed.

1-07.17(2)B CLEARANCES AMONG SEWER AND/OR STORM DRAIN

Whenever a new Sewer or Storm Drain clears an existing or new Sewer or Storm Drain by 6-inch or less, polyethylene plastic foam (see Section 9-05.10) shall be placed between the pipes as a cushion prior to backfilling.

1-07.17(2)C CLEARANCES WITH ELECTRICAL DISTRIBUTION AND TRANSMISSION SYSTEMS

Whenever a proposed excavation is within 15 feet of an underground electrical distribution or transmission facility of any kind, the Contractor shall make the notification specified in Section 1-07.28, item 8) as applicable.

See Section 1-05.2(2) for information regarding the Contractor's obligations for site safety and cooperation with SCL's Electrical Safety Observer when excavation is near an underground electrical facility.

Proposals for tree planting, trimming or removal within 10 feet of overhead electrical lines less than 50Kv or within 16.5 feet of overhead power lines 50Kv or higher shall require the Contractor to make advance notification specified in Section 1-07.28, items 4) and 12) as applicable.

Proposals for tree planting, removal, or trimming within 10 feet of METRO trolley wire, Streetcar overhead wires, or Sound Transit Link Light Rail wires shall require the Contractor to make advance notification as specified in Section 1-07.28 item 4) as applicable.

Proposals for tree planting, removal, or trimming within 10 feet or more feet of varying voltage electrical transmission lines shall require the Contractor to make the notification as specified in Section 1-07.28 item 4) or 12) as applicable.

The Contractor shall not disturb the cementitious fluidized thermal backfill that surrounds underground electrical conduits and ductbanks.

1-07.17(2)D GAS MAIN CLEARANCES WITH HEAT GENERATING UTILITIES AND NON-HEAT GENERATING UTILITIES

Heat generating facilities shall include electrical distribution and transmission including grounds, steam facilities, and other heat generating sources.

Non-heat generating utilities clearance requirements:

1. For high-pressure gas main and service lateral, and for gas transmission line:
 - a. If a utility is parallel to the gas facility, then horizontal clearance shall be at least three (3) feet.
 - b. If a utility crosses over or under the gas facility, then vertical clearance shall be at least three (3) feet.
2. For non-high pressure gas main and service lateral, and for other than gas transmission line:
 - a. If a utility is parallel to the gas facility, then horizontal clearance shall be at least one (1) foot.
 - b. If a utility crosses over or under the gas facility, then vertical clearance shall be at least six (6) inch.

In no case, shall any utility make contact of any kind with a gas facility.

Heat generating utilities clearance requirements: For installing heat generating utilities within any gas facility clearance specified in this subsection, the Contractor shall make the notification required in Section 1-07.28, item 18), and shall come to agreement with the gas facility owner on protection to be provided before this construction begins.

The gas facility owner may require a protective split sleeve to surround the gas facility to a distance beyond specified clearances, and the Contractor shall provide such protection.

1-07.17(2)E TREE CLEARANCES

Planting of new trees shall meet the tree clearance requirements specified on Standard Plan no. 030.

1-07.17(2)F STANDARD LOCATION FOR UTILITIES – RESIDENTIAL STREET

Utilities located on residential streets shall meet the location standards and clearances specified on Standard Plan no. 030.

1-07.18 INSURANCE

1-07.18(1) MINIMUM INSURANCE COVERAGE, LIMITS AND OTHER REQUIREMENTS

Insurance shall provide the minimum coverages and limits of liability and meet all other requirements as set forth herein. Providing evidence of coverage for these stated minimum limits of liability shall not relieve the Contractor, any Subcontractor of any tier or any of their respective insurers from liability for claims in excess of such stated minimum limits of liability should higher limits of liability be placed.

If Work is subcontracted, applicable minimum coverages and limits of liability may be evidenced by any Subcontractor under Section 1-07.18(5) provided that such insurance fully meets the applicable requirements set forth herein and shall include the City of Seattle as an Additional Insured as specified in 1-07.18(2).

1-07.18(1)A COMMERCIAL GENERAL LIABILITY (CGL) INSURANCE

CGL insurance shall include coverage for:

1. Premises/Operations
2. Products/Completed Operations
3. Personal/Advertising Injury
4. Contractual
5. Independent Contractors
6. Stop Gap (unless insured as Employers Liability under Part B. of a Workers Compensation Insurance Policy)
7. Per project aggregate per ISO CG 25 03 (Aggregate Limits of Insurance per project) or Equivalent
8. Blasting (if explosives are used in the performance of the Work)

Such insurance shall provide a minimum limit of liability of \$1,000,000 each Occurrence Combined Single Limit Bodily Injury and Property Damage (CSL) except \$1,000,000 each Offense Personal/Advertising Injury and \$1,000,000 each Accident/ Disease - Policy Limit/ Disease - each Employee Stop Gap or Employers Liability.

1-07.18(1)B AUTOMOBILE LIABILITY INSURANCE

Automobile Liability for owned, non-owned, hired, and leased vehicles, as applicable, with a minimum limit of liability of \$1,000,000 CSL. If pollutants are to be transported, MCS 90 and CA 99 48 endorsements are required on the Automobile Liability insurance policy unless the transportation pollution risk is covered under the Contractor's Pollution Liability insurance policy.

1-07.18(1)C STATE OF WASHINGTON STATUTORY WORKERS' COMPENSATION INSURANCE

The Contractor shall comply with Workers' Compensation coverage as required by Title 51 RCW (Industrial Insurance).

1-07.18(1)D RESERVED

1-07.18(1)E RESERVED

1-07.18(1)F RESERVED

1-07.18(1)G RESERVED

1-07.18(1)H RESERVED

1-07.18(1)I RESERVED

1-07.18(1)J RESERVED

1-07.18(1)K RESERVED

1-07.18(1)L RESERVED

1-07.18(1)M RESERVED

1-07.18(1)N RESERVED

1-07.18(1)O RESERVED

1-07.18(1)P RESERVED

1-07.18(2) GENERAL REQUIREMENTS (DO NOT APPLY TO STATE OF WASHINGTON STATUTORY WORKERS' COMPENSATION INSURANCE)

1. The Contractor shall (1) not begin Work until certification of insurance as required in Section 1-07.18(5) has been delivered to and approved by the Owner, and (2) keep required insurance in force at all times during the term of the Contract. The term "insurance" herein shall include but not be limited to self-insurance, alternative risk transfer techniques, capital market solutions or any other form of risk financing.
2. Each insurer shall either be (1) authorized to do business in the State of Washington and maintain A.M. Best's ratings of A-: VII or higher, or (2) procured as surplus lines under the provisions of RCW Chapter 48.15 ("Unauthorized Insurers"), except as may otherwise be approved by the Owner.
3. "The City of Seattle" shall be included as an additional insured for primary and non-contributory basis as respects insurance coverages specified in Sections 1-07.18(1)A (CGL insurance), 1-07.18(1)B (Automobile Liability insurance) and, if required, 1-07.18(1)G (Contractor's Pollution Liability Insurance). As respects CGL insurance, Automobile Liability, and Contractor's Pollution Liability Insurance (if required), such additional insured status shall (1) be evidenced by an ISO endorsement form CG 20 10 or equivalent designated or blanket additional insured endorsement or policy language, (2) be primary and non-contributory as respects the Owner's insurance, and (3) contain a "separation of insureds" provision. ISO endorsement form CG 20 12 or equivalent endorsement or blanket additional insured language limiting additional insured status to governmental permitting shall not satisfy the requirements of this paragraph. As respects Section 1-07.18(1)B (Automobile Liability insurance), such additional insured status shall (1) be evidenced by ISO endorsement form CA 20 48 or equivalent designated or blanket additional insured endorsement or policy language, (2) be primary and non-contributory as respects the Owner's insurance, and (3) contain a "separation of insureds" provision.
4. Written notice of cancellation shall be actually delivered or mailed to the Owner not less than thirty (30) Days prior to the effective date of any cancellation except for cancellation for nonpayment of premium, which notice shall be not less than ten (10) Days prior to such date, unless a longer period of written notice is required under the provisions of Revised Code of Washington (RCW) 48.18.290 ("Cancellation by insurer.").
Notice under this paragraph shall be issued to:

The City of Seattle
FAS, City Purchasing and Contracting Services
700 Fifth Avenue, Suite 4112
P.O. Box 94687
Seattle, WA 98124-4687

 If sent by facsimile transmission, fax to (206) 684-4511; if emailed, send as a PDF or XLS format attachment to Judy.Keefe@Seattle.Gov.
5. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Owner may, after giving five (5) Business Days notice to the Contractor to correct the breach, may 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 Owner on demand, or at the sole discretion of the Owner, offset against funds due the Contractor from the Owner.
6. Any self-insured retention (S.I.R.) in excess of \$25,000 that is not "fronted" by an insurer shall be disclosed and is subject to the Owner's approval. Upon request by the Owner, the Contractor shall (1) furnish financial information that the Owner may reasonably require to assess the Contractor's risk bearing capacity, and (2) provide a written statement that the Contractor will defend and indemnify the Owner against any claim within the Contractor's S.I.R. at least to the same extent that coverage would be afforded to the Owner under the relevant insurance policy(ies) meeting the requirements stated herein. The cost of any payments for defense and indemnity falling within the S.I.R. shall be the responsibility of the Contractor.
7. The Contractor and/or any subcontractor of any tier shall comply with all of a railroad's risk management requirements (including purchasing Railroad Protective Liability Insurance) before performing construction services work adjacent to or upon a railway's right of way and/or property.
8. 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(3) SUBCONTRACTOR INSURANCE

Contractor shall contractually require that each subcontractor of every tier maintain at a minimum the insurance coverages specified in Sections 1-07.18(1)A (CGL insurance) and 1-07.18(1)B (Automobile Liability insurance) and include the City of Seattle as an additional insured for primary and non-contributory limits of liability.

1-07.18(4) NO LIMITATION OF LIABILITY; ADDITIONAL INSURED

The limits of liability specified herein are minimum limits only. Such minimum limits of liability requirements shall not be construed to limit the liability of the Contractor, that of any Subcontractor of any tier or of any of their respective insurers. Any provision in any Contractor or Subcontractor insurance policy that limits available limits of liability to those specified in a written agreement or contract shall not apply and all insurance policies, with the exception of Professional Liability and Workers Compensation, shall include the City of Seattle as an additional insured for primary and non-contributory limits of liability for the full valid and collectible limits of liability maintained by the Contractor or Subcontractor, whether such limits are primary, excess, contingent or otherwise. This provision shall apply regardless of whether limits maintained by the Contractor are greater than those required by this Contract, and regardless of whether the certification of insurance provided by a Subcontractor of any tier pursuant to Section 1-07.18(3) specifies lower minimum limits than those specified for or maintained by the Contractor.

1-07.18(5) EVIDENCE OF INSURANCE (DOES NOT APPLY TO STATE OF WASHINGTON STATUTORY WORKERS' COMPENSATION)

1. The Contractor shall deliver to the Owner certification of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the Work. The certification of insurance must include the following:
 - a. An ACORD certificate or equivalent form fully disclosing all coverages and limits of liability maintained.
 - b. A copy of the additional insured endorsement or blanket additional insured language to the Commercial General Liability and (if required) Pollution Liability insurance documenting that the City of Seattle is an additional insured for primary and non-contributory limits of liability and (if required) Products and Completed Operations Additional Insured; a statement of additional insured status on an ACORD or other form of certificate of insurance will not satisfy this requirement.
 - c. A copy of each policy's declarations page and schedule of forms and endorsements.
 - d. Any other policy language or endorsements that documents compliance with the requirements herein, including (if required) CA 99 48 and MCS 90 endorsements.
 - e. An All Named Insured Endorsement is required if the Contractor's name on the Acord, Declaration Page(s), or Schedule of Forms is different from the legal name of the Contractor on the Bid Form.
2. Should any insurance policy neither be issued nor delivered to the named insured Contractor at the time it delivers the signed Contract for the work, the Contractor shall deliver and maintain on file with the City binders of insurance evidencing compliance with the requirements herein. As soon as practicable after delivery of the policy(ies), the Contractor shall deliver the insurance certification specified in subparagraphs b., c. and d. above.
3. At any time upon the Owner's request, the Contractor shall forward to the Owner a true and certified copy of any insurance policy(s).
4. Certification of insurance shall be issued to: The City of Seattle
 FAS, City Purchasing and Contracting Services
 700 Fifth Avenue, Suite 4112
 P.O. Box 94687
 Seattle, WA 98124-4687

If sent by facsimile transmission, fax to (206) 684-4511; if emailed, send as a PDF or XLS format attachment to Judy.Keefe@Seattle.Gov.

1-07.18(6) RESERVED**1-07.18(7) RESERVED****1-07.18(8) INDEMNIFICATION**

The Contractor shall defend, indemnify, and hold harmless the Owner and its officials, officers, employees, and agents from every claim, risk, loss, damage, demand, suit, action, judgment, and attorney's fee, and any other kind of expense:

1. On account of injury to or death of any and all persons, or on account of property damage of any kind, whether tangible or intangible, or loss of use resulting there from, arising out of or in any manner connected with the Work performed or to be performed under this Contract; or
2. Caused or occasioned by the presence of the Contractor's materials, equipment, vehicles, or other personal property upon or in proximity to the property of the Owner, or an official, officer, employee, or agent of the Contractor, a Subcontractor, or a Supplier upon or in proximity to the property of the Owner, at any time before the Completion Date; or
3. Caused or occasioned by the Contractor's violation of any applicable law, regulation, or permit, or by the Contractor's breach of this Contract.

If the claim, suit, or action for injuries, death, or damage is caused by or results from the concurrent negligence of (a) the Contractor or its officers, agents, or employees and (b) the Owner or its officials, officers, agents or employees, these indemnity provisions shall be valid and enforceable only to the extent of the Contractor's negligence.

The Contractor also shall defend, indemnify, and hold harmless any county, city, or district and the officials, officers, and employees of the county, city, or district connected with the Work within the limits of which county, city or district the Work is being performed, all in the same manner and to the same extent as provided above for the protection of the Owner and the Owner's officials, officers, employees, and agents, provided that no retention of money due to the Contractor will be paid by the Owner except as provided in RCW 60.28, pending disposition of suits or claims for damages brought against the county, city, or district.

The Contractor assumes all risk of damage to its property, or injury to its officers, directors, agents, Suppliers, Subcontractors, or invitees, in or about the project from any cause, and waives all claims against the Owner. The Contractor further waives, with respect to the Owner only, its immunity under Title 51 RCW Industrial Insurance, or any other worker's compensation law.

The Contractor and the Owner acknowledge that the provisions of this Indemnification section have been negotiated by them, that the Contractor considered these obligations of this Indemnification Section in preparing their Bid, and that the Contract Price reflects this negotiation.

Neither the requirement that the Contractor maintain insurance, nor the type or amount of any insurance maintained by the Contractor, shall be construed as waiving or limiting the Contractor's liability under this Indemnification section.

1-07.18(9) WORKER'S BENEFITS

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, including payments due from Subcontractors, the Owner may retain such payments from any money due the Contractor and pay the same into the appropriate fund.

For Work on or adjacent to water, the Contractor shall be responsible for ensuring workers are covered under the Longshoremen's and Harbor Worker's Compensation Act administered by the U.S. Department of Labor, or the State Industrial Insurance coverage administered by the Washington State Department of Labor and Industries, or both coverages.

The Contractor shall include in the Bid, all costs for payment of unemployment compensation and for providing either or both of the insurance coverages. The Contractor will not be entitled to any additional payment for: (1) failure to include such costs, or (2) determinations made by the U.S. Department of Labor or the Washington State Department of Labor and Industries regarding the insurance coverage.

The Public Works Contract Division of the Department of Labor and Industries will provide the Contractor with applicable industrial insurance and medical aid classification and premium rates. 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.

1-07.19 GRATUITIES AND ETHICS

The Contractor shall not extend any loan, gratuity, or gift of money in any form whatsoever to any employee or officer of the Owner; or to the Consultant(s) or employee of Consultant(s) under contract with the Owner for services related to the Work. The Contractor shall not rent or purchase any equipment or Materials from any employee or officer of the Owner or the Consultant or employee of the Consultant.

The Contractor shall comply with all applicable sections of the State Ethics law, RCW 42.52, which regulates gifts to Owner's officers and employees. Under that statute, any Owner officer or employee who has or will participate with the Contractor regarding any aspect of this Contract is prohibited from seeking or accepting any gift, gratuity, favor or anything of economic value from the Contractor. Accordingly, neither the Contractor nor any agent or representative shall offer anything of economic value as a gift, gratuity, or favor directly or indirectly to any such officer or employee.

The Contractor shall comply with the City of Seattle's Code of Ethics in SMC 4.16 and all other applicable City codes and ordinances regulating gratuities and ethics.

1-07.20 PATENTED DEVICES, MATERIALS, AND PROCESSES

The Contractor shall assume all costs arising from the use of patented devices, Materials, or processes used on or incorporated in the Work, and agrees to indemnify, defend, and save harmless the Owner, and its duly authorized agents and employees from all actions of any nature for, or on account of the use of any patented devices, Materials, or processes.

1-07.21 ROCK DRILLING SAFETY REQUIREMENTS

It shall be the Contractor's responsibility to maintain safe working conditions during rock drilling, by keeping dust concentration below the threshold limit value or by providing those protective devices that may be required by the State Department of Labor and Industries, or both.

1-07.22 USE OF EXPLOSIVES

Explosives shall not be used without written authority of the Engineer; and then only under such restrictions as may be required by the proper authorities. When the use of explosives is necessary, the Contractor's insurance shall contain a special clause covering the blasting. Explosives shall be handled, marked, stored, and used in strict compliance with Chapter 296-52 WAC and such local laws, rules, and regulations as may apply. The stricter provisions shall apply. For Work within

The City of Seattle, the Seattle Fire Code, Article 77, shall also apply and the individual in charge of blasting shall be certified by the Seattle Fire Department. In all cases, the individual in charge of blasting shall have a current Washington State Blaster Users License.

The Contractor shall obtain, comply with, and pay for such permits and costs as may be necessary in conjunction with blasting operations. Copies of the permits shall be furnished to the Engineer. For Work within the city limits of Seattle, a permit shall be obtained from the Seattle Fire Department.

The Contractor shall use the utmost care not to endanger life or property, cause slides, or disturb the materials outside the neat lines of the cross section. Blasting near proposed Structures shall be completed before construction on such Structures is undertaken. Explosives shall not be left unprotected along or adjacent to any existing public place.

The Contractor shall provide advance written notice of the location, date, time and approximate duration of blasting to public and private utilities having facilities near the blast site and any other property owner in the vicinity who may be affected by blasting operations. Notification shall be sufficiently in advance that affected entities can take steps to protect their property from damage.

1-07.23 PUBLIC CONVENIENCE AND SAFETY

1-07.23(1) CONSTRUCTION UNDER TRAFFIC

The Contractor shall make the applicable notification(s) of Section 1-07.28 as may apply, and shall:

1. Conduct all operations with the least possible obstruction and inconvenience to the public.
2. Have under construction no greater length or amount of Work than can be continuously and vigorously prosecuted properly with due regards to the rights of the public.
3. To the extent possible, finish each section before beginning Work on the next.
4. Minimize the disruption of public traffic by:
 - a. Permitting traffic to pass through the Work with the least possible inconvenience or delay except in those areas where safety and lack of space requires detouring the traffic elsewhere.
 - b. Maintaining existing roads, streets, sidewalks, bikeways, and paths that lie next to or inside the Project Site limits by keeping them open and in good, clean, and safe condition at all times. Deficiencies caused by the Contractor's operation shall be repaired at the Contractor's expense. Deficiencies not caused by the Contractor's operations will be repaired by Owner forces at the Owner's expense. The Contractor shall also maintain roads, streets, sidewalks, bikeways, and paths adjacent to the Project Site when they are affected by the Contractor's operations. Removing or repairing any condition resulting from the Work or Contractor's operations that might impede traffic or create a hazard including the removal of deposits and debris that accumulates on the roadway surface (see Section 1-04.11).
 - c. If the Contractor fails or refuses to clean the streets, trucks, or equipment as required by the Engineer, the Engineer may order the Work suspended at the Contractor's risk until compliance with the Contractor's obligation is assured. The Engineer may also order the streets in question cleaned by others and such costs incurred by the Owner in achieving compliance with these Contract requirements, including cleaning of the streets, shall be deducted from any progress payment due to the Contractor. The Contractor shall have no claim for delay or additional costs if the Engineer chooses to suspend the Contractor's Work until compliance is achieved.
 - d. Maintaining existing, permanent signs and not relocating or removing traffic control and street name signs that interfere with construction until absolutely necessary; and installing and maintaining temporary pavement markings and striping on the roadway using temporary pressure sensitive tape when necessary. The Contractor shall be responsible for scheduling when to renew striping and pavement marking, subject to the Engineer's approval.
 - e. Providing access at all times to emergency traffic such as police, fire, and disaster units.
 - f. Coordinating construction operations with all disposal firms and transit bus service that may be operating within the Project Site. If METROKC operates in the area of Work, the Contractor shall maintain the Project Site in such a manner that transit bus service, including access to bus zones, is safe and convenient. Whenever it is necessary to modify METROKC Transit Bus or Trolley Service (such as closure or temporary relocation of a bus stop or on-street bus staging area, removal of a bus shelter, closure of or detour of a bus route, construction in a roadway where bus transit is granted access and transit should be made aware of, or requesting a temporary weekend-only diesel bus for an electric trolley), the Contractor shall make the notification in accordance with Section 1-07.28, item 4).
 - g. The Contractor shall be liable for any damage to property or persons, resulting from failure to comply with Subsection 1-07(23)(4)(f).
 - h. Keeping existing traffic signal and lighting systems in operation as the Work proceeds. (The Owner will continue the routine maintenance on such systems.)
5. Protect the rights of abutting property owners by:
 - a. Planning and conducting construction operations so that the least inconvenience possible is caused to abutting property owners;

- b. Make the required notification(s) when it is impractical to carry on the construction and maintain traffic simultaneously, or maintain ready and convenient pedestrian and vehicular access to driveways, houses, and buildings along the line of Work;
 - c. The Contractor shall post signs and barricades advising street closure at the nearest intersections away from the closed portion of the street and on all cross-streets. Street closings shall not exceed 2 blocks in length at any one time unless approved otherwise by the Engineer;
 - d. Make the required notification(s) when street closure is required in the preparation of the roadway for placement of asphalt pavement, concrete pavement, sewer excavation, or other construction that prohibits safe vehicular traffic notifying abutting property owners and tenants of any restrictions that might affect access to their property;
 - e. Providing temporary approaches to crossing or intersecting roads and keeping those approaches in good condition; and
 - f. Providing another access before closing an existing one whenever the Contract calls for removing and replacing an abutting owner's access. The existing access shall not be closed until the replacement access facility is available; and
6. When traffic must pass through grading areas, the Contractor shall:
- a. Make cuts and fills that provide a smooth, even roadbed;
 - b. Place, in advance of other grading Work, enough fill at all Culverts and bridges to permit traffic to cross;
 - c. Make roadway cuts and fills, if ordered by the Engineer, in partial-width lifts, alternating lifts from side to side to permit traffic to pass on the side opposite the Work;
 - d. Install Culverts on half the width of the traveled way, keeping the other half open to traffic and unobstructed until the first half is ready for use;
7. After rough grading or placing any subsequent layers:
- a. Prepare the final roadbed to a smooth, even surface (free of humps and dips) suitable for use by public traffic; and
 - b. Settle dust with water, or other dust palliative, as the Engineer may order.
8. If grading Work is on or next to a roadway in use, the Contractor shall finish the grade immediately after rough grading and place surfacing Materials as the Work proceeds.
9. Conduct all operations to minimize any drop offs ("drop-off" is defined as abrupt changes in roadway elevation) left exposed to traffic during non-working hours. Unless otherwise directed in the traffic control plan, the Contractor shall also protect drop offs left exposed to traffic during non-working hours as follows:
- a. Drop offs up to 0.20 foot may remain exposed with appropriate warning signs alerting motorists of the condition.
 - b. Drop offs more than 0.20 foot that are in the traveled way will not be allowed unless motorists are informed about the danger of a drop off immediately ahead of them with appropriate warning signs and protection is provided as indicated in the immediately following subparagraphs c.1) or c. 2).
 - c. Drop offs with depths more than 0.20 foot, but no more than 0.50 foot, that are not within the traveled way will not be allowed unless motorists are informed about the danger of a drop off immediately ahead of them with appropriate warning signs and further protected by having one of the following:
 - 1) Channeling devices (Type I barricades, plastic safety drums, or other devices 36 inches or more in height) placed along the traffic side of the drop off and a new edge of pavement stripes placed a minimum of 3 feet from the drop off on the traffic side. The "number" in feet of maximum spacing between the devices shall be the posted speed "number" in miles per hour. Signs, warning of pavement drop off, shall be placed in advance of and throughout the drop off treatment.
 - 2) Temporary concrete barrier or other approved barrier installed on the traffic side of the drop off with 1 foot between the drop off and the drop off side of the barrier, and a new edge of pavement stripe a minimum of 2 feet from the face of the traffic side of the barrier. An approved terminal, flare, or impact attenuator will be required at the beginning of the barrier facing oncoming traffic. For night use, the barrier shall have standard delineation such as paint, reflective tape, lane markers, or warning lights.
 - d. Drop offs more than 0.50 foot not within the Traveled Way shall be marked with appropriate warning signs and further protected as indicated in the immediately preceding subparagraphs c. 1) or c. 2) if all of the following conditions are met
 - a) The drop off is less than 2 feet;
 - b) The total length throughout the project is less than 1 mile;
 - c) The drop off does not remain for more than three (3) Working Days;
 - d) The drop off is not present on any of the Holidays listed in Section 1-01.3; and
 - e) The drop off is only on one side of the roadway.
 - e. Drop offs more than 0.50 foot that are not within the Traveled Way and are not otherwise covered by the immediately preceding subparagraph d above shall be both protected with appropriate warning signs and with protections as specified in item c. 2) this subsection.

10. Open trenches within the traveled way shall have a steel plate cover placed and anchored over them. A wedge of suitable material, if required, shall be placed for a smooth transition between the existing surface and the steel plate; see Section 2-02.3(8). Warning signs shall be used to alert motorists of the presence of the steel plates.
11. Castings that are exposed and are not in the plane of adjacent surface due to construction involving the surrounding surface, shall have temporary transition tapers on all sides of the exposed casting consisting of temporary pavement patch material or other suitable material to prevent nuisance to traffic.
12. Whatever other specific Work the Contract indicates is to be furnished or performed by the Owner or Engineer.

1-07.23(2) PEDESTRIAN CONTROL AND PROTECTION

When the Work area encroaches upon a sidewalk, walkway or crosswalk area, special consideration shall be given to pedestrian safety. Maximum effort shall be made to separate pedestrians from the Work area.

Protective barricades, fencing, and bridges, together with warning and guidance devices and signs, shall be utilized so that the passageway for pedestrians is safe and well defined. Whenever pedestrian walkways are provided across excavations, they shall be provided with suitable handrails. Footbridges shall be safe, strong, free of bounce and sway, have a slip resistant coating, and be free of cracks, holes, and irregularities that could cause tripping. Ramps shall be provided at the entrance and exit of all raised footbridges, again to prevent tripping. Adequate illumination and reflectorization shall be provided during hours of darkness. All walkways shall be maintained at least 4 feet clear width except in areas of unusually heavy pedestrian traffic such as business districts, where the minimum clear width shall be 8 feet.

Where sidewalks are required to be closed by construction, an alternate walkway shall be provided, and to the extent reasonably feasible, the walkway should be ADA compliant including curb ramps and detectable warnings.

Where it is necessary to divert pedestrians into the roadway, barricading or channeling devices shall be provided to separate the pedestrian walkway from the adjacent vehicular traffic lane. At no time shall pedestrians be diverted into a portion of a street used concurrently by moving vehicular traffic.

At locations where adjacent alternate walkways cannot be provided, appropriate signs shall be posted at the limits of construction work zone, and in advance of the closure at the nearest crosswalk or intersection, to divert pedestrians to an alternate walkway.

Physical barricades, in accordance with the current version of the City of Seattle Traffic Control Manual and 2009 MUTCD, shall be installed to prevent people with visual impairments from inadvertently entering a Work area or closed construction area. Pedestrian access shall be maintained to all properties adjacent to the Work area.

1-07.23(3) SPEED AND PARKING CONTROL

See Section 1-10.3(3)N for alteration of the legal (or posted) speed limit or parking control.

1-07.24 REAL PROPERTY RIGHTS

Restrictions to access such as Right of Way margins, parcel boundaries, limits of easements and other Real Property rights, and limits of construction permits obtained by the Owner, will be indicated in the Contract, but may not always be shown on the Drawings. The Contractor's construction activities shall not be allowed beyond these restrictions to access. An exception may be allowed if such exception is the use of private property, and such use of private property is not in violation of a condition in the Contract, arrangements for such use of private property are made prior to commencement of construction, and the Engineer is informed of such arrangement prior to use of said property.

The Owner will obtain, prior to Bid opening, all Real Property rights, both permanent and temporary, necessary for carrying out the Work.

Whenever any of the Work is accomplished on or through property other than public street Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any Real Property agreement obtained by the Engineer from the owner of the private property. Copies of the Real Property rights documents will be included in the Project Manual or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

The Contractor shall not proceed with any portion of the Work on private property where Real Property rights have not been secured. If the Contractor is delayed due to acts of omission on the part of the Owner in obtaining Real Property rights, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of Contract.

Each property owner shall be notified in advance of the Contractor's entry onto that owner's property pursuant to Section 1-07.28. This includes entry onto private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Owner, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of Materials, or other Contractor needs. Before using any private property, whether adjoining the Work or not, the Contractor shall file with the Engineer a written statement granting permission by the property owner for such property use. Upon vacating the private property, the Contractor shall file with the Engineer a written release from the property owner. Each property disturbed or otherwise interfered with by the Contractor for reasons of construction pursued under this Contract shall require a written permission and written release. The written permission and written release shall be signed by the private property owner, or proper authority acting for the owner of the property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property including cleanup as required in

Section 1-04.11 has been satisfactorily accomplished. The written permission and written release shall include the parcel number, address, and date of signature. Written releases shall be filed with the Engineer before the Physical Completion Date can be established (see Section 1-05.11(2)).

1-07.25 OPENING OF SECTIONS TO TRAFFIC

The Owner reserves the right to use and open any portion of the Work before the Physical Completion Date without constituting acceptance of any of the work. This action will not cause the Owner to incur any liability to the Contractor except as may otherwise be provided in the Contract.

If the Engineer opens any portion of the Work prior to the Physical Completion Date because early opening is specified in the Contract, or the Contractor has failed to prosecute the Work continuously and efficiently, then any Work remaining after that portion of the project is open to traffic shall be performed at Bid item prices for Bid items of Work involved. No additional compensation will be made for costs incurred by the Contractor because of:

1. Inconvenience, additional length of travel to conform to established traffic patterns, or planned access features.
2. Compliance with statutes governing traffic regulations and limitations of loads.
3. Additional flagging costs necessary to protect the Work and the traveling public.

The Contractor shall take all costs due to traffic using portions of the Work into account when submitting the Bid, and the unit Contract prices for the various items of Work involved shall include these costs.

1-07.26 NO WAIVER OF OWNER'S LEGAL RIGHTS; ASSIGNMENT OF CLAIMS FOR DAMAGES FOR ANTI-TRUST LAW VIOLATIONS

The Owner shall not be precluded or estopped by any measurement, estimate, certificate or payment made, whether before or after the Completion Date, from showing the true amount and character of the Work performed and Materials furnished by the Contractor, or from showing that any such measurement, estimate, payment or certificate is untrue or incorrectly made, or that the Work or Materials do not conform in fact to the Contract. The Owner shall not be precluded or estopped notwithstanding any such measurement, estimate or certificate and payment from recovering from the Contractor and the Contractor's Sureties such damages as the Owner may have sustained by reason of the Contractor's or Sureties' failure to comply with the terms of the Contract and bond. Neither the establishment of the Completion Date by the Owner, nor any payment for the whole or any part of the Work, nor any extension of time, nor any possession taken by the Owner shall operate as a waiver of any portion of the Work, or of any power herein reserved to the Owner, or any right to damages herein or otherwise provided or bar recovery by the Owner of any money wrongfully or erroneously paid to the Contractor. A waiver by the Owner of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor and the Owner recognize that the impact of any overcharge to the Owner by the Contractor resulting from an anti-trust law violation by any Materialperson or Subcontractor of the Owner adversely affects the Owner rather than the Contractor. Therefore the Contractor assigns to the Owner any and all claims for such overcharges.

1-07.27 RESERVED

1-07.28 NOTIFICATIONS RELATIVE TO CONTRACTOR'S ACTIVITIES

The Contractor shall plan and schedule Contractor Work activities to conform to and allow time for notifications, approvals, reviews, and other conditions of the Contract.

The Engineer will initially notify public and private entities having facilities within the Project Site of:

1. The approximate time the Work will begin.
2. What the project scope of Work is.
3. Utilities in the street Right of Way that require relocation per the project design.

Thereafter the Contractor shall make the following notifications regarding Work performed within the Project Site and other areas affected by the Contractors operations in performance of the Work, as applicable. Notification shall give information germane to the type of Work to be performed. The information shall include, but shall not be limited to the time of commencement and completion of the Work, Work hours, location of the Work, names of streets affected by the Work, schedule of operation, routes of detours, and closures.

1) For Work Outside the Seattle City Limits:

Notifications shall be provided in accordance with permit and other requirements of the agency having jurisdiction. The Contractor shall be familiar with those requirements prior to starting Work.

- a. For Work on roads and highways outside the Seattle City limits but within King County, notifications shall be made as indicated below, as otherwise indicated in the permit(s), or by the requirements of the agency having jurisdiction over those roads and highways. Construction permits in the King County Right of Way may be obtained by calling 206-296-7456. In unincorporated areas of King County, the following shall be notified at least two (2) Working Days in advance:
 - 1) King County Roads Division (206-296-8100),
 - 2) King County Fire Marshall's Office (206-296-6675), and
 - 3) King County Police (1-800-344-4080 or 206-296-3311).

- b. For all other areas within the Project Site and other areas affected by the Contractors operations in performance of the Work notifications shall be made as indicated in the Contract, as otherwise indicated in permit(s), or by the requirements of the agency having jurisdiction.
- 2) **For Work That Partially or Completely Restricts Any Seattle Arterial, Street, Sidewalk, or Alley:**
 After receiving approval of the traffic control plan (see Section 1-10.2(5)), the Contractor shall provide notice to SDOT (at 206-684-7623 Monday to Friday 8:00 AM to 5:00 PM) by 2:00 PM at least 1 Working Day before the start of Work within the street Right of Way. The Contractor shall also provide SDOT notification upon completion of Work within the street Right of Way by no later than 9:00 AM the first Working Day following completion. This notification requirement includes partial or full lane closures, parking restrictions, sidewalk closures, detours, complete or partial street closures, shoulder work, and pedestrian rerouting, as well as the placing of building Materials or equipment on city streets, sidewalks, or alleys.
- a. Complete or partial closure of any street: In addition to notifying SDOT, provide 24-hours advance notification to the following:
- 1) Within Seattle City Limits:
 - a) Seattle Fire Department (206-386-1494).
 - b) Seattle Police Department, Parking Enforcement, and Traffic Section of the Seattle Police Department (206-684-5101 FAX - written notification only).
 - b. Complete closure of any arterial within the Seattle City Limits: Provide 3 Working Days advance notice to SDOT (206-684-7623) Monday to Friday 8:00 AM to 5:00 PM.
 - c. Complete closure of any local access street, alley, or sidewalk within the Seattle City Limits: Provide notice to SDOT (at 206-684-7623 Monday to Friday 8:00 AM to 5:00 PM) by 2:00 PM at least 1 Working Day in advance.
 - d. To restrict parking on any street within the Seattle City Limits: Provide 2 Working Days advance notification to SDOT (206-684-7623 Monday to Friday 8:00 AM to 5:00 PM). To arrange for inspection of "No Parking" easels and other parking related signs by a parking enforcement officer or uniformed peace officer, contact 206-386-9012 after placing the easels and 24 hours in advance of the effective date of enforcement on the easels (see Section 1-10.2(5)C, item 4.).
 - e. When signs are "Owner furnished", signs will be provided by SDOT. To order signs, or to coordinate SDOT's installation of signs, the Contractor shall provide at least 15 Working Days and no more than 20 Working Days advance notification to the Engineer and shall verify signs and locations per the Contract for signs to be installed by the Contractor, and/or give notification of signs to be installed by SDOT. The Contractor shall provide a list of locations and specify the number(s) and type(s) of signs needed and include contract information for the coordination of work to be performed by SDOT crews. The Engineer will notify the Contractor of when the signs are ready for pickup. The Contractor shall pick up the signs at the SDOT sign shop at 4200 Airport Way South on Business Days between the hours of 8:00 AM to 3:00 PM.
 - f. To coordinate the installation of the BUS ZONE SIGNS, "NUMBERED" BASE PLATES and SIGNS ASSOCIATED WITH PARKING PAY STATIONS, contact SDOT Traffic at (206-684-5092) at least 10 Business Days prior to completion of new sidewalk work or scheduled mounting of signs on existing infrastructure.
 - g. To coordinate and/or to verify location of the installation of the TRAFFIC SIGN, STREET DESIGNATION SIGNS, and STREET NAME, contact SDOT at (206-684-5370) at least 10 Business Days prior to completion of new sidewalk work or scheduled mounting of signs on existing infrastructure.
- 3) **City of Seattle - Signage, Parking Pay Stations, Parking Meters:**
- a. Parking Meters, Parking Pay Stations, and sidewalk containing D-22 signage ("Pay R", "Pay L", "Pay H", and "Pay RL" signs and posts) and "numbered" base plates: ten (10) Working Days advance notice is required for the following:
- 1) To request covering of parking meter(s) and placing no parking markers on "numbered" base plates where parking pay stations exist, contact 206-684-5086 (see Section 1-10.3(3)N).
 - 2) To request removal of parking meter(s), parking pay station(s), and sidewalk containing D-22 signage and "numbered" base plate, contact 206-684-5370. Also see Section 2-02.3(3)F.
 - 3) After completion and acceptance of newly constructed sidewalk, to request installation of parking pay station, D-22 signage, and "numbered" base plates, contact 206-684-5370.
 - 4) The Contractor shall reimburse SDOT for lost parking revenue unless this is an SDOT Project.
- b. Traffic Signs and Street Designation Signs: See Section 8-21.3(1)A.
- 4) **Disruptions to, or service modification requests for METROKBC Transit, Streetcar service and facilities, or Sound Transit Link Light Rail service and facilities:**
- a. Contact the Construction Information Center (CIC) at 206-684-2732 or 206-684-2785 (for non-trolley requests) and 206-684-2792 (for trolley requests) or email construction.coord@kingcounty.gov or see the website at <http://www.kingcounty.gov/transportation/kcdot/MetroTransit/Construction.aspx> for the following:

- 1) For work resulting in temporary closure/relocation of a bus stop or for work within an area of a bus stop that will limit full access to it by coaches and pedestrians/passengers, three (3) Business Days advance notification is required.
 - 2) For work resulting in Metro removing any transit facility structure including, but not limited to shelters, boards/kiosks and bus stop signs, fifteen (15) Business Days advance notification is required.
 - 3) For work resulting in road closure on which buses operate that will require rerouting, ten (10) Business Days advance notification is requested while five (5) Business Days advance notification is required.
 - 4) For work resulting in a full or partial road closure on which a streetcar operates that does not require overhead line deactivation or a shutdown to its track operation, a five (5) Business Days advance notification is required.
 - 5) The request for assignment of diesel coaches for electric coaches on electric trolley routes on non-Business Days shall be made no later than ten (10) Business Days prior to the weekend requested (COB Monday two weeks prior). Metro will not grant diesel coach substitutions on Business Days. If line deactivation is required see b) below.
- b. Contact METROKC at 206-263-6580 for overhead power wire requests as follows:
- 1) Overhead power line modification or outage requests for an electric bus require ten (10) Business Days advance notification (by COB Monday two weeks prior). Request forms shall be submitted to Construction Information Center (email above). Trolley bus overhead deactivation is limited to weekends only (4:30 AM Saturday morning until 2:00 AM Monday morning).
 - 2) Overhead power line modification or outage requests for a streetcar require ten (10) Business Days advance notification (by COB ten days prior). Request forms shall be submitted to Construction Information Center (email above). Streetcar deactivations are limited to non-operational hours during periods when Streetcar staff are not testing cars or training new operators.
 - 3) When working within ten (10) feet of any electric bus or streetcar overhead power, ten (10) Business Days advance notification is required. It is the responsibility of the Contractor to adhere to Washington Administrative Code guidelines in regards to working within the vicinity of high voltage lines.
 - 4) Requests for overhead power line modification or outage may have an associated cost payable by the Contractor. In addition, outage requests for non-SDOT projects may be subject to a recently-legislated King County Trolley Ordinance Fee. The Contractor shall consult with MetroKC to determine costs and include such costs within the Bid. Requests may require additional information. Approval is dependent on METROKC Transit Power Distribution's ability to perform requests (some overhead power line modification requests may require more than ten (10) Business Days advance notification).
- c. For **Sound Transit Link Light Rail** (Right of Way) and power outage requests, call 206-903-7696. If work affects both rail and busses, the Construction Information Center listed above under a. also needs to be notified.
- 5) **Property access restrictions:**
Provide abutting property owners and tenants of impending access restrictions. Advance notification shall be 24-hours for residential property and 2 Business Days for commercial property.
 - 6) **Emergency Work for City of Seattle Pavement or Sidewalk Problems:**
Provide immediate notification to: SDOT (206-684-7623 Monday to Friday 8:00 AM to 5:00 PM, all other times 206-386-1218).
 - 7) **Water Mains, Hydrants, Water Services, and Related Appurtenances**
 - a. **Shutdowns and Obstructions:** For all shutdowns involving facilities owned by Seattle Public Utilities, for any Work involving water service and/or water service connections, and for any hydrant access restrictions, the Contractor shall coordinate scheduling and notification with the Seattle Public Utilities Water Operations Division via the Engineer. The same applies to Work that will obstruct normal access to any fire hydrant or water utility valve. The Contractor shall not operate, and shall not restrict access to, any water valve owned by the Seattle Public Utilities. Notifications shall be as follows:
 - 1) **Within SPU Water Service Franchise Area:** Seattle Public Utilities Water Operations (206-386-1800). Water Main shutdown notifications and advisories regarding fire hydrant status will be given to fire agencies by SPU Water Operations.
 - a) All Work impacting Water Mains, water service or water service connection shall require a minimum of three (3) Working Days advance notice to the Engineer. The Engineer will plan and coordinate the shutdown with Water Operations.
 - b) All Work requiring a shutdown of a Water Main, interruption of water service or restricting access to hydrants or valves shall require a minimum of five (5) Working Days advance

- notice to the Engineer. The Engineer will plan and coordinate the shutdown with Water Operations.
- c) All Work requiring Water Main shutdowns in commercial, industrial and critical service areas and in areas where over 5% of the population consists of a specific language group other than English shall require a minimum of seven (7) Working Days advance notice to the Engineer. The Engineer will plan and coordinate the shutdown with Water Operations.
 - d) All Work on pavement impacting castings and Structures connected to the water distribution or water transmission system shall require a minimum of five (5) Working Days advance notice to the Engineer. The Engineer will plan and coordinate with Water Operations.
- 2) **Within King County:** Seattle-King County Department of Public Health (206-296-4722). At least 2 Working Days advance notice is required.
 - 3) **Outside SPU Water Service Franchise Area and outside King County:** The Contractor shall notify the water service franchise as indicated in the Contract, as otherwise indicated in permit(s), or the agency having jurisdiction.
- b. **Application for New and Temporary Water Service within SPU Water Service Franchise Area:** Contact SPU Customer Service at 206-684-5800.
 - c. **Water Mains and Clearance with other Utilities within SPU Water Service Franchise Area:**
 - 1) When proposed underground utilities are within the clearance limits of water pipe other than cast iron (Section 1-07.17(2)A.2., any required Contractor notification will be addressed in the Contract.
 - 2) When excavation is proposed near a cast iron water pipe (Section 1-07.17(2)A.4., Contractor required notification will be addressed at the preconstruction conference (Section 1-08.1(2)A).
 - d. **Backflow Prevention Assembly (BPA) Inspection within SPU Water Service Franchise Area:** When a backflow prevention assembly is required in any temporary or permanent connection with a Water Main, the Contractor shall request inspection by making the following notification at least two (2) Working Days in advance of making the connection to the Water Main (see Sections 2-12, 8-03.3(1), 8-03.3(8), and 9-30.16):
 - 1) Denny Way and north 206-233-2635, or
 - 2) South of Denny Way 206-684-3456.
 - e. **Hydrant permit for temporary withdrawal of water within SPU Water Service Franchise Area:** See Section 2-07.3(2).
- 8) **Electrical Safety and Service within SCL Service Area:**
- a. **Electrical Safety Observer:** To schedule an Electrical Safety Observer, notify Seattle City Light at least seven (7) Working Days in advance of the need to enter a Seattle City Light vault, or to work on or within any other Seattle City Light electrical Structure or facility, or to work on or near any Seattle City Light electrical transmission or distribution system (206-684-4911). See Section 1-05.2(2).
 - b. **Electrical Service Connection and Inspection:** To schedule an electrical service connection or inspection other than street lighting and signals (see Section 8-30.1(1)) and other than irrigation (see Section 8-03.3(1), contact 206-684-3000 at least thirty (30) Days in advance.
 - c. **Excavation at or near Underground Electrical Distribution and Transmission System:** When proposed excavation is within the vicinity of underground electrical distribution and transmission facilities per Section 1-07.17(2)C, the Contractor shall notify Seattle City Light at least ten (10) Working Days in advance of the excavation as follows:

At and North of Denny Way:	(206) 615-0600.
South of Denny Way:	(206) 386-4200.
 - d. **Streetlight System Inspections:** To schedule an inspection for streetlight systems, contact SCL at least ten (10) Days in advance.
- 9) **Sanitary Sewer Spills:**
In the event of a sanitary Sewer spill immediately notify:
- a. Public Health – Seattle & King County (206-296-4632) within King County.
 - b. METROKC (206-263-3801) within King County.
 - c. Seattle Public Utilities (206-386-1800) within SPU service area.
 - d. The Sewer service as indicated in the Contract, as otherwise indicated in permit(s), or the agency having jurisdiction.
- 10) **Chemical, Oil, Hazardous Substance, or other Contaminant Spill or Discharge or Release:**
When the Contractor first becomes aware of an environmental spill, discharge or release of: chemicals, oil, hazardous substances, Contaminated Material(s), Dangerous Waste(s), or TSCA Waste(s) the Contractor shall immediately notify:
- a. The Engineer always and Seattle Public Utilities
 - b. if within SPU service area including watersheds (206) 386-1800, **and**
 - c. If into Lake Union, Ship Canal, or Puget Sound:

- 1) U.S. Coast Guard (206) 217-6001) or the National Response Center, Washington, D.C. 1-800-424-8802 (operated 24 hours a Day), **and**
 - 2) Washington Department of Fish and Wildlife (425)-313-5660, **and**
 - 3) Seattle Harbor Patrol (206) 684-4071.
- d. If into any side Sewer, sanitary Sewer or combined Sewer if within King County:
- 1) King County Industrial Waste (206) 263-3000) Monday to Friday 8:00 AM to 5:00 PM, or
 - 2) West Point Treatment Plant (206) 263-3801 at all other times.
- e. If into Storm Drain, sanitary Sewer, combined Sewer, side Sewer, rivers, streams, lakes:
- 1) Washington State Department of Ecology (425) 649-7000, **and**
 - 2) If within Seattle, the Seattle Surface Water Quality Hotline (206) 684-7587, elsewhere the Sewer service as indicated in the Contract, as otherwise indicated in permit(s), or the agency having jurisdiction.
- f. For flammable or hazardous materials: Seattle Fire Department 911.
- 11) **Seattle Monorail:** When Work is within 10 feet of any portion of the monorail Structure above ground, or is within 20 feet of any portion of the monorail Structure below ground, the Contractor shall contact Seattle Monorail at 206-396-5490 or 206-905-2605 at least ten (10) Working Days in advance of construction.
- 12) **Overhead Electrical Power Lines and Trees:**
When tree trimming or tree removal is within 10 feet of overhead power lines less than 50kV or within 16.5 feet of overhead power lines 50kV or higher, if within SCL service area contact Seattle City Light at least seven (7) Working Days in advance at 206-386-1663, else contact as indicated in the Contract, as otherwise indicated in permit(s), or the agency having jurisdiction. See Sections 1-07.16(2) and 1-07.17(2)C.
- 13) **Underground Utility Locator:**
The Contractor shall call the Utilities Underground Location Center at 811 (or 1-800-424-5555) not less than two (2) or more than ten (10) Working Days before the scheduled date for commencement of any excavation that might affect underground facilities. Alternate notification time periods limits may be substituted if mutually agreed to, in writing, by the Contractor and utility involved. If a utility is known to have, or suspected of having, underground facilities within the area of any proposed excavation, and that utility is not a subscriber to the Underground Utilities Location Center, notice by the Contractor shall be provided individually to the utility. See Section 1-07.17(1).
- 14) **Entry onto Private Property:**
Each property owner shall be given 2 Business Days advance written notice prior to entry by the Contractor (see Section 1-07.24).
- 15) **U.S. Postal Service Collection Boxes, Mail Receptacles, and other Structures:**
U.S. Postal Service collection box and other Structures requiring temporary relocation to accommodate construction, the Contractor shall contact 206-241-7061 at least five (5) Working Days in advance for coordination. Only the U.S. Post Office will move postal property (see Section 1-07.16(3)).
- 16) **Signalized Intersections, Traffic Signals, and Loop Detection Systems:**
Where pedestrian and/or vehicular signals, or a loop detector system, or a signalized intersection are impacted, or will be impacted by construction (see Sections 1-07.17(1) and 8-31.1(1)), within the City of Seattle the Contractor shall provide at least ten (10) Working Days advance notice to 206-386-1206 for coordinating temporary signal wire disconnect and temporary signal timing requirements, else contract as indicated in the Contract, as otherwise indicated in permit(s), or the agency having jurisdiction.
- 17) **Survey Monumentation:**
When proposed construction or other activity requires removal or destruction of a monument, at least 2 Working Days prior this work, the Contractor shall provide the Engineer with a copy the Department of Natural Resources (DNR) permit authoring the removal or destruction of the monument in accordance with WAC 332-120. Removal or destruction is defined to mean the physical disturbance or covering of a monument such that the survey point is no longer visible or readily accessible. Prior to Physical Completion, the Contractor shall provide the Engineer with a copy of the DNR final report form. For permitting information see http://www.dnr.wa.gov/Publications/eng_plso_permit_to_remove_destroy_mon.pdf or call DNR at (360) 902-1194. At the time the permits are provided to the Engineer, the Contractor shall forward a copy of this initial DNR permit with authorizing signatures and final report form to the Land Survey Manager, Seattle Public Utilities, physical address: Seattle Municipal Tower, 700 5th Avenue, or mailing address: PO Box 34018, Seattle, WA 98124-4018
The Contractor may request SPU Survey Section to perform the monument permitting and Surveying. Contact the Land Surveying Manager at (206)-684-5073.
If SPU Surveying is to perform the work, the following shall apply:
- a. Before removing monument castings, the Contractor shall provide a minimum 4 Working Days advance notice to the SPU Land Survey Section to allow SPU survey crews to tie the survey point or monument out and to obtain the DNR monument permit.
 - b. Before placing monument casting, the Contractor shall provide a minimum 4 Working Days advance notice to the SPU Land Survey Section to allow SPU survey crews to provide the monument casting placement location.

- c. Within 4 Working days after placing the monument casting, the Contractor shall notify the SPU Land Survey Section to allow SPU survey crews to reset the monument and to obtain the DNR final report form.
- 18) **Gas Main, Transmission line, and Service Lateral:**
Before removals over underground gas facilities or before excavation or new facility construction, which are within the clearances of gas infrastructure as specified in Section 1-07.17(2)D, the Contractor shall contact PSE at 1-888-Call-PSE (1-888-225-5773) at least three (3) Working Days in advance of removal or excavation, or as otherwise indicated in the Contract, in permit(s), or by the agency having jurisdiction.
- 19) **Salvage; Brick, Cobblestone, and Granite Curb within Seattle:**
When brick, cobblestone, or granite curb is to be salvaged, the Contractor shall coordinate the loading operations with the SDOT Pavement Supervisor by giving at least 2 Working Day advance notice of the impending removal operations. Where removal takes place south of Denny Way, the Contractor shall call 206-386-1223. Where removal takes place north of Denny Way, the Contractor shall call 206-684-4660.
- 20) **Replacement Casting and Covers:**
For Seattle City Light (SCL) replacement of casting and covers pick-up or delivery coordination and notification of adjustment the Contractor shall call the SCL utility castings electrical reviewer at phone number (206)-684-4911 at least 10 Working Days in advance of the scheduled work.

For Seattle Public Utilities (SPU) Sewer and Drainage replacement of casting and covers pick-up or delivery coordination and notification of adjustment the Contractor shall call the SPU Controls Structures Asset Manager at phone number (206)-615-1442 at least 10 Working Days in advance of the scheduled work.

For Seattle Public Utilities (SPU) Water replacement of casting and covers pick-up or delivery coordination and notification of adjustment the Contractor shall call the SPU Field Crew Scheduling at phone number (206)-386-1835 at least 10 Working Days in advance of the scheduled work.

For Puget Sound Energy (PSE) replacement of casting and covers pick-up or delivery coordination and notification of adjustment the Contractor shall call PSE utility castings at phone number 425-457-5777 or 1-888-321-7779 at least 5 Working Days in advance of the scheduled work.

For all other replacement of casting and covers pick-up or delivery coordination and notification of adjustment the Contractor shall call or as indicated in the Contract, as otherwise indicated in permit(s), or the agency having jurisdiction in advance of the scheduled work.
- 21) **For Coordination Contacts Not Specifically Specified Above:**
The Contractor shall notify the service or franchise as indicated in the Contract, as otherwise indicated in permit(s), or the agency having jurisdiction.

1-07.29 RESERVED**1-07.30 DISCOVERIES OF CONTAMINATED MATERIAL(S), DANGEROUS WASTE(S) AND TSCA WASTE(S)****1-07.30(1) GENERAL**

Section 1-07.30 addresses Work related to responding to potential Contaminated Material(s), potential Dangerous Waste(s), and potential TSCA Waste(s) encountered or generated during construction or in connection with the Contract or Project Site but not otherwise identified in Contract-related documents.

1-07.30(2) PRESENT SITE CHARACTERIZATION

Contract-related documents may identify Contaminated Material(s), Dangerous Waste(s), or TSCA Waste(s) that the Owner has documented on the Project Site. The Owner may not have confirmed the presence or absence of contaminants in all areas of the Project Site. Therefore, the potential exists for encountering Contaminated Material(s), Dangerous Waste(s), or TSCA Waste(s) at the Project Site.

1-07.30(3) DISCOVERIES

During the performance of the Work, the Contractor shall respond to each discovery of potential Contaminated Material(s), potential Dangerous Waste(s), or potential TSCA Waste(s) on the Project Site using due diligence.

Potential Contaminated Material(s), potential Dangerous Waste(s), and potential TSCA Waste(s) at a Project Site may include soils or debris containing petroleum, metals or other contaminants, and vector wastes (street, storm drain and sewer cleanings). Indicators of the presence of Contaminated Material(s), Dangerous Waste(s), or TSCA Waste(s) may include, but are not limited to, the presence of:

1. Visibly stained and/or discolored soil and other areas presumed to contain petroleum, oil, and lubricants.
2. Suspect areas based on historical use or the presence of an aboveground or underground feature such as drums or other similar containers, a tank or conveyance piping or dry wells under drains in floor slabs or in maintenance holes and conveyance piping with visible staining.
3. Other areas based on staining and odor, or field screening instrument readings.
4. Exposed or buried debris.
5. Suspect building materials based on age, appearance, or historical use.

Upon discovery by Contractor or any other entity of potential Contaminated Material(s), potential Dangerous Waste(s), or potential TSCA Waste(s) not otherwise identified in Contract-related documents the Contractor shall:

- 1) Immediately suspend work activities only in the vicinity of the area of concern.
- 2) Immediately notify the Engineer of the discovery.
- 3) Secure the area of concern as needed to protect the general public and other personnel from entering the area of concern.
- 4) If authorized by the Engineer, secure all potential Contaminated Material(s), potential Dangerous Waste(s), and potential TSCA Waste(s) in a manner that prevents their release to the environment, to the extent the Contractor can do so in compliance with all applicable law.

Work in the area of concern shall not resume until the Engineer releases the Contractor to resume work. This release shall not relieve the Contractor from the requirements to maintain a safe workplace.

If potential or confirmed Contaminated Material(s), Dangerous Waste(s), or TSCA Waste(s) not otherwise identified in Contract-related documents are generated or encountered, the Contractor shall immediately submit to the Engineer both oral and written notice of all available information regarding the materials and waste. The Contractor shall not take further action with respect to the characterization, disposal or recycling of the materials unless authorized to do so by the Engineer in writing.

If the Engineer subsequently informs the Contractor in writing to proceed regarding the materials or waste, the Contractor shall arrange for and implement the proper and legal handling, storage, transport and/or disposal of the materials or waste in compliance with the Contract and any communications from the Engineer.

The Contractor shall comply with applicable regulations and law at all times using trained and qualified personnel.

1-07.30(4) TESTING

Testing will be performed by the Owner or as specified in writing by the Engineer prior to testing.

The Contractor shall provide reasonable assistance to the Engineer as may be specified by the Engineer. Such assistance may include but is not limited to collecting samples at the direction of the Engineer. Any Work performed by the Contractor shall be done in a manner consistent with applicable law which may include but is not limited to:

1. Code of Federal Regulations: 29 CFR 1910 Occupational Safety and Health Standards.
2. Washington Administrative Code: WAC 296-155 Safety Standards for Construction Work and WAC 296-800 Safety and Health Core Rules.

The Owner will provide the Contractor one copy of all constituent test reports conducted on materials discovered at the Project Site.

1-07.30(5) PAYMENT

No separate measurement and payment will be made for work required under this section prior to the notification to the Engineer of a discovery, and following the Engineer's order to resume Work. All costs in connection with suspended work activities and work directed by the Engineer shall be in accordance with Section 1-04.4. Work not directed by the Engineer will not be measured for payment except to the extent necessary to meet the obligations required in Sections 1-07.30(3) and (4).

SECTION 1-08 PROSECUTION AND PROGRESS**1-08.1 PRELIMINARY AND ON-GOING MATTERS****1-08.1(1) COPIES OF CONTRACT**

The Engineer will issue to the Contractor, without charge, the following:

- | | | |
|----|--|-------|
| 1. | Full size Drawings (22-inch x 34-inch) | 1 Set |
| 2. | Reduced Drawings (11-inch x 17-inch) | 1 Set |
| 3. | Project Manual | 1 Set |

1-08.1(2)A PRECONSTRUCTION CONFERENCE

After the Contract has been executed, but before the Contractor begins Work, a preconstruction conference will be held for the Contractor, the Engineer and such other interested parties as may be invited.

The purpose of the preconstruction conference will be:

1. To review the preliminary critical path schedule indicating major work activities including the order and duration of work activities, milestones and time frames required in the Contract, and the critical path;
2. To establish a working understanding among the various parties affected by the Work;
3. To establish and review procedures for progress estimates and cut-off dates, notifications, approvals, reviews, submittal delivery methods, etc.;
4. To establish normal working hours for the Work;
5. To review safety standards, traffic control, and maintaining cleanliness;
6. To review the Construction Stormwater Pollution Prevention Submittal requirements and Leads (Sections 1-05.13, 1-07.5, 1-07.15 and 8-01) and related permits, as applicable;
7. To review Material sources as may be applicable; and
8. To discuss such other related items as may be pertinent to the Work.

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

- 1) A breakdown of all lump sum Bid items;
- 2) A list of all portions of the Work to be subcontracted and the name of the proposed Subcontractors;
- 3) An initial Submittal Control Document (see Section 1-05.3);
- 4) A list of waste, recycle, and disposal sites, as applicable (see Section 1-07.3);
- 5) Preliminary critical path schedule and look ahead schedule (see Section 1-08.3); and
- 6) Signed transfer of NPDES form (see Section 1-07.15) as applicable.

1-08.1(2)B PREOPERATIONAL CONFERENCES

The Contractor shall also meet with the Engineer for preoperational conferences as required prior to beginning any new phase of work to more thoroughly establish effective working understandings when more detail is required than was provided at the preconstruction conference. In addition to representatives of the City, attendees will include each subcontractor, supplier, or other entity, or their representative concerned with current operations.

1-08.1(2)C WEEKLY PROGRESS MEETINGS

Weekly progress meetings will be held at a mutually agreed upon site, at regular weekly intervals or as otherwise mutually agreed. In addition to representatives of the City, attendees will include each Subcontractor, Supplier, or other entity, or their representative concerned with current progress or involved in planning, coordination or performance of future activities. These meeting shall be used to coordinate work and review progress. The project CPM schedule shall be reviewed in accordance with section 1-08.3.

1-08.1(3) SUBCONTRACTING

Work done by the Contractor's own organization shall account for at least 30 percent of the Awarded Contract Price. The Contract may specifically designate any Work that may be excluded from the calculation of the 30 percent of the Awarded Contract Price. If it does, then the Contractor shall subtract the cost of any excluded Work from the Awarded Contract Price before computing this percentage.

Work shall not be subcontracted, regardless of tier, without written consent of the Engineer. A request to subcontract shall be made on the "Subcontractor Approval Application Form" provided by the Engineer. If the Owner requests, the Contractor shall provide documentation that the Subcontractor meets the supplemental bidder responsibility criteria. Each subcontract shall contain a provision that requires the Subcontractor to comply with Chapter 39.12 RCW and furnish to the Contractor all certificates, statements, and submittals that the Contractor is required by the Contract to furnish to the Owner. The Contractor shall be responsible for verifying that the Subcontractor meets the Responsible Bidder requirements of Sections 1-02.1 and 1-02.2.

Along with the request to subcontract, the Contractor shall submit the names of any contracting firms a Subcontractor proposes to use of any tier. Collectively, these second and lower tier Subcontractors shall not do an amount of work that

exceeds 25 percent of the total amount subcontracted to the first-tier Subcontractor. When a Subcontractor is responsible for construction of a specific Structure or Structures, the following Work may be performed by second- and lower-tier Subcontractors without being subject to the 25 percent limitation:

1. Furnishing and driving of piling; and
2. Furnishing and installing concrete reinforcing and post-tensioning steel.

Except for the 25 percent limit, second- and lower-tier Subcontractors shall meet the same requirements as first-tier Subcontractors.

Consent to subcontract will not be given unless the Engineer is satisfied with the proposed Subcontractor's prior performance, equipment, experience, and ability to perform the Work. Approval to subcontract shall not:

- 1) Relieve the Contractor of any responsibility to carry out the Contract;
- 2) Relieve the Contractor of any obligation or liability under the Contract and the Contractor's bond;
- 3) Create any Contract between the Owner and the Subcontractor; or
- 4) Convey to the Subcontractor any right against the Owner.

The Owner will not consider as subcontracting:

- (1) The purchase of sand, gravel, crushed stone, crushed slag, batch concrete aggregates, ready mixed concrete, off-site fabricated structural steel, other off-site fabricated items, and any other materials supplied by established and recognized commercial plants;
- (2) Delivery of any of the materials identified in item (1) immediately above to the Project Site in any vehicle owned or operated by the Materialperson of such material or by a recognized independent or commercial hauling company. Such purchase shall be considered as being purchased from Materialpersons.

The Washington State Department of Labor and Industries may determine that Chapter 39.12 RCW applies to the employees of any Materialperson identified in items (1) or (2) immediately above in accordance with Chapter 296-127 WAC. If this should occur, the provisions of Section 1-07.9, as modified or supplemented, shall apply.

When a portion of the Work that has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the Engineer, the Subcontractor shall be removed and replaced immediately upon the Engineer's written order, and shall not again be employed on the Work unless the Contractor makes protest and the Contractor's protest is upheld by the Owner.

If the Engineer determines that any Subcontractor is performing any services in an unsatisfactory manner or is not completing the Work in accordance with the requirements of the Contract or is otherwise undesirable or unacceptable, the Engineer will so advise the Contractor by written notice. The Contractor shall then take immediate steps to terminate such Subcontractor. Further subcontracting by Subcontractors will be subject to the same Owner's rights and Subcontractors' obligations. The Contractor and each of its Subcontractors shall ensure that such Owner's right is included in each subcontract and sub-subcontract for any portion of the Work.

The Contractor's cost records pertaining to any Subcontracting of this Contract shall be open to inspection, subject to retainage periods, and the other requirements of Section 1-09.12.

The Contractor shall report on Subcontractors as required in Section 1-07.11(2)A.

1-08.1(4) HOURS OF WORK

The normal hours of Work shall be between 6:00 AM and 7:00 PM on any Working Day and shall consist of 8 hours, exclusive of a lunch period of not more than one hour. The normal work week shall not exceed 40 hours of Work. The normal hours of Work shall be established at the preconstruction conference or prior to the Contractor commencing the Work and shall not be changed or extended without approval of the Engineer.

Permission to work other than the normal daily hours, normal work week, or Working Days may be given subject to certain conditions set forth by the Engineer with sole discretion.

Permission to work outside normal hours of Work may be withdrawn at any time. The Contractor shall have no claim for damages or delay should such permission be withdrawn.

Any request to perform Work outside of normal hours of Work or on Non-Working Days shall be submitted to the Engineer no later than noon on the Working Day prior to the Day that the Contractor is requesting permission to work.

1-08.1(5) REIMBURSEMENT FOR OVERTIME WORK OF EMPLOYEES OF OWNER

If the Contractor requests permission to work on a Saturday, Sunday or Holiday, or in excess of the established normal hours of Work described in Section 1-08.1(4) and the Engineer approves, then such work shall be considered as overtime work. On all such overtime work, the Contractor shall reimburse the Owner for each of the Owner's employees required to work overtime hours to support Contractor requested overtime on any project-related construction activity. The number of Owner employees, and the duration of their participation in supporting the Contractor's overtime Work is at the sole discretion of the Engineer.

The Contractor shall reimburse the Owner according to a table of overtime charges contained in the Project Manual. If no table of overtime charges is included in the Project Manual, the Contractor shall reimburse the Owner one hundred dollars per hour (\$100.00/hr) for each Owner employee supporting the Contractor's overtime Work.

The Contractor hereby authorizes the Engineer to deduct the reimbursement required in the paragraph immediately above from any amount that might then be or thereafter become due or payable by the Owner to the Contractor under or by virtue of the Contract until such reimbursement has been recouped by the Owner.

1-08.2 ASSIGNMENT

The performance of the Work or any part of it shall not be assigned without written consent of the Owner. Consent will not be given to a proposed assignment that would relieve the Contractor or the Contractor's Surety of their responsibilities under the Contract.

The Contractor may assign moneys due or to become due to the Contractor under the Contract. This assignment will be recognized by the Owner, if given notarized written notice, to the extent permitted by law. Assignment of monies shall be subject to all set-offs, withholdings, and deductions provided by law and under the Contract.

1-08.3 CRITICAL PATH SCHEDULE AND SCHEDULE CONSTRAINTS

1-08.3(1) CRITICAL PATH SCHEDULE

1-08.3(1)A GENERAL REQUIREMENTS

The scheduling of the Work shall be the responsibility of the Contractor. The construction of this project will be planned and tracked by use of a conventional Critical Path Method (CPM) schedule.

The Engineer's review and acceptance of any critical path schedule shall not transfer any of the Contractor's responsibilities to the Owner or to the Engineer. Acceptance implies only that the Engineer has determined that the Critical Path Schedule submittal with any noted exceptions is within reasonable conformity to the requirements of the Contract. Acceptance of any schedule shall not relieve the Contractor of its responsibility to complete the work within the required Contract Time.

All schedules shall meet these general requirements.

The "critical path" is the series of sequentially-linked activities in a project schedule that will take the longest total amount of time to complete. Therefore, at any point in time, the critical path will be the path with the least amount of total float. The critical path does not have to follow the same logic path from start to finish and does not have to have zero total float. A critical task is a discrete work activity within a critical path. "Total Float" is the number of days that a scheduled activity can be delayed without affecting a given intermediate milestone or Physical Completion Date. A milestone is a zero-duration task marking the completion of a significant body of work or important date/event associated with the Contract.

The baseline CPM Schedule and each Critical Path Schedule update shall conform to the following guidelines:

1. Schedules shall be prepared, viewed, and printed utilizing standard Gantt-chart format.
2. Show all activities necessary to complete the Work.
3. Each task shall have a descriptor sufficiently detailed to understand the scope of work encompassed by that task. Overly-broad descriptors (e.g. "grading", "electrical", "plumbing", etc.) may be rejected by the Engineer, especially when in conjunction with long durations.
4. Activities shall be assigned durations consistent with the activity's scope of work, assuming that work will be done continuously over the entire task duration. Float time shall not be represented as a part of the task duration. Excluding the Preliminary CPM Schedule, the maximum duration for any one activity shall be ten (10) Working Days unless otherwise accepted by the Engineer.
5. Sequential work activities shall be linked logically by precedent/successor activities.
6. Display the Critical Path as a red-colored sequence within the project schedule. Multiple parallel critical paths will not be allowed unless the Contractor can demonstrate that each of the parallel paths has minimal total float time.
7. Comply with all order of Work requirements included in the Contract.
8. Show durations in Working Days.
9. Show Contract milestones including the following:
 - a. Notice to Proceed Date,
 - b. Substantial Completion Date,
 - c. Physical Completion Date,
 - d. Any milestones defined in the Special Provisions of this Contract,
 - e. Other milestones at the discretion of the Contractor
10. Show required submittals for significant activities. Establish discrete work activities for provision and review of submittals, ensuring durations conform to the time allowed by the Contract.
11. Identify special labor or equipment needs that may constrain or limit the Contractor's ability to perform project tasks simultaneously. These may be shown as "Resources" within the CPM schedule, or described separately in narrative format.
12. Show procurement, manufacture and delivery activities for significant material items of Work that affect the schedule.

13. Show significant Owner activities and/or delivery of Owner-supplied materials that may impact the schedule.
14. Show significant elements of the Construction Stormwater and Pollution Prevention Plans. These elements may include but are not limited to the installation and removal of erosion/sedimentation controls, and stormwater control.
15. Include project close-out items such as punch-list items, provision of O&M manuals and as-built drawings.

Unless otherwise specified in the Contract, the Contractor shall allow the Engineer a reasonable amount of time to perform his activities. Reasonable will be defined as "customary or normal" for the type of work involved.

Float available in the CPM Schedule, at any time, shall not be considered for the exclusive use of either the Contractor or the Engineer. However, any float used by the Owner that is later needed by the Contractor and results in delay to the critical path will be considered an excusable non-compensable delay.

If the Engineer deems that the CPM Schedule is not within reasonable conformity to these specifications, it will be returned to the Contractor for correction and re-submittal.

The Contractor, or its Subcontractor(s), shall not deviate from the projected start and completion times for major phase(s) of the Work shown on the accepted CPM Schedule without providing at least fourteen (14) Days advance notice to the Engineer. Failure to notify the Engineer of a deviation from projected start and completion times for a major phase of the Work shown on the schedule may impact costs to the Owner, including the cost of additional community outreach to communicate changes in schedule to the public. Resulting costs due to this "failure to notify" shall be the responsibility of the Contractor. The Owner will deduct these costs from any payment due or to become due to the Contractor.

1-08.3(1)B SCHEDULE TYPES

1-08.3(1)B1 PRELIMINARY CPM SCHEDULE

The Contractor shall prepare and submit a preliminary critical path schedule at the preconstruction conference. The preliminary schedule shall show the first 30 Days of Work in reasonable conformity to these Specifications. The remaining schedule shall show the critical path schedule using broad Work activities, and major milestones and durations for the purpose of review and discussion at the preconstruction conference.

1-08.3(1)B2 BASELINE CPM SCHEDULE

The Contractor shall submit for Engineer's review and acceptance a baseline CPM Schedule no later than seven (7) days after receipt of the Notice to Proceed. The baseline schedule will not be accepted unless it satisfies Section 1-08.3(1)A General Requirements.

Within seven (7) days of the Engineer receiving the submittal, the Engineer and the Contractor shall meet for joint review, correction, and adjustment of the initial baseline CPM schedule. Within seven (7) days, the baseline schedule shall be resubmitted to the Engineer showing the agreed upon adjustments. Adjusted baseline CPM schedules submitted by the Contractor will be reviewed by the Engineer and returned to the Contractor within seven (7) Days of the Engineer's receiving the submittal. If necessary, the joint review and adjusted schedule submittal process shall be repeated. However, the schedule shall be finalized within 30 Days after Notice to Proceed.

1-08.3(1)B3 CPM SCHEDULE UPDATE

The Contractor shall submit monthly Critical Path Schedule updates and whenever changes occur that have potential to delay substantial or physical completion by 5 or more working days. When required, a written narrative describing the project schedule status, the critical path and any revisions to the schedule shall be included with the updates.

1. At the discretion of the Engineer, progress meetings may be held monthly for the purpose of updating the critical path schedule. Progress will be reviewed to verify actual start and finish dates, remaining duration and percent complete of uncompleted activities, and any proposed revisions to the schedule. It is the Contractor's responsibility to provide the Engineer with the status of activities at this progress meeting and prepare schedule updates based on this information once it has been verified and agreed upon. If the work is in accordance with the last accepted critical path schedule, the Engineer may waive the monthly update or the final as-built CPM schedule.
2. The updated critical path schedule shall contain the agreed upon revisions or be resubmitted.

The Contractor shall submit a supplemental Critical Path Schedule update within seven (7) Days of a request by the Engineer and of Substantial Completion. The CPM Schedule updates shall conform to the following additional requirements:

- 1) Schedule updates shall be presented in a "Tracking Gantt" format, showing two sets of Gantt-style progress bars consisting of 1) the latest approved Baseline CPM versus 2) a combination of the actual start/finish progress of completed tasks and projected start/finish dates of uncompleted tasks.
- 2) Include columns showing actual or projected start and finish dates of all activities. Identify changes to activity precedents, successors, and/or constraints that have altered the critical path.
- 3) Highlight any new activities or additional activities resulting from the restructuring/splitting of existing baseline activity(ies).
- 4) Identify the current critical path, which could vary from the baseline critical path due to actual Work progress, additional work, or changed conditions.

Unresolved issues or disputes with asserted time effects may be reflected in a schedule update by comparing the Baseline critical path to the revised critical path shown in an updated schedule. If Work cannot be completed within the Contract Time, the updated schedule shall reflect the earliest completion date practicable, and a narrative shall be provided by the Contractor addressing the reason(s) behind the delay. Acceptance of late completion schedules will be at the discretion of the Engineer and shall not relieve the Contractor from Liquidated Damages.

1-08.3(1)B4 LOOK-AHEAD SCHEDULE

At each weekly progress meetings, the Contractor shall submit a look-ahead schedule showing the Contractor's, and all subcontractors' proposed Work activities and any Owner activities or supplied Materials for the next 3 weeks. Include the description, duration and sequence of Work, and highlight any deviations between planned and regular hours of Work. The 3-week look-ahead may be reduced to a 2-week look-ahead with the approval of the Engineer. Unless otherwise specified in the Contract, the Contractor shall notify the Engineer at least 2 Working Days in advance of changing Work as shown in the look-ahead schedule; an updated look-ahead schedule shall be submitted with the notification

1-08.3(1)C SUBMITTALS

The Contractor shall submit one (1) copy of the CPM schedule (in Gantt chart format, with columns displayed to show predecessors and successors of each activity), and any narrative; and one (1) full electronic copy in selected CPM software format. Unless approved otherwise by the Engineer, the CPM Schedule shall be printed on 24" x 36" paper or larger. The CPM Schedule and any narrative shall also be submitted in PDF format.

The Gantt chart format is a standard method of presenting schedule information. The following standard requirements apply:

1. The schedule shall include a horizontal time scale consistent with the project calendar.
2. Each activity/task/milestone shall be listed in order of start date in a tabular grid to the left of the time scale. The tabular grid shall include the task number, description, start date, finish date, predecessors, successors, and float. Baseline schedules shall show the baseline-planned start and finish dates. Update schedules shall show the actual/projected start and finish dates.
3. Each activity shall be provided with a corresponding task bar in the horizontal time scale, with a plotted length conforming to its duration and dates.
4. Linked activities shall be indicated by logic arrows in the timescale portion of the Gantt chart, as needed to clearly show the sequence and interdependence of all activities required for complete performance of all items of Work under the Contract.
5. Activities on the critical path shall be highlighted using red task bars.

The electronic copy of the Critical Path Schedule shall be compatible with Microsoft Project or other Engineer approved software. The Contractor shall submit a functional and complete CPM schedule electronically via email, on compact disk (CD), or other medium accepted by the Engineer.

1-08.3(1)D EARLY COMPLETION

The Engineer allocates resources to a Contract based on the Contract Time. The Engineer will review and accept a Critical Path Schedule indicating an early Physical Completion Date but cannot guarantee Owner resources will be available to meet the accelerated schedule. No additional compensation or time will be allowed if the Contractor is not able to meet its accelerated schedule due to the unavailability of Owner resources or for other reasons beyond the Engineer's control.

1-08.3(1)E PAYMENT

Compensation for the cost necessary to complete the Work described in this section is considered incidental to and included in all Bid items of Work. No separate payment will be made for the work required in this section.

1-08.3(2) SCHEDULE CONSTRAINTS

The Contractor's CPM schedule shall reflect constraints imposed by applicable laws and regulations, and those specified in the Contract. Constraints include but are not limited to the following:

1. Submittal requirements and review durations (see Section 1-05.3)
2. Traffic Control restrictions (see Section 1-10.2(5))
3. Environmental restrictions (see Sections 1-07.5, 1-07.15 and permits)
4. Safety restrictions (see regulations and permits)
5. Holiday Construction Moratorium (see Section 1-10.2(5)C)

1-08.3(3) RESERVED

1-08.3(4) RESERVED

1-08.4 NOTICE TO PROCEED AND PROSECUTION OF THE WORK

Upon Execution of the Contract, the Contractor may proceed on submittals and procurement of Materials critical to project completion within Contract Time. The Contractor shall bear all risks for any Work begun prior to the Contract Execution

Date. The Contractor shall not commence any other Work until the Notice to Proceed has been given by the Engineer. The Engineer may give a limited notice to proceed and authorize only a portion of the Work to commence. Notice to Proceed will be given after the Contract has been Executed and the Payment and Performance Bond and evidence of insurance have been approved and filed by the Owner.

The Contractor shall bear all risks for any Work begun prior to the Notice to Proceed except for submittals and procurement after execution of the Contract. Contract time shall begin on the Notice to Proceed Date.

The Contractor shall diligently pursue the Work to the Physical Completion Date within the time specified in the Contract. The Contractor shall not voluntarily shut down or slow Work operations without requesting and obtaining prior approval of the Engineer. Such approval shall not relieve the Contractor from the contractual obligation to complete the Work within the Contract Time.

1-08.5 TIME FOR COMPLETION

The Work shall be physically complete within the time specified in the Contract or as changed by the Engineer.

Unless the Contract specifies otherwise, the Contract Time will be stated in "Working Days", shall begin on the Notice to Proceed Date, and shall end on the Physical Completion Date.

Each successive Working Day, beginning with the Notice to Proceed Date and ending with the Physical Completion Date, shall be charged to the Contract Time as it occurs except a Day or part of a Day that is designated a Non-Working Day or an Engineer determined Unworkable Day.

The Engineer will furnish Contractor with a weekly report showing:

1. The number of Working Days charged against the Contract Time for the preceding week;
2. The Contract Time in Working Days;
3. The number of Working Days remaining in the Contract Time;
4. The revised Physical Completion Date as applicable;
5. The number of Non-Working Days; and
6. Any whole Days during the immediately preceding week that the Engineer declared to be an Unworkable Day.

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.

The Contractor will be allowed ten (10) Days after the date of each report in which to file a written notice of protest of an alleged discrepancy in the Contract Time as reported. Otherwise, the report will be deemed to have been accepted by the Contractor as correct.

Unworkable Days may be granted for unsuitable weather and such other conditions beyond the control of the Contractor that prevent satisfactory and timely performance of the Work; see Section 1-08.6.

1-08.6 SUSPENSION OF WORK

The Contractor shall immediately suspend the Work or resume suspended Work only when ordered or authorized in writing to do so by the Engineer. The Engineer may suspend all or part of the Work and for such periods of time as the Engineer may deem proper if:

1. Unsuitable weather and such other conditions beyond the control of the Contractor occur that prevent satisfactory and timely performance of the Work; or
2. The Contractor does not comply with the Contract or the Engineer's orders.

When ordered by the Engineer to suspend or resume Work, the Contractor shall do so immediately.

If the Work is suspended for reason (1) above, the period of Work stoppage will be counted as Unworkable Days. The Engineer will set the number of Unworkable Days (or parts of Days) by deciding how long the suspension delayed the entire project.

In order to be granted an Unworkable Day, the Contractor shall have been working vigorously on the affected work and this work shall be on the critical path as shown on the Contractor's latest CPM schedule. The Contractor may be granted one Unworkable Day when weather or other conditions beyond the control of the Contractor prevent work for a period greater than 1/2 of a Working Day.

If the Work is suspended for reason (2) above, the period of Work stoppage will be counted as Working Days. The lost Work time, however, shall not relieve the Contractor from any Contract responsibility.

If the Contractor believes that the performance of the Work is suspended, delayed, or interrupted for an unreasonable period of time and such suspension, delay, or interruption is the responsibility of the Owner, the Contractor shall immediately submit a written notice of dispute to the Engineer as provided in Section 1-04.5. No adjustment shall be allowed for any costs incurred more than 10-Calendar Days before the date the Engineer receives the Contractor's written notice of protest.

The Engineer will determine if an equitable adjustment in cost or time is due as provided in this Section. The equitable adjustment for increase in costs, if due, shall be subject to the limitations provided in Section 1-09.4, provided that no profit of any kind will be allowed on any increase in cost necessarily caused by the suspension, delay, or interruption.

Request for extensions of time will be evaluated in accordance with Section 1-08.8.

The Engineer's determination as to whether an adjustment should be made will be final as provided in Section 1-05.1.

No claim by the Contractor under this clause shall be allowed unless the Contractor has followed the procedures defined in Section 1-04.5.

1-08.7 MAINTENANCE DURING SUSPENSION

In preparing for or during suspensions of the Work (as described in Section 1-08.6), the Contractor shall do whatever is necessary to prevent damage to or deterioration of the Work. The Contractor's safety and maintenance responsibilities shall remain unchanged except for those assumed by the Engineer under the conditions set forth in this Section.

At no additional expense to the Owner, the Contractor shall maintain a safe, smooth, and unobstructed roadway, sidewalks, paths, temporary roads, or detours for public use through the construction area during suspension of the Work as required by Section 1-07.23.

If the Engineer determines that the Contractor failed to pursue the Work vigorously, diligently, and without unauthorized interruption before the suspension, or failed to comply with the Contract or the Engineer's orders, the Contractor shall maintain the temporary roadway, detour, sidewalks, or paths in use during suspension. In this case, the Contractor shall bear the maintenance costs. If the Contractor fails to maintain the temporary roadway, detour, sidewalks, or paths, the Owner will do the maintenance work and deduct all resulting costs from payments due to the Contractor pursuant to Section 1-05.8.

If the Engineer determines that the Contractor has pursued the Work vigorously, diligently, and without unauthorized interruption before the suspension, the Owner will do the routine maintenance work and bear its cost. The maintenance performed by the Owner will include only routine maintenance of:

1. The Traveled Way and shoulders, sidewalks, paths, and detour surface;
2. Roadway drainage along and under the traveled roadway or detour; and
3. All barricades, signs, and lights needed for directing traffic through the temporary roadway or detour in the construction area.

The Contractor shall protect, maintain and bear the costs of completing all other portions of the Work in areas not used for traffic.

After a suspension, during which the Owner has done the routine maintenance, the Contractor shall accept the traveled roadway or detour as is, when the Work resumes. The Contractor shall make no claim against the Owner for the condition of the roadway or detour.

After any suspension, the Contractor shall retain the responsibility for repairing or restoring the roadway, its slopes, and its drainage system to the requirements of the Contract.

1-08.8 TIME EXTENSIONS AND DELAYS - ENTITLEMENT AND COMPENSATION

1-08.8(1) GENERAL

The Engineer considers the Contract Time sufficient to complete the Work. For this reason the Engineer will not grant a time extension for any reason other than those listed in Section 1-08.8(3)A.

The Contract will be extended for a period equivalent to the actual time the Work is suspended or delayed for an excusable reason. Entitlement, length of time extension, and applicable compensation will be determined by the Engineer.

If the Work is suspended or delayed and the Contractor believes the reason for the suspension or delay is excusable or compensable, the Contractor shall submit to the Engineer a written notice requesting an adjustment in the Contract Time, in the costs, or both. To be considered, the request shall be submitted to the Engineer no later than ten (10) Days after the claimed suspension or delay occurs. The request shall state the reasons why the adjustment should be granted. Upon receipt, the Engineer will evaluate the Contractor's request and determine if the:

1. The portion of the Work that was delayed
 - a. Is on the critical path of the critical path schedule in effect at the time as specified in this Section below;
 - b. Has increased in cost, time, or both as a result of such suspension or delay;
2. Delay was caused by one or more conditions beyond the control of, and were not the fault of, the Contractor or any of the Contractor's Materialperson or Subcontractor at any approved tier
3. The suspension was not on an Unworkable Day;
4. Performance was not suspended or delayed by any other cause; and
5. Adjustment is provided for or specifically excluded, under any other term or condition of this Contract.

If the Engineer agrees that an adjustment is warranted considering all evaluation criteria stated in items 1 through 5 immediately above, the Engineer will make an adjustment in Contract Time, or in cost, or in both (excluding profit) and modify the Contract accordingly. No adjustment will be allowed for any cost that was incurred by the Contractor more than ten (10) Days prior to the date the Engineer received the Contractor's written notice requesting an adjustment. The reasons for and times of extensions shall be determined by the Engineer and such determination shall be final pursuant to Section 1-05.1. Any disagreement with the Engineer's determination shall be pursued in accordance with Section 1-04.5.

The Contractor's accepted critical path schedule in effect at the start of the claimed delay will be used to evaluate the extent of the delay and the claimed delay's impact on the Contract Time. The Contractor shall be responsible for showing on this critical path schedule that the change or event:

- 1) Had a specific impact on the critical path, and except in cases of concurrent delay, was the sole cause of such impact; and
- 2) Could not have been avoided by resequencing of the Work or other reasonable alternative.

Failure of the Contractor to efficiently utilize all available time after the Notice to Proceed Date will be considered in evaluating requests for extensions of time.

The granting of a time extension or granting payment of additional compensation or granting of both will be made by Change Order, except that time extensions and/or payment of additional compensation for suspensions of the Work on Days determined by the Engineer to have been Unworkable Days shall be in accordance with this Section 1-08.8.

1-08.8(2) NON-EXCUSABLE DELAYS

Non-excusable delays shall be those delays caused by factors within the Contractor's control that could have been foreseen or avoided had the Contractor exercised due care, prudence, foresight, or diligence and pursued the Work vigorously and without unauthorized interruption. Non-excusable delays will not entitle the Contractor to an extension of time and will not be compensable.

Non-excusable delays include, but are not limited to:

1. Delays caused by or resulting from the Contractor's own Subcontractors or Materialpersons;
2. The Contractor's lack of sufficient working capital;
3. The default of the Contractor;
4. The Contractor's act or failure to act;
5. The Contractor's failure to procure Materials or to provide labor or to perform the Work according to the Contract;
6. Changes, protests, increased quantities, or changed conditions that do not delay the completion of the Contract or prove to be an invalid or inappropriate time extension request;
7. Delays caused by Contractor submittal as provided in Section 1-05.3; and
8. Rejection of faulty or inappropriate equipment as provided in Section 1-05.9.

The Contract may be terminated for a non-excusable delay.

1-08.8(3) EXCUSABLE DELAYS

1-08.8(3)A GENERAL

1. Excusable delays shall be those delays caused by one or more factors beyond the control and without fault or negligence of the Contractor.
2. Excusable delays:
 - a. May be compensable; and
 - b. Will entitle the Contractor to an extension of time:
 - 1) If the activities that are subject to the delay are on the critical path of the accepted critical path schedule in effect at that time; and
 - 2) The Contractor has submitted a request for an extension of time within the prescribed time limits.
3. Excusable delays shall be limited to:
 - a. Acts of nature;
 - b. Acts of the public enemy;
 - c. Acts of a government in its sovereign capacity;
 - d. Acts or omissions or defaults of the Owner, or any of its officers and employees, including the Engineer, or of another Contractor employed by the Owner;
 - e. Unforeseeable conditions not the fault of the Contractor;
 - f. Fires or floods due to nature or other casualty for which the Contractor is not responsible;
 - g. Epidemics;
 - h. Quarantine restrictions;
 - i. Unusual transportation delays (freight embargoes);
 - j. Strikes or combined actions of labor;
 - k. Unusually severe weather as defined in the last paragraph 4. in this Specification Section, provided that:
 - 1) The Engineer has not already allowed it as an Unworkable Day under Section 1-08.5;
 - 2) The Contractor timely filed a written notice of protest (per Section 1-08.5) asserting that time the Engineer charged as a Working Day should have been allowed as an Unworkable Day or portion thereof; and
 - 3) The Engineer responded to the Contractor's written notice of protest of item k. 2) above with a written notice approving that time as an Unworkable Day or portion thereof;
 - l. Any other conditions for which the Contract permits time extensions including but not limited to:

- 1) Section 1-04.4 if a change increases the time to do any of the Work including unchanged Work;
 - 2) Section 1-04.5 if the increased time is part of a dispute that is found to be valid;
 - 3) If a dispute or claim also involves a delay in completing the Contract and the dispute or claim proves to be valid;
 - 4) Section 1-04.6 if increases in the quantities of any Bid item of Work exceed 25 percent and these increases caused a delay in completing the Contract;
 - 5) Section 1-04.7 if a changed condition is determined to exist that caused a delay in completing the Contract;
 - 6) Section 1-05.3 if the Engineer does not approve properly prepared and acceptable Shop Drawings within the specified time frame for review;
 - 7) Section 1-07.13 if the performance of the Work is delayed as a result of damage by others not party to the Contract;
 - 8) Section 1-07.17 if the removal or the relocation of any utility by forces other than the Contractor caused a delay;
 - 9) Section 1-07.24 if a delay results from the Owner not purchasing the Right of Way necessary for construction and the Project Manual does not make specific provisions regarding unpurchased Right of Way;
 - 10) Section 1-08.6 if the performance of the Work is suspended, delayed, or interrupted for an unreasonable time that proves to be the responsibility of the Engineer or Owner; or
- m. Exceptional causes not specifically identified in items a. through l., provided the request letter proves the Contractor had no control over the cause of the delay and could have done nothing to avoid or shorten it.

4. Unusually severe weather will be as determined by the Engineer. Minimum requirements for unusually severe weather are monthly average temperature, precipitation, or precipitation events outside of two standard deviations of the historical weather data of the past nine years. Weather meeting the minimum requirements for unusually severe weather will be subject to evaluation based on its effect on active work. If the Contractor elects not to perform the Work during periods of normal inclement weather that does not qualify as unusually severe weather, and the Engineer does not grant an Unworkable Day(s), the Contractor will not be entitled to an extension of time.

1-08.8(3)B COMPENSABLE DELAYS

Compensation will be provided for an increase in cost of performance of the Work (excluding profit) if the performance of all or any part of the Work is suspended or delayed for an unreasonable period of time by an act of the Engineer or the Owner in the administration of the Work and such act is not expressly or implicitly authorized by the Contract; or by failure of the Engineer or Owner to act within a time period specified in the Contract (or if no time is specified, within a reasonable time). However, no adjustment will be made under this Section for a suspension or delay if:

1. The performance would have been suspended or delayed by any other cause including the fault or negligence of the Contractor, or
2. Compensation is provided for or excluded under any other provision of the Contract (i.e. Concurrent Delays).

Compensable time extensions may be granted for reasons arising from the "CHANGES" or "CHANGED CONDITIONS (DIFFERING SITE CONDITIONS)" Contract provisions. However, a time extension granted under the "CHANGES" or "CHANGED CONDITIONS (DIFFERING SITE CONDITIONS)" Contract provisions shall not be considered a delay or suspension of the Work as defined in this Section. If the Contractor believes an excusable delay is compensable, the Contractor shall immediately submit a written request for adjustment as specified in Section 1-08.8(1). The Engineer will determine if an equitable adjustment in cost or time is due. The equitable adjustment for increase in costs, if due, shall be subject to the limitations provided in Section 1-09.4, provided that no profit of any kind will be allowed on any increase in cost necessarily caused by the suspension, delay, or interruption.

The Engineer's determination as to whether an adjustment should be made will be final unless the decision is disputed in accordance with the dispute resolution procedures specified in Section 1-04.5.

1-08.8(3)C NON-COMPENSABLE DELAYS

Non-compensable delays are delays to the completion of the Work arising from conditions beyond the control and without fault or negligence of the Contractor, the Engineer, or the Owner. Non-compensable delays include, but are not limited to:

1. Acts of nature;
2. Acts of the public enemy;
3. Fires;
4. Floods due to nature;
5. Epidemics and quarantine restrictions;
6. Unusual transportation delays (freight embargoes);
7. Strikes or combined actions of labor;
8. Unusually severe weather;
9. Delays of Subcontractor or Materialperson at any tier.

1-08.8(4) CONCURRENT DELAYS

Concurrent delays are those delays where progress on critical path activities is impeded over the same period of time due to causes attributable to both the Contractor, and Engineer or Owner. In the event of a concurrent delay, neither party shall be entitled to compensation from the other over the period of time that concurrency of delay exists.

1-08.8(5) COST FOR SPU CREWS DUE TO CONTRACTOR DELAYS

Except for excusable delays noted in Section 1-08.8(3), the Contractor shall reimburse SPU for work the Contractor has scheduled to be completed by SPU crews for water transfers and connections if the Contractor is not prepared to allow SPU to perform the work as scheduled. SPU shall be reimbursed by the Contractor for the costs to mobilize crews for the scheduled work and for the crew time lost on a time and materials basis.

1-08.9 LIQUIDATED DAMAGES

Time is of the essence to the Contract. Liquidated Damages have been agreed upon to provide compensation for damages resulting from failure to complete the Contract on time. Such obligation shall not be construed as a penalty.

The Contractor:

1. Shall pay Liquidated Damages for delay or for overruns in the Contract Time as set forth below; and
2. Authorizes the Engineer to deduct these damages from any money due or to become due to the Contractor.

For overruns in Contract Time occurring before the Substantial Completion Date and for overruns in Contract Time occurring before the Physical Completion Date, the Liquidated Damages amount is set forth in Section 4 of the Agreement Form.

Liquidated Damages will not be assessed for any day for which an extension of time is granted. No deduction or payment of such damages for delay will release the Contractor, in any degree, from further obligations and liabilities to complete the entire Contract.

1-08.10 TERMINATION OF CONTRACT**1-08.10(1) TERMINATION FOR DEFAULT**

The Owner may terminate the Contract upon the occurrence of any one or more of the following events:

1. If the Contractor fails to supply sufficient skilled workers or suitable Materials or equipment;
2. If the Contractor refuses or fails to prosecute the Work with such diligence as will ensure its physical completion within the Contract Time and any extension of time that may have been granted to the Contractor by Change Order or otherwise;
3. If the Contractor is adjudged bankrupt or insolvent, or makes a general assignment for the benefit of creditors, or if the Contractor or a third party files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or similar laws concerning the Contractor, or if a trustee or receiver is appointed for the Contractor or for any of the Contractor's property on account of the Contractor's insolvency, and the Contractor or its successor in interest does not provide the Engineer adequate assurance of future performance in accordance with the Contract within 15-Days of receipt by the Contractor or its successor in interest of a request for assurance from the Engineer;
4. If the Contractor disregards any law, ordinance, rule, code, regulation, order or similar requirement of any public entity having jurisdiction;
5. If the Contractor disregards the authority of the Engineer;
6. If the Contractor performs any portion of the Work in a way that deviates from the Contract requirements, and neglects or refuses to correct any rejected performance;
7. If the Contractor otherwise violates in any material way any material provision or requirement of the Contract; or
8. If the Contractor failed to disclose or submitted false or misleading information in the Supplemental Bidder Responsibility Criteria Form or attached documentation.

Once the Owner determines that sufficient cause exists to terminate the Contract, written notice will be given to the Contractor and its Surety declaring that the Contractor is in default on the Contract and that the Contractor is to cure the default within fifteen (15) days after the written notice is delivered. In case of an emergency such as potential damage to life or property, the response time to cure the default after the written notice may be shortened. If the cure does not take place to the satisfaction of the Engineer, the Engineer, by serving written notice to the Contractor and Surety, may either:

- 1) Transfer the performance of the Work from the Contractor to the Surety; or
- 2) Terminate the Contract and, at the Engineer's option, prosecute it to completion by Contract or by other means. Any extra costs or damages to the Owner shall be deducted from any money due or coming due to the Contractor or Surety under the Contract.

If the Owner elects to pursue one cure, it will not bar the Owner from pursuing other cures on the same or subsequent defaults.

Upon receipt of a written notice that the Work is being transferred to the Surety, the Surety shall enter upon the Project Site and take possession of all Materials, tools, and appliances for the purpose of completing the Work pursuant to the Contract and employ by contract or otherwise any person or persons satisfactory to the Engineer to finish the Work and provide the Materials without termination of the Contract. Such employment shall not relieve the Surety of its obligations under

the Contract and the Payment and Performance Bond. If there is a transfer to the Surety, payments on progress estimates covering the Work subsequent to the transfer shall be made to the extent permitted under law to the Surety or its agent without any right of the Contractor to make any claim against the Owner for such sums.

If the Contractor fails to cure any default within the time specified in the Owner's written notice and if the Owner terminates the Contract or provides such sufficiency of labor or Materials as is required to complete the Work, then the Contractor shall not be entitled to receive any further payment on the Work until the Work has been fully performed. The Contractor shall bear all extra expenses incurred by the Owner in completing the Work, including all increased costs for completing the Work, and all damages sustained, or that may be sustained, by the Owner by reason of such refusal, neglect, failure, or discontinuance of the Work by the Contractor. If Liquidated Damages are provided for in the Contract, the Contractor shall be liable for whatever amount of such damages accrues through the Substantial Completion Date. After all the Work encompassed by the Contract has been completed, the Engineer will calculate the total expenses and damages for the completed Work. If the total expenses and damages are less than any unpaid balance due the Contractor, the excess will be paid by the Owner to the Contractor. If the total expenses and damages exceed the unpaid balance, the Contractor and the Surety shall be jointly and severally liable to the Owner and shall pay the difference to the Owner on demand.

In exercising the Engineer's right to prosecute the Work to physical completion, the Engineer shall have the right to exercise sole discretion as to the manner, method, and reasonableness of the costs of completing the Work. In the event that the Owner takes Bids for remedial work or physical completion of the project, the Contractor shall not be eligible for the Award of such contract.

In the event the Contract is terminated, the termination of the Contract shall not affect any rights of the Owner against the Contractor, including any warranties or assurances. The rights and remedies of the Owner under the termination clause are in addition to any other rights and remedies provided by law or under this Contract. Any retention or payment of monies to the Contractor by the Owner will not release the Contractor from liability.

If a written notice of termination for default has been issued and it is later determined for any reason that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the written notice of termination had been issued pursuant to Termination for Public Convenience in Section 1-08.10(2). This result shall apply where the Contract is terminated for default because of failure to prosecute the Work, and where a Contractor's delay was found to be excusable under the provisions of Section 1-08.8.

1-08.10(2) TERMINATION FOR PUBLIC CONVENIENCE

The Owner may terminate the Contract in whole, or from time to time in part, whenever:

1. The Contractor is prevented from proceeding with the Work as a direct result of an Executive Order of the President with respect to the prosecution of war or in the interest of national defense; or an Executive Order of the President or Governor of the State with respect to the preservation of energy resources;
2. The Contractor is prevented from proceeding with the Work by reason of a preliminary, special, or permanent restraining order of a court of competent jurisdiction where the issuance of such restraining order is primarily caused by an act or omission of a person or agency other than the Contractor;
3. The Owner determines that such termination is in the best interest of public or the Owner; or
4. The Owner determines that such termination is mutually beneficial to the Owner and the Contractor.

1-08.10(3) PAYMENT FOR TERMINATION FOR PUBLIC CONVENIENCE

Whenever the Contract is terminated in accordance with Section 1-08.10(2), payment will be made for actual Work performed at Bid item prices for completed Bid items of the Work. An equitable adjustment for partially completed Bid items of Work and disposal of Materials will be made as provided in Section 1-09.5.

1-08.10(4) TERMINATION CLAIM BY CONTRACTOR

After receipt of a written notice of termination of Contract for public convenience, the Contractor shall submit to the Engineer a termination claim in sufficient detail to enable the Engineer to ascertain the basis and amount of the claim. The claim shall provide the minimum detailed information required by Section 1-04.5(3). The claim shall be submitted promptly but in no event later than sixty (60) Days after the effective date of termination. The Contractor shall pursue resolution of the claim through the established administrative channels of the Owner. The Contractor shall make its business and office records available to the extent necessary for the Engineer to verify the Contractor's claim and to determine the amount of entitlement per Section 1-09.12. Subject to the provisions of Section 1-05.1, the decision of the Engineer shall be final.

1-08.10(5) TERMINATION FOR DELAYS DUE TO LITIGATION

Pursuant to RCW 60.28.080, if the delay caused by litigation exceeds six months, the Contractor may then elect to terminate the Contract and receive payment in proportion to the amount of the Work completed plus the cost of the delay. Amounts retained and accumulated under RCW 60.28.011 shall be held for a period of sixty (60) Days following the election of the Contractor to terminate.

1-08.10(6) RESPONSIBILITY OF THE CONTRACTOR AND SURETY

Termination of the Contract or an Order of Debarment shall not relieve the:

1. Contractor of any responsibilities under the Contract for Work performed; or
2. Surety or Sureties of obligations under the Payment and Performance Bond, and Retainage Bond if applicable, for Work performed.

1-08.10(7) TERMINATION BEFORE COMPLETION

Pursuant to RCW 60.28.011(7), if after a substantial portion of the Work has been completed, an unreasonable delay will occur in the completion of the remaining portion of the Contract for any reason not the result of a breach thereof, the Owner may, if the Contractor agrees, delete from the Contract the remaining Work and accept as final the Improvement at the stage of completion then attained and make payment in proportion to the amount of the Work accomplished. In such case, whatever amount of the Contractor's compensation has been retained and accumulated pursuant to RCW 60.28.011(7) shall be held for the statutory period of sixty (60) Days following the establishment of the Completion Date. In the event that the Work shall have been terminated before Completion, the Owner may thereafter enter into a new contract with the same Contractor without an Advertisement for Bids or Bid for the performance of the remaining Work or Improvement for an amount equal to or less than the cost of the remaining Work under the original Contract.

1-08.10(8) DEBARMENT

The Owner may debar a Contractor pursuant to the provisions of SMC 20.70. The debarment provisions are specified in Contractor/Subcontractor Performance Evaluation Program located in the Appendix of the Project Manual.

SECTION 1-09 MEASUREMENT AND PAYMENT**1-09.1 MEASUREMENT OF QUANTITIES**

In measuring all acceptably completed Bid items of Work, the Engineer will:

1. Use United States standard measure.
2. Make all measurements as described in this Section, unless individual Specifications require otherwise.
3. Follow methods generally recognized as conforming to good engineering practice.
4. Conform to the usual practice of the Owner by carrying measurements and computations to the proper significant figure or fraction of units for each Bid item.
5. Measure horizontally or vertically (unless otherwise specified).

The terms listed below shall be defined as follows in all measurements under this Section:

- 1) **Lump Sum (when used as a Bid item of payment):** Complete payment for the work described for that item in the Contract.
- 2) **Gauge:**
 - a. **In the measurement of plates:** the U.S. Standard Gauge.
 - b. **In the measurement of galvanized sheets used to manufacture corrugated metal pipe, metal plate pipe Contracts and arches, and metal cribbing:** that specified in AASHTO M 36, M 167, M 196, M 197, or M 219.
 - c. **In the measurement of wire:** that specified in AASHTO M 32.
- 3) **Ton:** The short ton is equal to 2,000 pounds of avoirdupois weight. All Materials that are measured or proportioned by weight will be weighed according to the requirements of Section 1-09.2. If Material is shipped by rail, the car weight may be accepted provided only the actual weight of Material is paid for. However, car weights will not be acceptable for Material to be passed through mixing plants.
- 4) **Calculated:** When the unit of measurement is "Calculated", payment or deduction will be calculated per the applicable specification. Calculated (abbreviated "CALC") will be used as the Bid item unit of measurement in the Bid form. The extended Bid item amount in the Bid form will be either zero or an estimated amount for bidding purposes only.

For each basis of measurement listed below, the Engineer will use the method of measurement described. For Bid items or Materials measured on the basis of:

- (1) **Square Yard or Square Foot:** The measurement shall be a calculation from the neat dimensions shown on the Drawings or as altered by the Engineer. If there is an exception within the measured area where the item of Work is not performed (such as a drainage Structure within a measured sidewalk) and if the exception area is greater than 9 square feet, then the area of the exception will be subtracted from the payment area calculated from the neat dimensions.
- (2) **Linear Foot:** Pipe Contracts, guardrail, under drains, etc. shall be measured parallel to the Structure's base or foundation, unless the Drawings require otherwise.
- (3) **Weight:** Weighed as required in Section 1-09.2.
- (4) **Volume:**
 - a. **Excavation and Embankment:** Measured by the average-end-area method or by the finite element analysis method utilizing digital terrain modeling techniques. All or some computations may be based on ground elevations and other data derived photogrammetrically. The Engineer may correct for curvature.
 - b. **In Hauling Vehicle:** Measured at the point of delivery. Hauling vehicles may be of any size or type the Engineer approves provided that the body is of such shape that the actual contents may be readily and accurately determined. If the Engineer requires, the Contractor shall level loads at the delivery point to facilitate measurement.
 - c. **Mineral Aggregates:** Measured by the cubic yard compacted in place to the neat line dimensions indicated on the Drawings or Standard Plans.

Unit weight - volume conversion factors for measurements:

Bid items for which the Contract requires measurement by volume may, at the Contractor's request and with the Engineer's approval, or at the discretion of the Engineer, be converted to weight from volume measurements using a determination of density ("unit weight") factor. Bid items for which the Contract requires measurement by weight may, at the Contractor's request and with the Engineer's approval, or at the discretion of the Engineer, be converted to volume from weight measurements using a determination of density ("unit weight") factor.

The relationship between degree of compaction of aggregates or soils in a hauling unit, stockpile, or compacted in-place are unknown. The conversion for measurement will be based on bulk density ("unit weight") factor at location and condition of measurement; typically compacted in-place. The following test may be applicable:

- a) ASTM D6938 Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods.
- b) ASTM C29 / C29M Standard Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate.
- c) ASTM D698 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort

- d) ASTM D1557 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
- e) Other methods as approved by the Engineer.

When proposed by the Contractor, conversion factor testing shall be performed at the Contractor's expense by an Engineer approved independent materials laboratory retained by the Contractor; the Engineer reserves the right to verify testing and if testing results are in conflict, the Engineer's conversion factor(s) will govern. When directed by the Engineer all testing for conversion factor will be by the Engineer.

For each item listed below, the Engineer will use the method of measurement described:

- [1] **Structures:** Measured on the neat lines shown in the Drawings or as altered by the Engineer. When a complete structure or structural unit is specified as the unit of measurement, the unit shall include all fittings and accessories.
- [2] **Timber:** Measured by the thousand board feet (MBM) actually used in the Structure. Measurements will be based on the nominal width, thickness, and the extreme length of each piece.
- [3] **Standard Manufactured Items:** Fence, wire, plates, rolled shapes, pipe conduit, etc., when specified shall be measured by the manufacturer's identification of gage, unit weight, section dimension, etc. The Engineer will accept manufacturing tolerances set by each industry unless cited Specifications require more stringent tolerances.
- [4] **Portland Cement:** Measured by the pound, ton, or sack. A sack shall mean a sack weighing 94 pounds.
- [5] **Asphalt:** Measured by the gallon or ton. If measured by gallon, measurement will be made at 60°F (or will be corrected to the volume at 60°F in keeping with ASTM D 1250). If shipped by rail, truck, or transport, measurement will be by net certified scale weights or certified volumes (corrected for Material lost en route or not actually incorporated into the Work). The Engineer will use the volume-weight conversion table below to compute asphalt measurements:

**Conversion Factors
Average Weights and Volumes of Asphalt**

Grade	Gallons per Ton	Pounds per Gallons
Liquid Asphalt	@ 60°F	@ 60°F
70	253	7.90
250	249	8.03
800	245	8.16
3000	241	8.30
Paving Asphalt		
All PG Grades	235	8.51
Emulsified Asphalt		
All Grades	240	8.33

No measurement will be made for:

- {1} Work performed or Materials placed outside lines shown in the Drawings or set by the Engineer.
- {2} Materials wasted, used, or disposed of in a manner contrary to the Contract.
- {3} Rejected materials (including those rejected after placement if the rejection resulted from the Contractor's failure to comply with the Contract).
- {4} Hauling and disposing of rejected materials.
- {5} Material remaining on hand after the Work is completed, except as provided in Section 1-09.8.
- {6} Any other Work or material contrary to any Contract provision.

1-09.2 WEIGHING EQUIPMENT

1-09.2(1) GENERAL REQUIREMENTS FOR WEIGHING EQUIPMENT

Materials proportioned, or measured and paid for by weight shall be weighed on accurate, approved scales by competent, qualified personnel at locations satisfactory to the Engineer.

Scales for the weighing of natural, manufactured, or processed construction materials obtained from natural deposits, stockpiles, or bunkers which are required to be proportioned or measured and paid for by weight, shall be furnished, erected and maintained by the Contractor, or shall be certified, permanently installed commercial scales.

Each truck to be weighed shall bear a unique identification number. This number shall be legible and in plain view of the scale operator. Trucks used to haul Material being paid for by weight shall be weighed empty at least once daily or at such times as the Engineer directs. Duplicate weight tickets shall be prepared and accompany each truckload of Material delivered to the project. The duplicate weight tickets shall be submitted to the Engineer on the Day of delivery. The tickets shall be legible and contain the following information:

- 1. Preprinted ticket serial number,
- 2. Identification number of truck/truck trailer,
- 3. Date and hour of weighing,
- 4. Type of Material,

5. Weight of load including gross, tare and net weights. If the scale has a tare beam so the net weight can be read directly, only the net weight need be recorded on the ticket.
6. Weighman's identification,
7. Item number,
8. Contract number,
9. Unit of measure,
10. Legal gross weight in remarks section, and
11. Location of delivery (station or by street name).

The net weight of Material measured by the ton that is being placed in each truck shall be printed on the ticket by an automatic weighing device from a certified scale.

Scales shall:

- 1) Be accurate to within one-half of 1 percent throughout the range of use,
- 2) Not include spring balances,
- 3) Include beams, dials, or other reliable readout equipment,
- 4) Be arranged so that operators and Inspectors can safely and easily see the dials, beams, rods, and operating scale mechanisms,
- 5) Be built to prevent scale parts from binding, vibrating, or being displaced and to protect all working parts from falling material, wind, and weather, and
- 6) Be carefully maintained, with
 - a. Bunkers and platforms kept clear of accumulated materials that could cause errors.
 - b. Knife edges given extra care and protection.

At each batch and platform scale location, the Contractor shall keep 10 standard 50-pound weights for scale calibration and testing. If the Engineer has approved other calibration and testing equipment, the Contractor may substitute the approved other equipment for these weights.

1-09.2(2) SPECIFIC REQUIREMENTS FOR BATCHING SCALES

All Materials proportioned by weight shall be weighed on an accurate, approved scale by qualified operators employed by the Contractor. Scale locations require the Engineer's approval.

Each scale shall be designed to support a weighing hopper. The arrangement shall make it convenient for the operator to remove Material from the hopper while watching readout devices. Any hopper mounted on a platform scale shall have its center of gravity directly over the platform centerline.

Marked intervals on the readout device shall be spaced evenly throughout and shall be based on the scale's nominal rated capacity. These intervals shall be at least 1-pound, but shall not exceed one-tenth of 1 percent of nominal rated capacity.

An agent of the scale manufacturer shall test and service any batch scale before its use at each new site and then at 6-month intervals. The Contractor shall provide the Engineer a copy of the final results after each test. Whenever the Engineer requests, the Contractor's operator(s) shall test the scale while the Inspector observes.

Portland or asphalt cement shall be weighed on a scale not used for other materials.

1-09.2(3) SPECIFIC REQUIREMENTS FOR PLATFORM SCALES

Platform scales shall be certified scales that automatically print the net, tare, and gross weights on the ticket and shall have the size and capacity to weigh an entire hauling vehicle or combination of connected vehicles at one time. No part of the connected vehicle or combination shall be off the platform at the time of weighing.

A platform scale operator shall be designated by the Contractor to weigh all materials on the Contractor's platform scales and make the records thereof. The Contractor may also elect to use commercial scales. The Contractor shall furnish approved load tickets at the scale and legible duplicate copies to the Engineer at the delivery point and guarantee permission for Owner personnel to periodically observe the weighing and to check and compile the daily record of scale weights. Tare weights of each conveyance shall be taken two or more times daily.

Each commercial and certified weigher shall check the scales at least daily. The scales check methods and documentation procedures for scale checks and recording tare weights shall be approved by the Engineer. Checks shall be made throughout each Day to see that the scales are balanced and return to zero when no load is on them.

Any Contractor-supplied scale shall include a scale house with a floor space of at least 6 by 10 feet. The scale house shall be wind and weather tight, shall have windows for light and ventilation, shall include a door, and shall be lockable. It shall include a table, a chair, electrical power, and a space heater. The Contractor shall provide a rest room near the scale house.

Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end to eliminate binding and shifting. The platform scale beam or dial shall have graduated intervals of no more than 40 pounds. When testing the scales, the weights shall be read and recorded to the nearest 20 pounds and during weighing operations, weights shall be read and recorded to the nearest hundred weight (cwt.).

Before use at a new site and every six months thereafter, the scales shall be approved in accordance with local ordinances or rules of the State Department of Agriculture's Weights and Measures Section, or be serviced and tested by a scale company representative with at least 10,000 pounds, with a copy of the final test results provided to the Engineer.

1-09.2(4) SPECIFIC REQUIREMENTS FOR BELT CONVEYOR SCALES

Conveyor belt weighing may be accepted for untreated Materials provided that this method or device meets the general requirements of weighing equipment.

Belt conveyor scales shall meet the requirements for belt conveyor scales as specified in the National Bureau of Standards, Handbook No. 44, except as modified by these Specifications.

A daily static load test shall be made after an approximate 1/2 hour of continuous running of the belt conveyor and whenever the air temperature varies significantly. A chain test will be required whenever a need for adjustment has been determined by the daily static load test.

The test chain calibration computation, calibration procedures and results, and related documents shall be available for review by the Engineer. The test chain shall be clearly marked with its calibration. The test chain shall be carried in a suitable container and shall be immediately available for testing of the belt conveyor scales.

Comparisons of accuracy may be made by checking the average of 5 or more sequential hauling unit payloads on platform scales meeting the requirements of these Specifications. A comparative accuracy of $\pm 0.5\%$ of the payload of the average hauling unit will be acceptable. Since the recording odometer, of conveyor belt scales in general use, is graduated in 0.1 ton (i.e. 200 lbs.) increments and, since the recording is a cumulative process, minor differences in reading or variations smaller than 0.1 ton carry over from one vehicle unit to another. For greater accuracy, confirmation of the conveyor weights will be based on the tonnage values obtained from readings taken from the sealed odometer at the beginning and end of each check period. The number of check loads may be increased by the Engineer should the test results fluctuate.

The Contractor shall furnish appropriate serially numbered tickets as approved by the Engineer for self printing of the time and date of loading and the approximate load out weight. Each ticket shall be imprinted from a recording device at the loading point by the truck driver and delivered to the Engineer at the Project Site. The delivered ticket shall be marked with hauling conveyance equipment number.

The recording tape, odometer, totalizer, calibration adjustment and clock time imprinter shall be secured and locked. All keys shall be in the possession of the Engineer.

1-09.2(5) UNDERWEIGHING / OVERWEIGHING SCALES

In the event inspection, or random checks, reveals that scales have been underweighing, the scales shall be adjusted and no additional payment to the Contractor will be allowed for Materials previously weighed and recorded. Scales overweighing (indicating more than true weight) will not be permitted to operate and all Materials received subsequent to the last previous corrected weighing accuracy test will be reduced by the percentage of error in excess of one half of one percent. No payment will be made for Materials received by weight which have not been weighed in accordance with the foregoing Specification or other methods specifically approved in writing for the individual project. In the event these random checks result in net weights that are different by more than 1 percent of the smaller net weight, the Contractor shall, at the Engineer's option, thereafter utilize a certified scale of the Engineer's choice.

1-09.2(6) PAYMENT

All costs in connection with furnishing, installing, certifying and maintaining scales for furnishing check weights and scale house and for all other items specified in this Section for the weighing of construction Materials for proportioning or payment shall be included in the Bid item prices for the various Bid items of Work which comprise the Contract.

1-09.3 SCOPE OF PAYMENT**1-09.3(1) GENERAL**

The Contractor shall receive and accept compensation provided in the Contract as full payment for the following:

1. Furnishing all Materials and for performing all Work under the Contract in a complete and acceptable manner including changes in the Work, Materials, or Drawings as provided for by approved Change Orders.
2. All risks, loss, damage, or expense of whatever character arising out of the nature or prosecution of the Work.
3. All expense incurred in consequence of the suspension or discontinuance of the Work as specified in the Contract.

The payment of any estimate or retained percentage shall not relieve the Contractor of the obligation to make good any defective Work or unauthorized Work or defective Materials.

Unless the Contract provides otherwise, the Bid item prices for the various Bid items of the Work listed in the Bid Form shall be full compensation for all labor, Materials, Supplies, equipment, tools, and all things of whatever nature required for the complete incorporation of the Bid item into the Work, the same as though the Bid item were to read "in place".

The term, "lump sum", when used as a Bid item or Bid items of payment means full compensation for the Work described for that Bid item(s) in the Contract.

Unless modified otherwise in the Contract, the Bid items listed or referenced in the "Payment" clause of each Section of the Standard Specifications, will be the only Bid items for which compensation will be made for the Work described in or specified in that particular Section. Should the Contractor perform Work that is listed as a Bid item in a "Payment" clause but not in the Bid Form, then payment for that Work will be made in accordance with Section 1-04.1(2).

If the "Payment" clause in the Specifications relating to any Bid item price in the Bid Form requires that said Bid item price cover and be considered compensation for certain Work or Material essential to the item, then the Work or Material will not be measured or paid for under any other Bid item which may appear elsewhere in the Bid Form or Specifications.

Certain Bid items appearing in the Standard Specifications may be modified in the Contract to include words such as:

- 1) "For Structure", or "For Concrete Barrier", or "For Bridge", etc. with the intent of clarifying specific use; and/or
- 2) "Site (site designation)", with the intent of clarifying where a specific item of Work is to be performed.

Modifications of the Bid items in this manner shall not change the intent of the Specifications relating to these items.

Payment for Bid items listed or referenced in the "Payment" clause of any particular Section of the Specifications shall be considered as including all of the Work required, specified, or described in that particular Section. Payment items will generally be listed generically in the Specifications, [e.g., "Maintenance hole (type)"] and specifically in the Bid form (e.g., "Maintenance hole, Type 204A"). When items are to be "furnished" under one payment item and "installed" under another payment item, such items shall be furnished FOB to the Project Site, or, if specified in the Contract, delivered to a designated Owner site. Materials to be "furnished", or "furnished and installed" under these conditions, shall be the responsibility of the Contractor with regard to storage until such items are incorporated into the Work or, if such items are not to be incorporated into the Work, delivered to the applicable City storage site when provided for in the Specifications.

Payment for Material "furnished", but not yet incorporated into the Work, may be made on progress estimates to the extent allowed.

1-09.3(2) LUMP SUM BREAKDOWN

This breakdown will be used to determine partial lump sum Bid item payments on progress payments. Without an accepted lump sum breakdown, partial lump sum payments will be at the discretion of the Engineer. Submittals shall be in accordance with Section 1-05.3

Within three (3) Working Days of the Notice to Proceed or at the preconstruction conference, the Contractor shall submit a cost breakdown for each lump sum Bid item except mobilization, Bid items less than five thousand dollars (\$5,000), or Bid items for scopes of work that can be completed in less than two weeks. Costs shall be broken down by elements of work. For elements of work with a cost greater than five thousand dollars, the breakdown shall also include costs by labor, equipment, Material, and supplies.

1-09.4 EQUITABLE ADJUSTMENT FOR CHANGES

1-09.4(1) CHANGES IN CONTRACT WORK

The equitable adjustment provided for elsewhere in the Contract shall be determined by agreement between the Contractor and the Owner using:

1. Unit prices, or
2. Other agreed upon prices including lump sum.

If the parties cannot come to an agreement, the Owner shall determine the total price including overhead and profit.

When payment is by lump sum the Contractor shall provide substantiation of the lump sum price in accordance with Section 1-09.3(2). Payment shall include all costs for overhead and profit.

The Contractor shall include in the agreed price(s), retail sales tax as required by Section 1-07.2.

The following limitations shall apply in determining the amount of the equitable adjustment:

- 1) The equipment rates shall be actual cost but shall not exceed the rates set forth in the AGC/WSDOT Equipment Rental Agreement in effect at the time the Work is performed as referred to in Section 1-09.6.
- 2) To the extent any delay or failure of performance was concurrently caused by the Owner and the Contractor as described in Section 1-08.8(4), the Contractor shall be entitled to a time extension for the period of delay, provided it make such a request pursuant to Section 1-08.8; however, the Contractor shall not be entitled to any adjustment in Contract price.
- 3) No claim for anticipated profits on deleted, terminated, or uncompleted Work will be allowed.
- 4) No claim for consequential damages of any kind will be allowed

1-09.4(2) CHANGES IN LAW OR TAXES

Adjustments in the amount to be paid by the Owner under the terms and conditions of the Contract will not be made as a result of any change in laws, ordinances or regulations except as specifically provided by the following:

1. **Changes in Laws:** The Owner will not adjust payment to compensate the Contractor for changes in legal requirements unless those changes are specifically within the scope of RCW 39.04.120. For changes under RCW 39.04.120 the Owner will compensate the Contractor in accordance with Section 1-09.4(1).
2. **Changes in Taxes:** The Owner will adjust payment to compensate for tax changes under the following conditions:
 - a. The changes involve federal or State taxes on materials used in or consumed for the Work.
 - b. The changes increase Contractor paid taxes by more than \$500.
 - c. For items in the original Contract, the tax change must occur after the Bid Opening Date.

- d. For negotiated Contracts, the tax change must take place after the execution date of the Contract.
- e. The Contractor if requested by the Engineer certifies in writing that the Awarded Contract Price does not include an extra amount to cover a possible change in taxes.
- f. The Contractor permits the Owner to audit the Contractor's records to the extent necessary to substantiate any claim for compensation under the provisions of this Section.

Within the above conditions the Owner will adjust compensation by the actual dollar amounts of increase or decrease caused by the tax changes.

1-09.5 DELETED OR TERMINATED WORK

The Engineer may delete work by Change Order as provided in Section 1-04.4. The Owner may terminate the Contract in whole or part as provided in Section 1-08.10. When the Contract is terminated in part, the partial termination shall be treated as a deletion Change Order for payment purposes under this Section.

Payment for completed items will be at Bid item prices.

When any item is deleted in whole or in part by Change Order or when the Contract is terminated in whole or in part, payment for deleted or terminated work will be made as follows:

1. Payment will be made for the actual number of units of work completed at the Bid item unit prices unless the Engineer determines the Bid item unit prices are inappropriate for the work actually performed. When that determination is made by the Engineer, payment for work performed will be as mutually agreed. If the parties cannot agree the Engineer will determine the amount of the equitable adjustment in accordance with Section 1-09.4.
2. Payment for partially completed lump sum Bid items will be as mutually agreed. If the parties cannot agree, the Engineer will determine the amount of the equitable adjustment in accordance with Section 1-09.4.
3. To the extent not paid for by the Bid item prices for the completed units of work, the Owner will pay as part of the equitable adjustment those direct costs necessarily and actually incurred by the Contractor in anticipation of performing the Work that has been deleted or terminated.
4. The total payment for any one Bid item in the case of a deletion or partial termination shall not exceed the Bid item price as modified by approved Change Orders less the estimated cost (including overhead and profit) to complete the Bid item of work and less any amount paid to the Contractor for the Bid item.
5. The total payment where the Contract is terminated in its entirety shall not exceed the Revised Contract Price less those amounts paid to the Contractor before the effective date of the termination.
6. No claim for damages of any kind or for loss of anticipated profits on deleted or terminated work will be allowed because of the termination or Change Order.

Contract Time shall be adjusted as the parties agree. If the parties cannot agree, the Engineer will determine the equitable adjustment for Contract Time.

Acceptable Materials ordered by the Contractor prior to the date the Work was terminated as provided in Section 1-08.10(2) by the Owner or deleted as provided in Section 1-04.4 by the Engineer, will either be purchased from the Contractor by the Owner at the actual cost and shall become the property of the Owner, or the Owner will reimburse the Contractor for the actual costs connected with returning these Materials to the Materialperson.

1-09.6 FORCE ACCOUNT

1-09.6(1) GENERAL

The terms of the Contract or of a Change Order may call for Work or material to be paid for by force account. The Owner will reimburse the Contractor for all costs associated with the force account Work, including costs of labor, small tools, supplies, equipment, specialized services, materials, disposal costs, and applicable taxes. The mark-up values provided in this Section are intended to compensate for all applicable overhead, and profit. The amount to be paid shall be determined as described in this Section.

Nothing in this provision shall preclude the Contractor from seeking an extension of time or time-related adjustments to unchanged Work arising as a result of the force account Work. The amount and costs of any Work to be paid by force account shall be computed by the Engineer, and the result shall be final as provided in Section 1-05.1.

The parties may agree at any time to convert items included in the Bid as force account or added by Change Order as force account into agreed upon unit prices or lump sums applicable to the remaining Work.

Mark-up in Sections 1-09.6(2) to 1-09.6(5) shall only be applied once, regardless of whether such items are provided by the Contractor or by any tier of Subcontractor. However, the mark-up in Sections 1-09.6(2) to 1-09.6(5) shall not be applied for services acting in the manner of a Subcontractor. Services acting in the manner of a Subcontractor under Section 1-09.6(7) shall be considered a Subcontractor. Mark-up on work performed by a Subcontractor described in Section 1-09.6(7) will only be applied once, regardless of tier of Subcontractor, and not at all for work performed by the prime Contractor.

1-09.6(2) LABOR

Labor reimbursement calculations shall be based on a Contractor's "Project Labor List" (Labor List) prepared and submitted to the Engineer by the Contractor for the Contractor and for any Subcontractor before that firm commences force account Work. All Labor List submittals shall be made in accordance with Section 1-05.3. The Engineer will have 5 Working Days to review and either approve or reject a Labor List. If a Labor List is rejected, the Engineer will identify the reasons for rejection and the Contractor or Subcontractor shall have 2 Working Days to submit a new Labor List for review and approval.

Once a Labor List is approved by the Engineer, it shall be used to calculate force account labor payment until a new Labor List is submitted and approved. The Engineer may compare the Labor List to payrolls and other documents and may, at any time, request the Contractor to submit a new Labor List. The Contractor may also submit a new Labor List at any time subject to the same procedure for review and approval as the initial Labor List. Prior payments shall not be adjusted as a result of a new Labor List.

To be approved, the Labor List shall be accurate and meet the requirements of this Section. The Labor List shall include regular time rates and overtime rates for all employees and work classifications expected to participate in force account Work. These rates shall include the basic prevailing wage and fringe benefits, the current rates for Federal Insurance Compensation Act (FICA), Federal Unemployment Tax Act (FUTA) and State Unemployment Tax Act (SUTA), the firm's present rates for Medical Aid and Industrial Insurance premiums, and the planned payments for travel and per diem compensation. The rates shall not include any type of overhead cost or profit.

If there is no approved Labor List at the time for Work or Material to be paid for by force account the Engineer may elect to unilaterally develop a Labor List, using data that the Engineer determines to be the best available. Prior calculations prepared using the Engineer's Labor List will not be revised as a result of differences with the Contractor's Labor List.

In addition to compensation for direct labor costs defined above, the Owner will pay the Contractor 27 percent of the sum of the costs calculated for labor reimbursement to cover project overhead, general company overhead, profit, bonding, insurance required by Section 1-07.18, Business & Occupation tax, and any other costs incurred. This overhead amount will include any costs of standard safety training and health tests.

1-09.6(3) MATERIALS

The Owner will reimburse invoice cost for Contractor-supplied materials. For the purpose of the provision, "Materials" shall include those items incorporated into the Work, Supplies used during the Work and items consumed as part of the Work. This cost shall include freight and handling charges and applicable taxes. Before Work is started, the Engineer may require the Contractor to obtain multiple quotations for the materials to be utilized and the Engineer may select the vendor with prices and terms most advantageous to the Owner.

The Owner reserves the right to provide Materials. In this case, the Contractor shall receive no payment for any costs, overhead, or profit arising from the value of the materials themselves. Additional costs to handle and place the Owner (or Agency) furnished material shall be compensated as described within this Section (1-09.6).

Tipping fees, material disposal services, and other material disposal costs are not considered Materials, and shall be considered subcontracted services and addressed in Section 1-09.6(5).

The Contractor will provide a list of the types and quantities of Contractor-supplied materials, subject to verification by the Engineer. This list will be furnished promptly after the material is incorporated, on a daily basis unless agreed otherwise. The Contractor shall attach valid copies of vendor invoices to the list. Tickets of lading shall be submitted to the Engineer the Day Materials are received.

The Engineer will have 5 Working Days to review the prices and quantities on the Contractor-supplied materials list. If the Engineer agrees to the proposed prices, the Engineer will approve the completed list. If the Engineer does not agree, the list will be returned to the Contractor for revision. The Contractor shall submit the revised list to the Engineer within 3 Working Days. If the Engineer does not agree with revised prices or if the list has not been received by the Engineer within 3 Working Days after the list has been returned to the Contractor for revision, the Engineer will determine the cost for all or part of those Materials, utilizing the best data available.

If invoices are not available for materials from the Contractor's stocks, the Contractor shall certify actual costs (at a reasonable level) by affidavit including an explanation of how the actual costs certified were determined and supported by any relevant information supporting the certification. The Engineer will have 5 Working Days to review. If the Engineer agrees to the certified prices, the Engineer will approve the completed list. If the Engineer does not agree, the list will be returned to the Contractor for re-certification. If the Engineer does not agree with revised prices or if the list has not been received by the Engineer within 3 Working Days after the list has been returned to the Contractor for re-certification, the Engineer will determine the cost for all or part of those Materials, utilizing the best data available.

Once the list is approved, the prices will be used in the calculation of force account reimbursement for materials.

In addition to compensation for direct materials cost, the Owner will pay the Contractor 17 percent of the sum of direct material costs to cover project overhead, general company overhead, profit, bonding, insurance required by Section 1-07.18, Business & Occupation tax, and any other costs incurred.

1-09.6(4) EQUIPMENT

The Owner will reimburse the Contractor for the cost of equipment utilized in the force account Work. The Equipment provided by the Contractor shall be of modern design and in good working condition. For the purpose of this provision, "provided" shall mean that the equipment is owned (either through outright ownership or through a long-term lease) and operated by the Contractor or Subcontractor, or that the equipment is rented and operated by the Contractor or Subcontractor.

Equipment that is not being directly used for the force account work shall not be compensated on a "stand-by" or any other basis. Equipment that is being used on site for Contract work and for force account Work shall only be compensated under force account for the actual operational use, not on a "stand by" basis. Equipment required by the Engineer to be on-site for force account Work and no other Contract Work shall be compensated either for actual operational use or on a "stand by" basis. Equipment that is rented with operator shall not be included here, but shall be considered a service or service acting as a subcontractor and addressed according to Section 1-09.6(5) Services.

The amount of payment for any Contractor-owned equipment that is utilized shall be determined according to the version of the AGC/WSDOT Equipment Rental Agreement which is in effect at the time the force account Work is authorized. The rates listed in the Rental Rate Blue Book (as modified by the current AGC/WSDOT Equipment Rental Agreement) shall be full compensation for all fuel, oil, lubrication, ordinary repairs, maintenance, and all other costs incidental to furnishing and operating the equipment except labor for operation.

Contractor-owned equipment reimbursement calculations shall be based on a "Contractor-Owned Equipment List" (Equipment List) prepared and submitted by the Contractor and by any Subcontractor before that firm commences force account Work. All equipment list submittals shall be made in accordance with Section 1-05.3. Once an Equipment List is approved by the Engineer, it shall be used to calculate force account Contractor-owned equipment payment until a new Equipment List is submitted and approved. The Equipment List shall contain only equipment expected to be used in force account Work. The Engineer will compare the Equipment List to the Rental Rate Blue Book, at any time, and may require the Contractor to submit a new Equipment List. The Contractor may submit a new Equipment List at any time. Prior payment will not be adjusted as a result of a new Equipment List.

To be approved, the Equipment List shall be accurate and meet the requirements of this section. The Equipment List shall be supplemented with a "Rental Equipment List" showing daily, weekly, and monthly rental rates as applicable. Rental agreements shall be attached for all equipment that may be used on force account.

In the event that an acceptable initial Equipment List or a revised Equipment List is not received within 3 Working Days of a request by the Engineer, the Engineer will unilaterally develop an Equipment List, utilizing the best data available. The Engineer's Equipment List will be used until a Contractor's Equipment List is received and approved. Prior payments, prepared using the Engineer's Equipment List, will not be revised as a result of differences with the Contractor's Equipment List.

Payment for rented equipment will be made on the basis of a valid invoice, covering the time period of the Work. Before this Work is started, the Engineer may require the Contractor to obtain multiple quotations for the rental of equipment to be utilized and the select the vendor with prices and terms most advantageous to the Owner. In the event that prior quotations are not obtained and the vendor is not a firm independent from the Contractor or Subcontractor, then after-the-fact quotations may be obtained by the Engineer from the open market in the vicinity and the lowest such quotation may be used in place of submitted invoice.

In addition to the payments for Contractor-owned and rented equipment, one or more lump sum payments may be made for small tools. The amount to be paid shall be determined as outlined in the AGC/WSDOT Equipment Rental Agreement.

The Owner will add 17 percent to equipment costs to cover project overhead, general company overhead, profit, bonding, insurance as required by Section 1-07.18, Business & Occupation tax, and any other costs incurred. This markup will be over and above those equipment costs and will not be adjusted for any equipment overhead amounts included in the Blue Book rates.

Copies of the AGC/WSDOT Equipment Rental Agreement will be maintained on the WSDOT's web site at: www.wsdot.wa.gov.

1-09.6(5) SERVICES

A service shall be one that is typically billed through invoice in standard industry practice and consists of work that is being directly supervised or overseen by the Contractor. Tipping fees, material disposal services, and other material disposal costs incurred as a result of a force account item shall be considered subcontracted services. Compensation under force account for services shall be made on the basis of an invoice from the service provider unless otherwise directed by the Engineer as provided for within this Section.

Before force account Work is started, the Engineer may require the Contractor to obtain multiple quotations for the service to be used and select the provider with prices and terms most advantageous to the Owner. A service shall be approved by the Engineer before the start of the service provider's work. If services are not preapproved, or in the event that prior quotations are not obtained and the service invoice is submitted, then after-the-fact quotations may be obtained by the Engineer from the open market in the vicinity and the lowest such quotation may be used in place of the submitted invoice, or the Engineer may require the services to itemize labor, equipment, and materials and be paid based on these itemized rates, whichever results in the lower cost to the Owner.

Except as noted below and up to and including \$10,000 of invoiced cost, the Owner will pay the Contractor an additional 17 percent of the sum of the costs included on invoices for services to cover initial and ongoing project overhead, general company overhead, profit, bonding, insurance required by Section 1-07.18, Business & Occupation tax, and any other costs incurred.

Mark ups for services which are acting in the manner of a Subcontractor are provided under Section 1-09.6(7). When a supplier of services is compensated through invoice cost over \$10,000, the firm is acting in the manner of a Subcontractor as described in Section 1-09.6(7), and the markup for the invoiced costs over \$10,000 shall be according with Section 1-09.6(7).

1-09.6(6) FORCE ACCOUNT MOBILIZATION

Force account mobilization is defined as the preparatory Work performed by the Contractor including procurement, loading and transportation of tools and equipment, and personal travel time (when such travel time is a contractual obligation of the Contractor or a customary payment for the Contractor to all employees). Mobilization also includes the costs incurred during demobilization. Pro-rata adjustments may be made when the mobilization applies to both force account and other

Contract Work. The Owner will pay for mobilization for off-site preparatory Work for force account items provided that notice has been provided sufficiently in advance, as determined by the Engineer, to allow the Engineer to witness the off-site preparatory Work, if desired.

Any costs experienced during mobilization activities for labor, equipment, Materials, Supplies, or services shall be listed in those Sections of the force account summary and paid accordingly.

1-09.6(7) CONTRACTOR MARKUP ON SUBCONTRACTORS AND SERVICES ACTING IN THE MANNER OF A SUBCONTRACTOR

When Work is performed on a force account basis by one or more approved Subcontractors (including lower-tier Subcontractors or Suppliers), or through invoice by service firm(s) acting in the manner of a Subcontractor, the Contractor will be allowed a markup, from one of the tables below.

The markup in this Section shall only be applied once, regardless of tier level of Subcontractor.

The markup rates for the Contractor shall be calculated based on the accumulative cost, per Sections 1-09.6(2) to 1-09.6(4), and Section 1-09.6(5) if applicable, for the Work done by each Service or each Subcontractor on each force account item established.

The Engineer may request detailed breakdown of invoices as needed to verify costs and markups have been applied in accordance with the Contract.

A service provider or any other firm may be considered to be acting as a Subcontractor when the Engineer observes one or more of the following characteristics:

1. The person in charge of the firm's activities takes an active role in managing the overall project, including extensive coordination, interpretation of Drawings, interaction with the Owner or Engineer, or management of a complex and inter-related operation.
2. Rented equipment is provided, fueled, operated and maintained by the firm. Operators of rented equipment are supervised directly by the firm's representative. There is little interaction between the Contractor and the employees of the firm.
3. The firm appears to be holding the risk of performance and quality of the work.
4. The firm appears to be responsible for liability arising from the work.
5. The firm is performing a significant amount of work for the project, or force account item if applicable; the firm has performed over \$10,000 of invoiced work on the project, or force account item.

Markups on Work Performed by Subcontractor(s)

Accumulative Costs	Applicable Mark-up
On amounts of \$25,000 or less	12 percent
On amounts greater than \$25,000 up to \$100,000	10 percent
On amounts greater than \$100,000	7 percent

Markups on Work Performed by Service(s) Acting in the Manner of a Subcontractor

Accumulative Costs	Applicable Mark-up
Up to \$10,000	No additional mark up if a mark up was provided on the first \$10,000 of invoices under Section 1-09.6(5) or If no mark up was provided under 1-09.6(5), then 12 percent
On amounts greater than \$10,000 up to \$25,000	12 percent
On amounts greater than \$25,000 up to \$100,000	10 percent
On amounts greater than \$100,000	7 percent

1-09.7 PAYMENT FOR MOBILIZATION

Mobilization consists of preconstruction expenses and the costs of preparatory Work and operations performed by the Contractor that occur at the beginning of a project.

For the basis of calculating and paying mobilization as defined in this Section, the Awarded Contract Price shall exclude the mobilization Bid item, the price of Change Orders, and payments made for Materials on hand. If applicable, taxes will be included in all calculations for mobilization payment.

Based on the Bid item lump sum price for "Mobilization", progress estimates will be made as follows:

1. When 5 percent of the Awarded Contract Price (with exclusions applied) is earned from the original Contract Bid items, 50 percent of the amount Bid for mobilization or 5 percent of the Awarded Contract Price (whichever is lower), will be paid.
2. When 10 percent of the Awarded Contract Price (with exclusions applied) is earned from the original Contract Bid items, 100 percent of the amount Bid for mobilization or 10 percent of the Awarded Contract Price (whichever is lower), will be paid.
3. Any remaining costs for the mobilization Bid item will be paid following the project's Physical Completion Date.

1-09.8 PAYMENT FOR MATERIAL ON HAND

Progress estimates, to a maximum of 90% of the invoiced cost of Materials excluding taxes, or the Bid item price, whichever is less, may be made for Materials not yet incorporated into the Work if the Materials:

1. Meet the requirements of the Contract based upon inspections or testing by the Engineer;
2. Are delivered to Project Site or are stockpiled at a storage facility not on the Project Site;
3. Are properly stored and protected; and
4. Are insured against loss or damage.

In addition to the requirements above, Material delivered to the Project Site or to a storage facility not on the Project Site as permitted in item 2 above, will be considered for progress estimate only if the following additional conditions are met:

- 1) The storage of Materials is required for more than 30 Days, and
- 2) The Material is segregated from materials for any other project, and
- 3) The Material is tagged, labeled, or otherwise identified as belonging to the project, and
- 4) All costs associated with transportation of Material to the Project Site or other provisions acceptable to the Engineer made with regard to eventual delivery to the Project Site, are at the sole expense of the Contractor and shall be considered as included in the Bid item price.

The cost of Materials on hand will be determined by invoices from a Materialperson in sufficient detail to determine the actual cost. The Contractor shall furnish the Engineer an invoice for the Material marked "paid" within sixty (60) Days of the progress payment by the Owner for that Material on hand. If the paid invoice is not furnished within the prescribed time, and the Material has not been incorporated in the Work, a payment that has been made for that Material will be deducted from the next progress estimate and the Material will not be eligible for future payment as Material on hand.

Requests for payment for individual items or group of items of Material on hand, amounting to an invoice total of less than \$2000 will not be considered by the Engineer in the progress estimate for payment. Payment for sales taxes due on the purchase of such Material or equipment will not be made unless said taxes were paid by the Contractor to the Materialperson or fabricator for transmittal to the State by the Materialperson or fabricator and such tax is included on the invoice issued by the Materialperson.

Payment for Materials will not constitute acceptance. Unacceptable Material will be rejected even though payment may have been made for such Material in a progress estimate.

Deductions at the same rates and equal in amount to the payment for Material on hand will be made to future progress estimates as Material is incorporated into the Work and paid at the Bid item unit price, or for a Bid item lump sum price, the progress estimates percentage of the Bid item lump sum price. Deductions, at the same rates and equal in amount to the payment for Material on hand, will also be made for Material on hand which is rejected after a payment was made.

1-09.9 PAYMENTS

1-09.9(1) PROGRESS ESTIMATES

Payments for completed Work and Material on hand will be based upon progress estimates prepared by the Engineer and signed by the Contractor. A progress estimate cutoff date will be established at the preconstruction meeting.

Within three (3) Days after the progress estimate cutoff date (but not more often than once a month), the Contractor shall submit to the Engineer for review, an Application for Payment. The Application for Payment, filled out and signed by the Contractor, shall cover the Work completed, accepted, and not in dispute for the payment period prior to the progress estimate cutoff date. Application for Payments that include Force Account Work shall be accompanied by documentation supporting the claim for payment.

Payment requested for Materials and equipment on hand shall be in accordance with Section 1-09.8. The initial progress estimate will be made not later than thirty (30) Days after the Contractor commences the Work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the Work are tentative, and made only for the purpose of determining progress payment. The progress estimates are subject to change at any time prior to the calculation of the final payment.

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

1. **Unit Price Bid Items in the Bid Form:** The approximate quantity of Bid item units of Work completed multiplied by the Bid item unit price.
2. **Lump Sum Bid Items in the Bid Form:** The estimated percentage of each lump sum Bid item completed multiplied by the Bid item lump sum price.

3. **Materials on Hand:** To a maximum of ninety percent (90%) of invoiced cost of Material delivered to the Project Site or other storage area pursuant to Section 1-09.8.
4. **Change Orders:** Entitlement for approved extra cost or completed extra work as determined by the Engineer.

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

- 1) Five percent (5%) pursuant to RCW 60.28.
- 2) The amount of progress payments previously made.
- 3) Funds withheld by the Owner for disbursement in accordance with the Contract.

Progress payments for Work performed shall not be evidence of acceptable performance or an admission by the Engineer that any Work has been satisfactorily completed.

Payments will be made by warrants, issued by the Owner's fiscal officer, against the appropriate fund source for the project.

Payments received by the Contractor on account of Work performed by a Subcontractor are subject to the requirements of RCW 39.04.250.

1-09.9(1)A FINAL PROGRESS PAYMENT

The Final Contract Price will be calculated based upon a final progress estimate made by the Engineer. The final progress payment will not be paid until the Contractor has submitted on the Owner-provided form a complete list of all Subcontractors of all tiers and Suppliers who worked on the project and information including but not limited to Subcontractor name, UBI Number, Intent and Affidavit Numbers, and total amount paid.

Acceptance by the Contractor of the final payment shall be and shall operate as a release to the Owner from the Contractor:

1. Of all claims and all liabilities of the Owner, other than claims in stated amounts which have been asserted pursuant to the Dispute and Claim Resolution process as described in Section 1-04.5;
2. For all things done or furnished in connection with the Work;
3. For every act and neglect by the Owner; and
4. For all other claims and liability relating to or arising out of the Work.

A payment (monthly, final, retainage, or otherwise) shall not:

- 1) Release the Contractor or the Contractor's Surety from any obligation required under the terms of the Contract or the Payment and Performance Bond; or
- 2) Preclude the Owner from recovering damages, setting penalties, or obtaining such other remedies as may be permitted by law.

1-09.9(2) RETAINAGE OPTIONS

Pursuant to Chapter 60.28 RCW there will be reserved and retained from monies earned by the Contractor on progress estimates during the progress of the Work, a sum equal to five percent (5%) of the monies earned by the Contractor. Such retainage shall be used as a trust fund for the protection and payment of:

1. Claims by the State with respect to taxes imposed pursuant to Titles 50, 51, and 82 RCW that may be due from such Contractor;
2. The claims of any person or persons, mechanic, Subcontractor or Materialperson who shall perform any labor under such Contract or the doing of said Work, and all persons who shall supply such person or persons or Subcontractors with provisions or Supplies for carrying on such Work; and
3. After satisfaction of the foregoing claims, the Owner may withhold from the remaining retained amounts or bond for claims it may have against the Contractor and thereafter shall pay or in the case of a bond, release, the balance, if any, to the Contractor under RCW 60.28.021.

Monies reserved under provisions of Chapter 60.28 RCW shall, at the option of the Contractor, be:

- 1) Retained in a non-interest-bearing fund by the Owner;
- 2) Deposited by the Owner in an interest bearing account in a bank, mutual savings bank, or savings and loan association. Interest on moneys reserved by the Owner under the provisions of a public improvement contract shall be paid to the Contractor;
- 3) Placed in escrow with a bank or trust company by the Owner. When the monies reserved are to be placed in escrow the Owner will issue a check representing the sum of the monies reserved payable to the bank or trust company and the Contractor jointly. Such check shall be converted into bonds and securities chosen by the Contractor and approved by the Owner and the bonds and securities held in escrow. Interest on the bonds and securities may be paid to the Contractor as the interest accrues; or
- 4) Provided for by the Contractor's submission of a retainage bond (bond in lieu of retained funds). The Owner may accept the retainage bond if it is complete, on a form provided by the Owner, provided by a Surety meeting the requirements of Section 1-03.3(2), for the amount equal to five percent (5%) of the Contract Award Amount, less Washington State Sales Tax, and meets the provisions of RCW 60.28.

The Contractor shall designate the option desired on the Agreement Form at the time the Contractor executes the Contract with the Owner. The option selected shall be considered part of the Contract. If the Contractor chooses option 2) or 3), the Contractor shall assume full responsibility to pay all costs that may accrue from escrow services, brokerage charges or both, and further assumes all risks in connection with the investment of the retained percentages in securities.

Retainage will not be reduced for any reason below the minimum limit provided by law.

1-09.9(3) OWNER'S RIGHT TO WITHHOLD AND DISBURSE CERTAIN AMOUNTS

In addition to moneys retained pursuant to RCW Ch. 60.28 and subject to RCW 39.04.250, RCW Ch. 39.12, and RCW Ch. 39.76, the Contractor authorizes the Owner or Engineer to withhold progress payments due or deduct an amount from any payment or payments due the Contractor that, in the Owner's or Engineer's opinion, may be necessary to cover the Owner's costs for or to remedy the following situations:

1. Damage to another contractor when there is evidence thereof and a claim has been filed;
2. Where the Contractor has not paid fees or charges to public authorities or municipalities that the Contractor is obligated to pay;
3. Utilizing material, tested and inspected by the Engineer, for purposes not connected with the Work (Section 1-05.6);
4. Landscape damage assessments per Section 1-07.16;
5. For overtime work performed by City personnel per Section 1-08.1(5);
6. Anticipated or actual failure of the Contractor to complete the Work on time:
 - a. Per Section 1-08.8 Time Extensions and Delays – Entitlement and Compensation; or
 - b. Lack of construction progress based upon the Engineer's review of the Contractor's approved progress schedule that indicates the Work will not be completed within the Contract Time. When calculating an anticipated time overrun, the Engineer will make allowances for weather delays, approved unavoidable delays, and suspensions of the Work. The amount withheld under this subparagraph will be based upon the Liquidated Damages amount per Day set forth in Contract multiplied by the number of Days the Contractor's approved progress schedule, in the opinion of the Engineer, indicates the Contract may exceed the Contract Time.
7. Failure of the Contractor to perform any of the Contractor's other obligations under the Contract, including but not limited to:
 - a. Failure of the Contractor to promptly pay in accordance with 1-09.14
 - b. Failure of the Contractor to provide the Engineer with a field office when required by the Contract.
 - c. Failure of the Contractor to protect survey stakes, markers, etc., or to provide adequate survey work as required by Section 1-05.5.
 - d. Failure of the Contractor to correct defective or unauthorized Work (Section 1-05.8).
 - e. Failure of the Contractor to furnish a Manufacturer's Certificate of Compliance in lieu of Material testing and inspection as required by Section 1-06.3.
 - f. Failure to submit weekly payrolls, Intent to Pay Prevailing Wage forms, or correct underpayment to employees of the Contractor or Subcontractor of any tier as required by Section 1-07.9.
 - g. Failure of the Contractor to pay worker's benefits (Title 50 and Title 51 RCW) as required by Section 1-07.18(9).
 - h. Failure of the Contractor to submit and obtain approval of, and revise as required, a progress schedule per Section 1-08.3.
 - i. Failure to meet non-discrimination requirements as required in Section 1-07.11.
 - j. Failure of the Contractor to comply with the outcome of the resolution of payment disputes. In this instance, the withholding of funds shall be consistent with the terms of the dispute resolution process, including any cost of the dispute resolution process as applicable (Section 1-04.5).
 - k. Failure of the Contractor to timely comply with submittal requirements, including providing the Engineer with updates to the submittal control document (Section 1-05.3).

The Contractor authorizes the Owner or Engineer to act as agent for the Contractor in disbursing such funds as have been withheld pursuant to this section to a party or parties who are entitled to payment. Disbursement of such funds, if the Owner or Engineer elects to do so, will be made only after giving the Contractor fifteen (15) Calendar Days prior written notice of: the Owner's intent to do so, the reason the funds are being withheld or deducted, and stating what action, if any, the Contractor shall take to remedy the situation or resolve the dispute. The Owner will withhold or disburse the funds after the expiration of the fifteen (15) -Calendar Day period so long as:

- 1) No legal action has commenced to resolve the validity of the claims, and
- 2) The Contractor has not disputed such disbursement under Section 1-04.5.

A proper accounting of all funds disbursed on behalf of the Contractor in accordance with this section will be made. A payment made pursuant to this section shall be considered as payment made under the terms and conditions of the Contract. The Owner shall not be liable to the Contractor for such payment made in good faith.

If legal action is instituted to determine the validity of the claims prior to expiration of the fifteen (15) Day period mentioned above, the Owner or Engineer will hold the funds until determination of the action or written settlement agreement of the parties.

1-09.9(4)A REQUEST FOR CONTRACT COMPLETION DATE

After the Physical Completion Date is established and after all obligations of the Contract other than retainage release have been completed, the Engineer will submit an acceptance package with supporting documents to CPCS requesting a Completion Date. In order for CPCS to declare the project complete, CPCS requires the following if not previously provided:

1. Documents that all work is completed:
 - a. The State Notice of Completion (NOC) of Public Works Contract form (LNI form F215-038-000) filled out electronically by the administering department with as much information as possible (CPCS will submit the form);
 - b. NTP, Substantial, and Physical Completion Notices with Dates;
 - c. All Change Orders;
 - d. All calculations of Liquidated Damages;
 - e. All claims under 1-04.5 resolved and the Final Contract Price set;
 - f. All permit conditions completed; and
 - g. All other requirements of the Work are met.
2. The Contractor shall furnish all documentation and reports electronically online, or via paper where allowed, as required by the Contract and required by law, necessary to allow the Owner to certify the Contract as complete. These include but are not limited to:
 - a. List from the Contractor on the Owner-provided form of all Subcontractors of all tiers and Suppliers who worked on the project and information including but not limited to Subcontractor name, UBI Number, Intent and Affidavit Numbers, and total amount paid;
 - b. The Contractor's approved Affidavit of Wages Paid on file with L & I;
 - c. Final Subcontractor Payment Report submitted online per Section 1-07.11(2)A;
 - d. Audits per Section 1-04.5(6) Physical Completion;
 - e. Material certifications per Section 1-06.3 if not provide by Physical Completion;
 - f. Certified payrolls and prevailing wage statements per Section 1-07.9;
 - g. All Apprenticeship Utilization Reports per Section 1-07.11(5), if applicable;
 - h. If it is a federally-funded contract, all Federal final approvals have been received, and all final federal reports including training, EEO, and prevailing wage certified payrolls have been submitted; and any other federally-required reports; and
 - i. Any other reports or documentation required.

1-09.9(4)B COMPLETION DATE

CPCS will review the acceptance package and supporting documents to ensure all the obligations of the Contract are complete other than release of retainage.

CPCS will then:

1. Set the Completion Date and issue the Certificate of Completion;
2. Send the Notice of Completion of Public Work Contract to the state agencies as required by RCW 60.28.051;
3. Publish the Notice of the Completion Date and the deadline for filing liens and claims in the City's Official Publication; and
4. Notify the Surety and the Contractor.

The Contractor agrees that establishment of the Completion Date shall not relieve the Contractor of the responsibility to indemnify, defend, and protect the Owner against any claim of loss resulting from the failure of the Contractor, a Subcontractor of any tier, or any other person who provides labor, Supplies, or provisions for carrying out the Work or for any payments required for unemployment compensation under Title 50 RCW or for industrial insurance and medical aid required under Title 51 RCW. The establishment of the Completion Date will not constitute acceptance of unauthorized Work or defective Work or Material.

Failure of the Contractor to perform any or all of the Contractor's obligations under the Contract shall not bar the Owner from unilaterally certifying the Contract as complete.

1-09.9(4)C RELEASE OF RETAINAGE

Release of the retainage or retainage bond will be made following the Completion Date pursuant to the provisions of Chapters 39.12 RCW, 39.76 RCW, and 60.28 RCW provided all of the following conditions are met:

1. On Contracts totaling more than \$35,000.00 (excluding tax), a release has been obtained from the Washington State Department of Revenue, the Employment Security Department, and the Department of Labor and Industries (RCW 60.28.051).
2. No claims, as provided by law, have been filed against the retainage (RCW 60.28.021).
3. The Owner has no claim against the Contractor for unpaid fees, taxes, or other amounts.

For retainage bonds, notification will be provided to the Surety and Contractor of the release of the retainage bond.

Retainage will be released as soon as practicable and no later than 10 Working Days after all legal requirements have been and met and retainage has been approved for release.

1-09.10 RESERVED

1-09.11 RESERVED

1-09.12 AUDITS

1-09.12(1) GENERAL

The Contractor's wage, payroll, and cost records on this Contract shall be open to inspection or audit by representatives of the Owner during the life of the Contract and for a period of not less than three years after the Completion Date. The Contractor shall retain these records for that period. If requested, the Contractor shall promptly furnish copies of these records to the Owner. The Contractor shall also guarantee that the wage, payroll, and cost records of all Subcontractors, regardless of tier, be retained and open to similar inspection or audit for the same period of time.

The audit may be performed by employees of the Owner or by an auditor under contract with the Owner. The Contractor and Subcontractors of any tier shall provide adequate facilities, acceptable to the Owner, for the audit during normal business hours and shall make a good faith effort to cooperate with the auditors.

If an audit is to be commenced more than sixty (60) Calendar Days after the Completion Date, the Contractor will be given 20 Calendar Days Written Notice of the time when the audit is to begin. If any litigation, claim, or audit arising out of, in connection with, or related to this Contract is initiated, the wage, payroll, and cost records shall be retained until such litigation, claim, or audit involving the records is completed.

1-09.12(2) CLAIMS

All claims, and documentation for mediation, filed against the Owner shall be subject to audit at any time following the filing of the claim or request for mediation as applicable. Failure of the Contractor or, if applicable, a Subcontractor of any tier to maintain and retain sufficient records to allow the auditors to verify all or a portion of the claim, and documentation for mediation when applicable, or to permit the auditor access to the books and records of the Contractor, Subcontractor of any tier, or their agents shall constitute a waiver of a claim and shall bar any recovery thereunder.

1-09.12(3) REQUIRED DOCUMENTS FOR AUDITS

The Contractor shall make available all documents requested by the auditors including, but not limited to, the following documents:

1. Daily time sheets and supervisor's daily reports.
2. Union agreements.
3. Insurance, welfare, and benefits record.
4. Payroll registers.
5. Earnings records.
6. Payroll tax forms.
7. Material invoices and requisitions.
8. Material cost distribution worksheet.
9. Equipment records (list of company equipment, rates, etc.).
10. Vendors, rental agencies, Subcontractors, and agents invoices.
11. Subcontractor agreements and, pursuant to Section 1-08.1(3), payment certifications (including those of second and lower tier Subcontractors when applicable).
12. Cancelled checks (payroll and Vendors).
13. Job cost report.
14. Job payroll ledger.
15. General ledger.
16. Cash disbursements journal.
17. Financial statements for all years that reflect the operations on this Contract. In addition, City auditors may require, if it deems appropriate, additional financial statements for 3 years preceding execution of the Contract, and for 3 years following the Completion Date.
18. Depreciation records on all company equipment whether these records are maintained by the company involved, its accountant, or others.
19. If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents.
20. All documents that relate to each and every claim together with all documents that support the amount of damages as to each claim.

21. Worksheets or software used to prepare the claim establishing the cost components for items of the claim including but not limited to labor, benefits and insurance; materials, equipment, Subcontractors; all documents which establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals; and home office overhead.
22. Worksheets, software, and all other documents used by the Contractor to prepare its Bid.

1-09.13 RESERVED

1-09.14 PROMPT PAYMENT TO SUBCONTRACTORS AND PERSONS SUPPLYING LABOR, MATERIALS AND SUPPLIES

1-09.14(1) GENERAL

This Section requires every Contractor of any tier to pay every Subcontractor who is also a small business, within 30 Calendar Days of satisfactorily completed work and delivered materials. A Subcontractor who is also a small business is defined as those the Contractor has engaged by agreement to provide labor or materials for the project, including a person or persons, mechanic, Subcontractor, Supplier or Materialperson, when the Subcontractor is registered as a WMBE firm with the City of Seattle, is a business certified by the King County Small Business Concerns Program, or is certified by the State of Washington as a DBE or by the State of Washington as a WMBE firm.

Payment is considered made when mailed or personally delivered to the Contractor; an invoice is considered received when date-stamped or marked as delivered. If not date-stamped or marked as delivered, the invoice date shall be the date recorded by the Contractor.

Nothing in this Section negates the right or importance of Subcontractors filing a claim against the bond or retainage and otherwise protecting their legal rights.

1-09.14(2) PROGRESS PAYMENTS AND PROMPT PAYMENT TO SUBCONTRACTORS

The Contractor shall promptly pay, within thirty (30) Calendar Days, for invoiced work satisfactorily completed or materials delivered by a certified small business Subcontractor (defined as above as a Subcontractor who is a WMBE firm who is registered with the City of Seattle, a certified Small Business Concern by King County, or a DBE or a WMBE firm certified by the State of Washington) and no later than ten (10) Working Days of receipt of a progress payment from the Owner for all other work by Subcontractors which are not certified small businesses.

The Contractor of any tier shall pay such Subcontractor, less applicable retainage, for all work that the Contractor has found to meet the quality and performance agreed upon with the Subcontractor. This shall include payment for actual mobilization costs incurred. This shall also include work that has been directed to the Subcontractor when the price has been agreed to by the Owner, Contractor and Subcontractor, whether the Owner has provided payment or executed a Change Order to the Contractor. Amounts withheld are limited to the value of the portion of work that has not been satisfactorily completed, with a documented dispute as described in 1-09.14(3). Such withheld amount shall be no more than one hundred fifty percent of the disputed amount.

1-09.14(3) UNSATISFACTORY PERFORMANCE BY SUBCONTRACTOR

If any work or product is unsatisfactory and subject to withholding of payment, the Contractor shall provide written notification to the Subcontractor and Owner of corrective actions required by the Subcontractor. Such written notice shall be given as soon as practicable after work has been performed.

After the Subcontractor satisfactorily completes the corrections, the Contractor shall pay the Subcontractor within eight (8) Working Days the remaining amounts withheld, less retainage. Should a Contractor find work unsatisfactory without reasonable cause, fail to provide written notification within a reasonable time, or otherwise fail to meet the scheduled days herein, the Contractor may be found to be in breach of the contract by the Owner, subject to all remedies.

1-09.14(4) PAYMENT OF RETAINAGE TO SUBCONTRACTORS

The following procedure shall apply to all subcontracts entered into as a part of this Contract:

Requirements: The Subcontractor shall make a written request to the Contractor for the release of the Subcontractor's retainage or retainage bond.

Within ten (10) Working Days of the request, the Contractor shall determine if the subcontract has been satisfactorily completed and shall inform the Subcontractor, in writing, of the Contractor's determination.

If the Contractor determines that the subcontract has been satisfactorily completed, the Subcontractor's retainage or retainage bond shall be released by the Contractor within ten (10) Working Days from the date of the written notice.

If the Contractor determines that the Subcontractor has not achieved satisfactory completion of the subcontract, the Contractor shall provide the Subcontractor with written notice, stating specifically why the subcontract work is not satisfactorily completed and what has to be done to achieve completion. The Contractor shall release the Subcontractor's retainage or retainage bond within eight (8) Working Days after the Subcontractor has satisfactorily completed the work identified in the notice.

In determining whether satisfactory completion has been achieved, the Contractor may require the Subcontractor to provide documentation such as certifications and releases, showing that all laborers, lower-tiered Subcontractors, suppliers of material and equipment, and others involved in the Subcontractor's work have been paid in full. The Contractor may also require any documentation from the Subcontractor that is required by the subcontract or by the Contract between the Contractor and Owner or by law such as affidavits of wages paid, material acceptance certifications and releases from applicable governmental agencies to the extent that they relate to the Subcontractor's work.

If the Contractor fails to comply with the requirements of the Specification and the Subcontractor's retainage or retainage bond is wrongfully withheld, the Subcontractor may seek recovery against the Contractor under applicable prompt pay statutes in addition to any other remedies provided for by the subcontract or by law.

Conditions: This clause does not create a contractual relationship between the Owner and any Subcontractor as stated in Section 1-08.1(3). Also, it is not intended to bestow upon any Subcontractor, the status of a third-party beneficiary to the Contract between the Owner and the Contractor.

This Section of the Contract does not apply to retainage withheld by the Owner from monies earned by the Contractor. The Owner shall continue to process the release of that retainage based upon the Completion Date of the project as defined in Section 1-08.5 Time for Completion and in accordance with the requirements and procedures set forth in RCW Chapter 60.28.

1-09.14(5) INCORPORATION OF PROVISIONS

The Contractor shall include either specifically in each of its subcontracts a provision setting forth the payment and interest penalty clause of this Section 1-09.14, or in each of its subcontracts a provision incorporating by reference all the terms of its contract with the Owner. In addition, the Contractor shall require its Subcontractors to include such a payment and interest penalty clause in each of their subcontracts and to require each of their Subcontractors to include such clauses in their subcontracts with each lower tier Subcontractor, either specifically or by reference.

1-09.14(6) OTHER SUBCONTRACT PAYMENT PROVISIONS

Any subcontract agreement, at any tier, with provisions for Subcontractor payment sooner than those specified in this Section, or interest payments greater than those specified in this Section, shall take precedence over the provisions of this Section.

1-09.14(7) SUBCONTRACTOR CLAIMS AGAINST BONDS

Notification of the Owner is only part of the lien and claim process; All Subcontractors and Suppliers are responsible to take all actions required under law to perfect their claims and liens including taking additional legal steps beyond notification of the Owner.

To obtain a copy of a bond or notify the Owner of a lien or claim against the Contractor's Payment and Performance Bond or the Retainage Bond, send the request or notification to Aleanna Kondelis at Aleanna.Kondelis@Seattle.gov or to the mailing address or via fax to 206-684-4511.

SECTION 1-10 TEMPORARY TRAFFIC CONTROL**1-10.1 GENERAL**

The Contractor, shall plan, manage, supervise and perform all temporary traffic control activities needed to support the Work of the Contract.

Installation and maintenance of temporary traffic control for pedestrian and vehicular traffic within the street Right of Way shall be performed in accordance with established standards defined in Section 1-10.2(5)B.

The Contractor shall:

1. Provide flaggers, signs, and other traffic control devices not otherwise specified as being furnished by the Owner.
2. Not work on or adjacent to any traveled way until all necessary signs and traffic control devices are in place.
3. Unless the section of street is to be completely closed to vehicular traffic, schedule and plan the Work to:
 - a. Meet any lane closure restrictions that are specified in Section 1-10.2(5)D, and current approved Traffic Control Plan for the Work being performed.
 - b. Permit the maximum number of normally available traffic lanes to be opened in the direction of the heaviest flow of traffic during the peak hours.
 - c. Maintain 2-way traffic at all times except on "one-way" streets. Additional width for facilitating traffic flow may be obtained by requesting on-street parking be prohibited adjacent to the Work area.
 - d. Maintain traffic on a paved surface whenever possible. In the event that a graveled or dirt surface must be used as a detour, maintain a smooth surface and control dust. Deviations from a paved surface require specific approval from the Engineer.
 - e. Clean up spillage from trucks on the pedestrian or driving surface adjacent to the work area. See Sections 1-07.5 and 1-07.23.
 - f. Provide safe and protected pedestrian ways. See Section 1-07.23.
 - g. Not park or place construction equipment in a manner that creates unnecessary sight distance obstructions or other safety issues for vehicular or pedestrian traffic.
 - h. Maintain, in proper condition, work area traffic control devices on an "around the clock" basis whether or not work is actively being pursued. In addition, the Contractor shall assure that tools and equipment are properly stored and excavation bridging is secure and adequately covers excavation.
4. Erect and maintain all construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public at all times from injury or damage resulting from the Contractor's operations.
5. Be liable for injuries and damages to persons and property suffered by reason of the Contractor's operations or any negligence in connection therewith.
6. Construct, maintain in a safe condition, keep open to traffic, and remove when no longer needed detours and temporary approaches that will accommodate traffic diverted from the roadway, walkway or bridge during construction. On-site or off-site detours required or necessitated by the Work, including side street crossings, temporary bridges, utilization of one or more lanes of the construction area for maintenance of through traffic, and related traffic control shall be the responsibility of the Contractor.
7. Comply with the requirements of the street use permit as identified in 1-07.6.

1-10.1(1) DESCRIPTION

The Contractor shall provide signs and other traffic control devices not otherwise specified as being furnished by the Owner. The Contractor shall erect and maintain all construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public at all times from injury or damage as a result of the Contractor's operations which may occur on highways, roads, streets, sidewalks, or paths. No work shall be done on or adjacent to any traveled way until all necessary signs and traffic control devices are in place.

Upon failure of the Contractor to immediately provide flaggers; erect, maintain, and remove signs; or provide, erect, maintain, and remove other traffic control devices when ordered to do so by the Engineer, the Owner may, without further notice to the Contractor or the Surety, perform any of the above and deduct all of the costs from the Contractor's payments.

The Contractor shall be responsible for providing adequate labor, traffic control devices including sufficient signs, and for performing traffic control procedures needed for the protection of the Work and the public at all times regardless of whether or not the labor, devices or procedures have been ordered by the Engineer, furnished by the Owner, or paid for by the Owner.

Wherever possible when performing Contract Work, the Contractor's equipment shall follow normal and legal traffic movements. The Contractor's ingress and egress of the Work area shall be accomplished with as little disruption to traffic as possible. Traffic control devices shall be removed by picking up the devices in a reverse sequence to that used for installation. This may require moving backwards through the workzone. When located behind barrier or at other locations shown on approved traffic control plans, equipment may operate in a direction opposite to adjacent traffic.

1-10.1(2) MATERIALS

Materials shall meet the requirements of the following Sections:

1. Stop/Slow Paddles 9-38.1
2. Construction Signs 9-38.2
3. Wood Sign Posts 9-38.3
4. Sequential Arrow Signs 9-38.4
5. Portable Changeable Message Signs 9-38.5
6. Barricades 9-38.6
7. Traffic Safety Drums 9-38.7
8. Barrier Drums 9-38.8
9. Traffic Cones 9-38.9
10. Tubular Markers 9-38.10
11. Warning Lights and Flashers 9-38.11
12. Truck-Mounted Attenuator 9-38.12
13. Tall Channelizing Devices 9-38.13
14. Portable Temporary Traffic Control Signal 9-38.14
15. Type III or Type IV Reflective Sheeting 9-38.15

1-10.2 TRAFFIC CONTROL MANAGEMENT**1-10.2(1) GENERAL**

It is the Contractor's responsibility to plan, conduct and safely perform the Work. The Contractor shall manage temporary traffic control with its own staff. The Owner may inspect work in the street Right of Way with regard to type and placement of pedestrian and vehicular traffic control devices. Traffic control devices not meeting the requirements of the MUTCD, Seattle Traffic Control Manual (STCM), and the Contract shall be considered non-standard. Non-standard traffic control devices shall not be used unless specifically approved for use, in writing, by the Engineer.

The Contractor shall patrol the traffic control area at least once a Day and as often as necessary, to reset all disturbed signs and traffic control devices. Signs and other traffic control devices shall be removed or covered during periods when they are not necessary.

Before beginning Work, the Contractor shall designate an individual or individuals to perform the duties of Traffic Control Manager (TCM) and Traffic Control Supervisor (TCS). Traffic control management responsibilities shall be formally assigned to one or more company supervisors who are actively involved in the planning and management of field Contract activities. The Contractor shall provide the Engineer with a copy of the formal assignment. The traffic control management duties of the TCM may not be subcontracted.

The Contractor shall designate an individual or individuals to perform the duties of the primary TCS. The designation shall also identify an alternate TCS who can assume the duties of the primary TCS in the event of that person's inability to perform. The TCS shall be responsible for safe implementation of approved Traffic Control Plans.

The primary and alternate TCS shall be certified as worksite traffic control supervisors by one of the organizations listed below or others as approved by the Engineer:

The Northwest Laborers-Employers Training Trust
 27055 Ohio Ave.
 Kingston, WA 98346
 (360) 297-3035

Evergreen Safety Council
 401 Pontius Ave. N.
 Seattle, WA 98109
 1-800-521-0778 or
 (206) 382-4090

The American Traffic Safety Services Association
 15 Riverside Parkway, Suite 100
 Fredericksburg, Virginia 22406-1022
 Training Dept. Toll Free (877) 642-4637
 Phone: (540) 368-1701

Possession of a current flagging card by the TCS is mandatory. A traffic control management assignment and a TCS designation are required on any Contract that will utilize traffic control. The Contractor shall provide documentation of TCS certifications.

The Contractor shall maintain 24-hour telephone numbers at which the Contractor's assigned traffic control management personnel and the TCS can be contacted and be available upon the Engineer's request at other than normal working hours. These personnel shall have the resources, ability and authority to expeditiously correct any deficiency in the traffic control system.

1-10.2(2) TRAFFIC CONTROL MANAGER (TCM)

The responsibilities of the Contractor's traffic control management personnel shall include:

1. Overseeing and approving the actions of the Traffic Control Supervisor (TCS) to ensure that proper safety and traffic control measures are implemented and consistent with the specific requirements created by the Contractor's work zones and the Contract. Some form of oversight shall be in place and effective even when the traffic control management personnel are not present at the jobsite.
2. Providing the Contractor's designated TCS with approved Traffic Control Plans (TCPs) which are compatible with the Work operations and traffic control for which they will be implemented.
3. Discussing proposed traffic control measures and coordinating implementation of the Contractor-adopted traffic control plan(s) with the Engineer.
4. Coordinating all traffic control operations, including those of Subcontractors and suppliers, with each other and with any adjacent construction or maintenance operations.
5. Coordinating the project's activities (such as ramp closures, road closures, and lane closures) with appropriate police, fire control agencies, city or county engineering, medical emergency agencies, school districts, disposal companies and transit companies (for METROKC transit, Streetcars, and Sound Transit Link Light Rail, see Section 1-07.28).
6. Overseeing all requirements of the Contract that contribute to the convenience, safety, and orderly movement of vehicular and pedestrian traffic.
7. Reviewing the TCS's diaries daily and being aware of field traffic control operations.
8. Being present on-site a sufficient amount of time to adequately satisfy the above-listed responsibilities.

Failure to carry out any of the above-listed responsibilities shall be a failure to comply with the Contract and may result in a suspension of Work as described in Section 1-08.6.

1-10.2(3) TRAFFIC CONTROL SUPERVISOR (TCS)

A Traffic Control Supervisor (TCS) shall be present on the Project Site whenever flagging or spotting or other traffic control labor is being utilized or less frequently, as authorized by the Engineer.

The TCS shall personally perform all the duties of the TCS. During non-work periods, the TCS shall be present at the job site within a 45-minute time period after notification by the Engineer.

The TCS's duties shall include:

1. Having a current approved Traffic Control Plan (TCP), the Seattle Traffic Control Manual, and the latest adopted edition of the *MUTCD*, including the *Washington State Modifications to the MUTCD*, the book *Quality Guidelines for Work Zone Traffic Control Devices*, and applicable standards and Specifications.
2. Inspecting traffic control devices and nighttime lighting for proper location, installation, message, cleanliness, and effect on the traveling public. Traffic control devices shall be inspected at least once per hour during working hours except that Class A signs and nighttime lighting need to be checked once per week. Traffic control devices left in place for 24-hours or more shall also be inspected once during the nonworking hours when they are initially set up (during daylight or darkness, whichever is opposite of the working hours). The TCS shall correct, or arrange to have corrected, any deficiencies noted during these inspections.
3. Preparing a daily traffic control diary on each Day that traffic control is performed and submitting them to the Engineer no later than the end of the next Working Day. Diary entries shall include, but not be limited to:
 - a. Time of Day when signs and traffic control devices are installed and removed,
 - b. Location and condition of signs and traffic control devices,
 - c. Revisions to the traffic control plan,
 - d. Lighting utilized at night, and
 - e. Observations of traffic conditions.
4. Making minor revisions to the traffic control plan to accommodate site conditions provided that the original intent of the traffic control plan is maintained and the revision has the concurrence of both the Contractor and the Engineer.
5. Attending traffic control coordinating meetings or coordination activities as necessary for full understanding and effective performance.
6. Ensuring that all needed traffic control devices and equipment are available and in good working condition prior to the need to install or utilize them.

The TCS may perform the Work described by the Bid item for "Maintenance and Protection of Traffic Control" as long

as the duties of the TCS are accomplished. Possession of a current flagging card by the TCS is mandatory.

A reflective vest and a hard hat shall be worn by the TCS.

1-10.2(4) CONTRACTOR'S REFUSAL OR FAILURE TO ACT

Upon failure or refusal of the Contractor to comply with the Engineer's written notice to:

1. Provide adequate flaggers,
2. Provide, erect, maintain, and remove, as applicable, barricades, signs, lights, on-site or off-site detours or detour bridges, or
3. Provide any work required by Section 1-07.23.

The Engineer shall have the option to do one or any combination of the following:

- 1) Suspend the Work without further notice to the Contractor or the Contractor's Surety until the Contractor complies with the Engineer's order (see Section 1-08.6);
- 2) Immediately provide an off-duty uniformed peace officer;
- 3) Immediately provide flagging by Owner forces or by others; and/or
- 4) Provide, erect, maintain and remove barricades, signs and lights by Owner forces or by others.

All costs related to items 1), 2), 3), and 4) will be deducted from any progress payments due or coming due the Contractor as provided in Section 1-09.9(3).

The above options shall not bar the Owner from exercising other remedies because of the Contractor's failure or refusal to comply with a contractual obligation.

1-10.2(5) TRAFFIC CONTROL PLANS

1-10.2(5)A CONTENT AND SUBMITTAL REQUIREMENTS

Based on the Contractor's intended method of performing the Work, the Contractor shall develop, adopt, and submit to the Engineer a specific Traffic Control Plan (TCP) or plans for protecting and controlling pedestrian, bicycle and vehicle traffic during construction operations. A separate TCP is required for each work location within the street Right of Way. When the site cannot be fully opened to traffic after work shift is completed, a separate traffic control plan is required for the after work shift conditions.

Typical plans may be submitted for areas with identical traffic requirements. Typical plans shall be clearly labeled to indicate all locations the plan is to be implemented. TCPs shall take into consideration any street and lane closure or other restrictions that may be specified in the Contract.

For non-SDOT projects, Traffic Control Plans shall be submitted to SDOT as part of the Street Use Permit application process. The submittal shall be made to SDOT and the Engineer at least 10 Working Days before planned implementation to allow for SDOT evaluation. A copy of the approved TCP shall be submitted to the Engineer for information and in case of any additional neighborhood restrictions on traffic. The Contractor shall not begin Work in the street Right of Way until an approved Traffic Control Plan for the specific location has been returned by the Engineer. Submittal shall be in accordance with Section 1-05.3.

Traffic Control Plans shall indicate:

1. Vehicular, bicycle, and pedestrian traffic routing,
2. Proposed location of flaggers, barricades, lighting, signing, and other traffic control devices in relation to existing and temporary roadway edges and lane markings,
3. Proposed number of working hours,
4. Arrangements for access to buildings within and immediately adjacent to Project Site,
5. Arrangements for emergency exiting from buildings within and immediately adjacent to the Project Site,
6. Anticipated driveway blockage resulting from construction operations,
7. Restrictions to on-street parking within immediate vicinity of the Project Site, including arrangements for hooding parking meters, and parking pay stations and associated appurtenances, as necessary,
8. Arrangements for temporary passenger and commercial loading and unloading zones, and temporary transit stop zones,
9. Identification and description of temporary lateral relocations of trolley overhead wire system if necessary to maintain trolley service,
10. Routing of construction trucks,
11. Coordination in sequencing traffic control with scheduling of Work and work locations, and
12. Sequencing and layout of temporary pavement marking and removal as it relates with the scheduling of Work and work locations.

When the signing of a particular area will be provided as detailed on one or more of the figures included in the Seattle Traffic Control Manual (STCM) without modification, the Contractor may reference the applicable figure number, shown in the manual, at the appropriate location on the Drawings. When this procedure is used, variable distances such as minimum length of taper shall be specified by the Contractor. The spacing proposed for barricades and cones shall also be specified.

If the Contractor's proposed pedestrian or traffic control measures differ from the traffic control requirements in the STCM, the Contractor's alternate Traffic Control Plan shall detail the specific location of each necessary construction sign, flagging, and other traffic control device required. The Contractor's alternate method for traffic and pedestrian control shall be developed in accordance with the same established standards for plan development demonstrated by the figures in the STCM. Acceptance of alternative traffic control measures shall be entirely at the discretion of the Engineer. The Contractor shall have no claim for an equitable adjustment:

- 1) For using alternative measures.
- 2) If the proposed alternate measures are rejected or modified.
- 3) If requests to use non-standard traffic control devices are rejected or modified.

The Contractor shall plan and schedule Contractor work activities to conform to and allow time for notifications, reviews, approvals, acceptances, and other conditions of the Contract. Most notifications are located in Section 1-07.28.

1-10.2(5)B CONFORMANCE TO ESTABLISHED STANDARDS

Flagging, signs, and all other traffic control devices and procedures furnished or provided shall conform to the standards established in the current version (in effect on the Day the Work was advertised for Bid) of the "Manual on Uniform Traffic Control Devices for Streets and Highways" as modified and adopted by WSDOT (hereinafter referred to as the "MUTCD"), as supplemented by the current edition of The City of Seattle "Traffic Control Manual for In-Street Work" (hereinafter referred to as the "Seattle Traffic Control Manual" (STCM)), and such additional requirements as may be included in the Contract. The Revised Code of Washington (RCW) 47.36, Traffic Control Devices, requires traffic control devices along city streets to conform to the WSDOT adopted standards to the extent possible.

The WSDOT adopted version of the "MUTCD" may be accessed at:

<http://www.wsdot.wa.gov/Publications/Manuals/M24-01.htm>

The City of Seattle "Seattle Traffic Control Manual" may be accessed at:

<http://www.seattle.gov/transportation/trafficcontrolmanual.htm>

Judgment of the quality of devices furnished will be based upon *Quality Guidelines for Temporary Traffic Control Devices*, published by the American Traffic Safety Services Association. Copies of the *MUTCD* and *Quality Guidelines for Temporary Traffic Control Devices* may be purchased from the American Traffic Safety Services Association, 15 Riverside Parkway, Suite 100, Fredericksburg, Virginia 22406-1022. The *Washington State Modifications to the MUTCD* may be obtained from the Department of Transportation, Olympia, Washington 98504.

In addition to the standards of the MUTCD, and the described above, the Contractor shall use crashworthy devices. The National Cooperative Highway Research Project (NCHRP) Report 350 has established requirements for crash testing. Workzone devices are divided into four categories. Each of those categories and, where applicable, is described below:

Category 1 includes those items that are small and lightweight, channelizing, and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, flexible delineator posts, and plastic drums. All Category 1 devices used on the project shall meet the requirements of NCHRP 350 as certified by the manufacturer of the device.

Category 2 includes devices that are not expected to produce significant vehicular velocity change, but may otherwise be hazardous. Examples of this class are barricades, portable sign supports and signs, intrusion alarms and vertical panels. All Category 2 devices shall meet the requirements of NCHRP 350. For the purpose of definition, a sign support and sign shall be considered a single unit. A new sign may be purchased for an existing sign support and the entire unit will be defined as "existing equipment."

Category 3 is for hardware expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. Barriers, fixed sign supports, crash cushions, and other work zone devices not meeting the definitions of Category 1 or 2 are examples from this category. Many Category 3 devices are defined in the design of the project. Where this is the case, NCHRP 350 requirements have been incorporated into the design and the Contractor complies with the requirements by constructing devices according to the Contract Documents and Specifications. Where the device is a product chosen by the Contractor, the device chosen shall be compliant with the requirements of NCHRP 350.

Category 4 includes portable or trailer-mounted devices such as arrow displays, temporary traffic signals, area lighting supports, and portable changeable message signs. Crash testing is not required for these devices.

The condition of signs and traffic control devices shall be acceptable or marginal as defined in the book *Quality Guidelines for Temporary Traffic Control Devices*. The Contractor's TCM and TCS shall be responsible for assuring that temporary traffic control devices and materials comply with these Specifications. If the Engineer finds that a sign or traffic control device is determined to be unacceptable, it shall be removed from the project and replaced within 12-hours of notification. The Engineer's decision on the condition of a sign or traffic control device shall be final.

1-10.2(5)C GENERAL TRAFFIC CONTROL RESTRICTIONS

In addition to any street and lane closure restrictions specified in the Contract, traffic control plans shall be developed to comply with the following restrictions:

1. **Arterial Paving:** Arterial approaches to the streets being paved shall remain open to vehicular traffic for their full roadway widths except when paving across arterial crossings. During such periods, the cross

streets may be closed for a minimum amount of time as approved by the Engineer. Prior to the closure of any arterial cross street the Contractor shall submit to the Engineer a traffic control plan for the location detailing the traffic controls to be used to reroute traffic. Traffic shall not be rerouted without approval of the traffic control plan by the Engineer. The Contractor shall have no claim because of the traffic control plan being rejected or modified by the Engineer.

2. **Time of Work:** Except as may be otherwise itemized in the street and lane closure restrictions specified in the Project Manual, no Work shall be scheduled in the Traveled Way on arterials during "peak traffic hours" without written authorization from the Engineer. Unless otherwise specified, "peak traffic hours" are from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM with the following exceptions:
 - a. For the Central Business District (City of Seattle) peak hours are from 6:00 AM to 9:00 AM and 3:00 PM to 6:00 PM.
 - b. For Aurora Avenue (City of Seattle) peak hours are from 6:00 AM to 9:00 AM and 3:00 PM to 7:00 PM.

The Contractor shall discontinue Work if a conflict exists with special events such as parades, sporting events, miscellaneous rallies, and large public meetings or with seasonal conditions, such as the Holiday Construction Moratorium. Information concerning such events can usually be obtained from 206-684-5098.

3. **Holiday Construction Moratorium (City of Seattle Only):** No construction activities will be allowed on any portion of a project that lies within the Central Business District or the Pioneer Square area during the Christmas season, Thanksgiving Day through New Year's Day inclusive.

The Central Business District is that area within the boundaries of Interstate 5 on the east, Seneca Street on the south, 1st Avenue on the west, Virginia Street and Denny Way (east of Fairview Avenue) on the north.

The Pioneer Square Area is that area within the boundaries of Alaskan Way on the west, 2nd Avenue and 2nd Avenue South on the east, Columbia Street on the north and King Street on the south.
4. **Parking:** Where parking restricts traffic flow or is a hazard to through traffic or to the construction work, parking may be restricted either entirely or during the time when it creates a hazard. Parking restrictions may be requested by the Contractor and upon approval of the Engineer be established within construction and maintenance areas.

In areas where (City of Seattle) parking meters are present, the Contractor shall apply to SDOT for installation of meter covers restricting such parking. In areas with parking pay stations and sidewalk containing D-22 signage ("Pay R", "Pay L", "Pay H", and "Pay RL" signs and posts), and "numbered" base plates, the Contractor shall apply to SDOT for "no parking markers" restricting such parking.

The Contractor shall reimburse SDOT for lost parking revenue unless this is an SDOT Project.

Where no meters, parking pay stations, and D-22 signage and "numbered" base plates are present, the Contractor shall contact SDOT so that the Contractor may install "NO PARKING" (T038 or T039) easel signs. Signs must be inspected by a parking enforcement officer or uniformed peace officer 24 hours prior to enforcement. See Section 1-07.28, item 3) for notification requirements. Load zone, consulate parking zone, and carpool parking zone restrictions shall be done in accordance with the STCM.

"NO PARKING" signs shall conform in message, dimension and color as indicated in Part V of the STCM. Spacing of signs shall be in accordance with Project Site conditions.

"NO PARKING" (T038 or T039) easel signs should be installed at an approximate interval of 50 feet to 75 feet, with a minimum of four units, per each full block. For partial block parking prohibition, R-101's or T-38's or T039's should be installed at approximately 50-foot intervals with R-160 signs at the terminus as shown in Figure V-1 of the STCM.

The employees of the Contractor shall not park their private vehicles on the street, at the Project Site, or in commercial areas where general parking has been prohibited for construction or safety purposes.

1-10.2(5)D **RESERVED**

1-10.3 **TRAFFIC CONTROL LABOR, PROCEDURES AND DEVICES**

1-10.3(1) **TRAFFIC CONTROL LABOR**

The Contractor shall furnish all personnel for flagging, spotting, for the execution of all procedures related to temporary traffic control and for the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control traffic during construction operations.

Workers engaged as flaggers or spotters shall wear reflective vests and hard hats. During hours of darkness, white coveralls or white or yellow rain gear shall also be worn. The vests and other apparel shall be in conformance with Section 1-07.8.

1-10.3(1)A **FLAGGERS AND SPOTTERS**

Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the

Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. The flagging card shall be immediately available and shown to the Owner upon request.

Flagging stations shall be shown on Traffic Control Plans at locations where construction operations require stopping or diverting public traffic. Flagging stations shall be staffed only when flagging is required. This staffing may be continuous or intermittent, depending on the nature of the construction activity. Whenever a flagger is not required to stop or divert traffic, the flagger shall move away from the flagging station to a safer location. During hours of darkness, flagging stations shall be illuminated in a manner that insures that flaggers can easily be seen but that does not cause glare to the traveling public. Flaggers shall be equipped with portable two-way radios, with a range suitable for the project. The radios shall be capable of having direct contact with project management (foremen, superintendents, etc.).

The Contractor shall furnish Stop/Slow paddles conforming to the requirements of Section 9-38.1 for all flagging operations.

Spotting stations shall be shown on Traffic Control Plans at locations where a spotter can detect errant drivers or other hazards and provide an effective warning to other workers. Spotting stations will not be allowed at locations where the spotter will be in unnecessary danger. The Contractor shall furnish noise-makers or other effective warning devices for spotting operations. The duties of a spotter shall not include flagging.

1-10.3(1)B OTHER TRAFFIC CONTROL LABOR

In addition to flagging or spotting duties, the Contractor shall provide personnel for all other traffic control procedures required by the construction operations and for the labor to install, maintain and remove any traffic control devices shown on Traffic Control Plans.

Prior to performing any traffic control Work on the Project Site, these personnel should be trained in work zone safety.

1-10.3(1)C TRAFFIC CONTROL PEACE OFFICERS

Only an off-duty uniformed peace officer shall be used as a flagger to:

1. Countermand a traffic signal indication at a signalized intersection,
2. Direct vehicle and pedestrian traffic when a traffic signal indication is turned off or inoperative, and
3. Perform flagging duties when and where indicated in the accepted Traffic Control Plan or elsewhere in the Contract. If flagging duties indicated exclude the required uses in item 1 and 2 above, then the Engineer may direct the Contractor to cease use of the Uniformed Peace Officer prior to the next work day.

Officers are also required for new traffic signal Work; see Section 8-31.3(1)A. The off-duty uniformed peace officer shall be provided by the Contractor.

The Contractor shall submit to the Engineer on the next Working Day, a copy of the daily time card for Traffic Control Peace Officers showing the hours actually worked countermanding a signal at a signalized intersection and the hours actually worked directing vehicular and pedestrian traffic at a signalized intersection when the traffic signal is inoperative or turned off.

1-10.3(2) TRAFFIC CONTROL PROCEDURES

1-10.3(2)A ONE-WAY TRAFFIC CONTROL

The project Work may require that traffic be maintained on a portion of the Roadway during the progress of the Work using one-way traffic control. If this is the case, the Contractor's operation shall be confined to one-half the Roadway, permitting traffic on the other half. If shown on an approved traffic control plan or directed by the Engineer, one-way traffic control, in accordance with the MUTCD, shall be provided and shall also conform to the following requirements:

In any one-way traffic control configuration, side roads and approaches will be closed or controlled by a flagger or by appropriate approved signing. A side road flagger will coordinate with end flaggers where there is line of sight and with the pilot car where the end flaggers cannot be seen.

Queues of vehicles will be allowed to take turns passing through the workzone in the single open lane. When one-way traffic control is in effect, Contractor vehicles shall not use the open traffic lane except while following the same rules and routes required of the public traffic.

As conditions permit, the Contractor shall, at the end of each Day, leave the Work area in such condition that it can be traveled without damage to the Work, without danger to traffic, and without one-way traffic control. If, in the opinion of the Engineer, one-way traffic control cannot be dispensed with after working hours, then the operation will be continued throughout the non-working hours.

1-10.3(2)B RESERVED

1-10.3(2)C LANE CLOSURE SETUP/TAKEDOWN

Where allowed by the Contract and where shown on approved traffic control plans or directed by the Engineer, the Contractor shall set up traffic control measures to close one or more lanes of a multi-lane facility. When this is to occur and called for in the approved traffic control plan, the following sequence shall be followed:

1. Advance warning signs are set up on the Shoulder of the Roadway opposite the lane to be closed,
2. Advance warning signs are set up on the same Shoulder as the lane to be closed,
3. If required, a transportable attenuator, with arrow board, is moved into place at the beginning of the closure taper,

4. Channelization devices are placed to mark the taper and the length of the closure as shown on the traffic control plan.

If transportable attenuator /arrow board is required, once the lane is closed, the transportable attenuator /arrow board combination may be replaced with an arrow board without attenuator.

If additional lanes are to be closed, they shall be closed in sequence with previous lane closures using the same sequence of activities. If an arrow board is required, each closed lane shall be marked with a separate arrow board at all times.

Traffic control for lane closures shall be removed in the reverse order of its installation.

1-10.3(2)D MOBILE OPERATIONS

Where construction operations are such that movement along the length of a Roadway is continuous or near-continuous to the extent that a stationary traffic control layout will not be effective, the Contractor shall implement a moving, or mobile, traffic control scheme. Such moving control shall always be conducted in the same direction as the adjacent traffic.

Where shown on an approved traffic control plan or where directed by the Engineer, mobile traffic control shall consist of portable equipment, moving with the operation. A portable changeable message sign shall be established in advance of the operation and far enough back to provide warning of both the operation and of any queue of traffic that has formed during the operation. The advance sign shall be continuously moved to stay near the back of the queue at all times. A truck-mounted attenuator, with arrow board, shall be positioned and maintained at a fixed distance upstream of the Work. A shadow vehicle, with truck-mounted attenuator, shall be positioned and maintained immediately upstream of the Work.

1-10.3(2)E PATROL & MAINTAIN TRAFFIC CONTROL MEASURES

At all times, when temporary traffic control measures are in place, the Contractor shall provide for patrolling and maintaining these measures. The Work shall consist of resetting mislocated devices, assuring visibility of all devices, cleaning and repairing where necessary, providing maintenance for all equipment, including replacing batteries and light bulbs as well as keeping motorized and electronic items functioning, and adjusting the location of devices to respond to actual conditions, such as queue length, unanticipated traffic conflicts and other areas where planned traffic control has proven ineffective.

This Work shall be performed by the Contractor, either by or under the direction of the Traffic Control Supervisor. Personnel, with vehicles if necessary, shall be dispatched so that all traffic control can be reviewed at least once per hour during working hours and at least once during each Non-Working Day.

1-10.3(3) TRAFFIC CONTROL DEVICES

1-10.3(3)A CONSTRUCTION SIGNS

All construction signs required by approved traffic control plans, as well as any other appropriate signs directed by the Engineer shall be furnished by the Contractor. The Contractor shall provide the posts or supports and erect and maintain the signs in a clean, neat, and presentable condition until the need for them has ended. Post mounted signs shall be installed as shown in the Standard Drawings. When the need for construction signs has ended, the Contractor, upon approval of the Engineer, shall remove all signs, posts, and supports from the project and they shall remain the property of the Contractor.

No passing zones on the existing Roadway that are marked with paint striping and which striping is to be obliterated by construction operations shall be replaced by "Do Not Pass" and "Pass With Care" signs. The Contractor shall provide and install the posts and signs. The signs shall be maintained by the Contractor until they are removed or until the Contract is Physically Completed. When the project includes striping by the Contractor, the signs and posts shall be removed by the Contractor when the no passing zones are reestablished by striping. The signs and posts will become the property of the Contractor. When the Contractor is not responsible for striping and when the striping by others is not completed when the project is Physically Completed, the posts and signs shall be left in place and shall become the property of the Owner.

All existing signs, new permanent signs installed under this Contract, and construction signs installed under this Contract that are inappropriate for the traffic configuration at a given time shall be removed or completely covered with metal, plywood, or an Engineer approved product specifically manufactured for sign covering during periods when they are not needed.

Construction signs will be divided into two classes. Class A construction signs are those signs that remain in service throughout the construction or during a major phase of the Work. They are mounted on posts, existing fixed Structures, or substantial supports of a semi-permanent nature. Class A signs will be designated as such on the approved Traffic Control Plan. "Do Not Pass" and "Pass With Care" signs are classified as Class A construction signs. Sign and support installation for Class A signs shall be in accordance with the Contract Drawings or the Standard Drawings. Class B construction signs are those signs that are placed and removed daily, or are used for short durations which may extend for one or more Days. They are mounted on portable or temporary mountings.

Where it is necessary to add weight to signs for stability, the only allowed method will be a bag of sand that will rupture on impact. The bag of sand shall have a maximum weight of 40-pounds, and shall be suspended no more than 1-foot from the ground.

Signs, posts, or supports that are lost, stolen, damaged, destroyed, or which the Engineer deems to be unacceptable while their use is required on the project shall be replaced by the Contractor.

1-10.3(3)B SEQUENTIAL ARROW SIGNS

Where shown on an approved traffic control plan or where ordered by the Engineer, the Contractor shall provide,

operate and maintain sequential arrow signs. In some locations, the sign will be shown as a unit with an attenuator. In other locations, the plan will indicate a stand-alone unit.

1-10.3(3)C PORTABLE CHANGEABLE MESSAGE SIGN

Where shown on an approved traffic control plan or where ordered by the Engineer, the Contractor shall provide, operate and maintain portable changeable message signs. These signs shall be available, on-site, for the entire duration of their projected use.

1-10.3(3)D BARRICADES

Where shown on an approved traffic control plan or where ordered by the Engineer, the Contractor shall provide, install and maintain barricades. Barricades shall be kept in good repair and shall be removed immediately when, in the opinion of the Engineer, they are no longer functioning as designed.

Where it is necessary to add weight to barricades for stability, the only allowed method will be a bag of sand that will rupture on impact. The bag of sand shall have a maximum weight of 40-pounds, and shall be suspended no more than 1-foot from the ground.

1-10.3(3)E TRAFFIC SAFETY DRUMS

Where shown on an approved Traffic Control Plan, or where ordered by the Engineer, the Contractor shall provide, install and maintain traffic safety drums.

Used drums may be utilized, provided all drums used on the project are of essentially the same configuration.

The drums shall be designed to resist overturning by means of a weighted lower unit that will separate from the drum when impacted by a vehicle.

Drums shall be regularly maintained to ensure that they are clean and that the drum and reflective Material are in good condition. If the Engineer determines that a drum has been damaged beyond usefulness, or provides inadequate reflectivity, a replacement drum shall be furnished.

When the Engineer determines that the drums are no longer required, they shall be removed from the project and shall remain the property of the Contractor.

1-10.3(3)F BARRIER DRUMS

Where shown on approved Traffic Control Plans and as ordered by the Engineer, barrier drums shall be placed on temporary concrete barrier at the following approximate spacing:

Concrete Barrier Placement	Barrier Drum Spacing in Feet
Tangents $\frac{1}{2}$ -mile or less ¹	2 times posted speed limit
Tangents greater than $\frac{1}{2}$ -mile ¹	4 times posted speed limit
Tapers and Curves ²	Posted speed limit

Note ¹ A minimum of 3 barrier drums shall be used.

Note ² A minimum of 5 barrier drums shall be used.

Temporary concrete barrier reflectors may be excluded when using barrier drums.

Both legs of the barrier drums shall be completely filled with sand. The top oval should not be filled.

Used barrier drums may be used, provided all barrier drums used on the project are of essentially the same configuration.

Barrier drums shall be regularly maintained to ensure that they are clean and that the barrier drum and reflective Material are in good condition. If the Engineer determines that a barrier drum has been damaged beyond usefulness, or provides inadequate reflectivity, a replacement barrier drum shall be furnished.

When the Engineer determines that the drums are no longer required, they shall be removed from the project and shall remain the property of the Contractor.

1-10.3(3)G TRAFFIC CONES

Where shown on an approved traffic control plan or where ordered by the Engineer, the Contractor shall provide, install and maintain traffic cones. Cones shall be kept in good repair and shall be removed immediately when directed by the Engineer. Where wind or moving traffic frequently displace cones, an effective method of stabilizing cones, such as stacking two together at each location, shall be employed.

1-10.3(3)H TUBULAR MARKERS

Where shown on an approved traffic control plan or where ordered by the Engineer, the Contractor shall provide,

install and maintain tubular markers. Tubular markers shall be kept in good repair and shall be removed immediately when directed by the Engineer. Tubular markers are secondary devices and are not to be used as substitutes for cones or other delineation devices without an approved traffic control plan.

Where the Traffic Control Plan shows pavement-mounted tubular markers, the adhesive used to fasten the base to the pavement shall be suitable for the purpose, as approved by the Engineer. During the removal of pavement-mounted tubular markers, care shall be taken to avoid damage to the existing pavement. Any such damage shall be repaired by the Contractor at no cost to the Owner.

1-10.3(3)I WARNING LIGHTS AND FLASHERS

Where shown attached to traffic control devices on an approved traffic control plan or where ordered by the Engineer, the Contractor shall provide and maintain flashing warning lights. Lights attached to advance warning signs shall be Type B, high-intensity. Lights attached to traffic safety drums, barricades or other signs shall be Type C, steady-burning low intensity or, where attention is to be directed to a specific device, Type A, flashing low-intensity units.

1-10.3(3)J TRANSPORTABLE ATTENUATOR

Where shown on an approved traffic control plan or where ordered by the Engineer, the Contractor shall provide, operate and maintain transportable impact attenuators. These attenuators shall be available, on-site, for the entire duration of their projected use.

The transportable attenuator shall be positioned to separate and protect construction workzone activities from normal traffic flow.

During use, the attenuator shall be in the full down-and-locked position. For stationary operations, the host vehicle's parking brake shall be set.

A transportable attenuator may be used in lieu of a temporary impact attenuator when approved by the Engineer as part of a stage traffic control shift to protect an object such as blunt barrier end or bridge pier column that is located within the work zone clear zone. This use of a transportable attenuator is restricted to a maximum of 3-days or approved extension by the Engineer.

1-10.3(3)K PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL

Where shown on an approved traffic control plan, the Contractor shall provide, operate, maintain and remove a portable temporary traffic control signal to provide alternating one-lane traffic operations on a two-way facility. A portable temporary traffic control signal shall be defined as a traffic control signal that may be trailer mounted, fully self-contained unit and designed so that it can be easily transported and deployed at different locations.

The Contractor shall submit the manufacturer's specifications for the portable temporary traffic control signal to the Engineer for approval at the preconstruction meeting or a minimum of two weeks prior to installation, whichever occurs first. A manufacturer's representative is required to demonstrate the capabilities of the temporary portable signal prior to approval and provide training to Contractor personnel as necessary. The Contractor shall provide a minimum of one manufacturer trained operator on-site during all hours of portable traffic control signal operation.

Remote manual control of the portable traffic control signal by the Traffic Control Supervisor (TCS) or a qualified operator may be allowed if necessitated by Work area or traffic conditions and as approved by the Engineer.

Maximum length between signal heads shall be 1500-ft unless otherwise shown on the Drawings or ordered by the Engineer in accordance with Section 1-04.4.

The Engineer will inspect the signal system at initial installation/operation and either provide or approve the signal timing. Final approval will be based on the results of the operational inspection.

If repairs or adjustments are required, the Contractor shall respond immediately and provide flagger traffic control if the Roadway cannot be safely reopened to two-way traffic, until such time that repairs can be made. The Contractor shall either repair the signal or replace with a backup unit within 24-hours.

The Engineer will monitor the traffic, signal operation and order adjustments as needed based on traffic conditions. Timing adjustments require the approval of the Engineer.

As shown on the traffic control plan, temporary stop bars and "STOP HERE ON RED Signs (R10-6) shall be provided at the location traffic is expected to stop during the red display. The stop bar locations shall be illuminated at night. The illumination shall be the responsibility of the Contractor and shall be adjusted to ensure minimal glare to motorists.

When not in operation, remove signal heads from the view of traffic or cover signal heads with bags made of non-ripping Material specifically designed for covering signal heads. Do not use trash bags of any type. Remove, cover, fold, or turn all inappropriate signs so that they are not readable by oncoming traffic.

The Contractor shall provide and install all field wiring to make a complete and operational portable traffic control signal and shall maintain the system throughout the life of the Contract.

Portable temporary traffic signals shall not be installed within 300-feet of at-grade railroad crossing, or if driveways or Roadway access points are located between the portable temporary traffic control signals.

1-10.3(3)L PAINT LINES AND LEGENDS

When paint lines are obliterated due to construction activities or pavement restoration, temporary pressure-sensitive pavement marking tape, traffic buttons, temporary lane markers, or delineators shall be installed where designated by the

Engineer. These temporary features shall be removed only upon installation of permanent traffic channelization.

Temporary centerline striping shall consist of placing strips of pressure sensitive pavement marking tape at 10 to 15 foot intervals along the centerline. Temporary marking tape shall be placed in sets of two 12-inch strips of yellow 4-inch wide marking tape set 4 inches apart and parallel to the center line with each set of 1-foot double line spaced 10 to 15 feet along the center line of the roadway, or the equivalent surface area in temporary lane markers (TLMs). Temporary stop bars shall consist of a 12-inch wide stop bar made up of three parallel 4-inch strips of temporary pavement marking tape placed at locations designated by the Engineer. All other temporary pavement markings utilizing pavement-marking tape shall be designated by the Engineer.

Pressure-sensitive pavement marking tape used on the wearing course prior to installation of permanent lane markers, traffic buttons, or permanent paint striping shall be removed from the pavement current with, or immediately subsequent to, the installation of permanent pavement markings. Temporary pavement markings shall be maintained in serviceable condition by the Contractor for the duration of time it is in use. Layout and marking in preparation for application and the application and removal of the temporary striping shall be the Contractor's responsibility.

Temporary pavement marking tape shall meet the requirements of Section 9-29.4. Damage to the pavement resulting from removal of temporary pavement marking, including the use of high heat sources, shall be repaired by the Contractor at no expense to the Owner

1-10.3(3)M LIGHTING DEVICES

Roadway and pedestrian illumination systems shall be maintained in operation for all traveled ways open to traffic. See Section 8-30.3(1).

Barricades or drums used at night shall be equipped with approved yellow warning lights. The Contractor shall keep existing traffic signal systems and pedestrian and street lighting systems in operation for the benefit and safety of the traveling public during progress of the Work, unless otherwise directed by the Engineer. The Owner will continue the routine maintenance of traffic signal, pedestrian and street lighting systems. The Contractor shall be responsible for replacing missing or damaged signs and posts.

1-10.3(3)N SPEED AND PARKING CONTROL

In those areas where construction operations have changed road conditions, such additional hazards as reduced lane width, open trenches, temporary roadway, etc., may be considered as evidence of the need for an alteration of the legal (or posted) speed limit. Construction operations may also require the occupancy of, or restrict access to public parking. In these cases, requests for alteration of the legal speed limits or for parking control on streets within the City of Seattle require a Traffic Permit.

To request covering of parking meter(s) and placing no parking markers on "numbered" base plates where parking pay stations exist, to reserve metered parking for construction or traffic control use, and to obtain Traffic Permit see Section 1-07.28. Requests for alteration of the legal speed limits or parking control on streets outside the City of Seattle shall be submitted to the appropriate governing jurisdiction(s) and copied to the Engineer.

All costs related to speed limit revisions and parking control including payment for lost parking revenue shall be borne by the Contractor at no additional cost to the Owner. This does not apply if this is an SDOT project or if it is otherwise provided for in the contract.

1-10.3(3)O RESERVED

1-10.4 MEASUREMENT

Measurement for "Maintenance and Protection of Traffic Control including Flagging" will be by the lump sum.

Measurement for "Traffic Control Peace Officers" will be by the hour and will be made for the actual hours worked by a uniformed off-duty peace officer as specified in Section 1-10.3(1)C. No measurement will be made for standby time, show-up time, and all other time not in accordance with Section 1-10.3(1)C.

Class A and Class B signs will not be measured.

1-10.5 PAYMENT

Compensation for the cost necessary to complete the work described in Section 1-10 will be made at the Bid item prices Bid only for the Bid items listed or referenced below:

1. **"Maintenance and Protection of Traffic Control including Flagging"** per lump sum.

Payment for "Maintenance and Protection of Traffic Control including Flagging" shall include all costs for the Work required to control traffic as specified in Section 1-10 not including Traffic Control Peace Officers.

2. **"Traffic Control Peace Officers"** per hour.

Payment for "Traffic Control Peace Officers" shall include all costs for the Work specified in Section 1-10.3(1)C.

3. **Other payment information.**

When the Contractor's employees are called out to provide emergency traffic protection during non-working hours, payment for labor, equipment, and Materials deemed necessary by the Engineer will be made in accordance with Section 1-04.4.